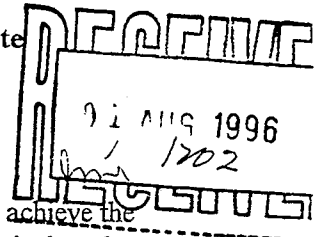




**Consultants Report**  
ITTO LUS Project PD 47/88 Rev. 3(1)  
Implemented by: Forest Products Research and Development Institute  
UPLB Campus, College, Laguna



**1.0 Scope of the Consultancy**

The ITTO/FPRDI Lesser-Used species project PD 47/88 Rev. 3(1) was developed to achieve the following objectives and goals: (1) generate basic information on the physical, mechanical, and processing characteristics of lesser-used timber species in the Philippines, (2) identify appropriate end-uses for LUS, (3) develop an economic analysis for utilizing LUS, and (4) develop a promotional strategy to encourage the adoption of LUS by local processors.

To provide guidance and assistance in implementing the fourth goal, the project provided for contracting the services of an international consultant experienced in the promotion and marketing of LUS. While the original project document called for a total of three visits by the consultant (occurring in the first, third, and fifth years of the project), difficulties in locating an appropriate consultant meant that the number of visits was reduced to two (occurring in the fourth and fifth years). This delay has had some implications for the way that goal four will be developed and implemented. The first visit of the international consultant occurred during the period 5 June, 1996 to 4 July, 1996 while the second, and final, visit is tentatively scheduled for July/August, 1997.

The terms of reference for the international consultant were defined as follows:

- (1) Identify and recommend appropriate technologies for piloting and promoting LUS.
- (2) Recommend new and traditional products from LUS with market potential.
- (3) Prepare and recommend appropriate promotion and marketing strategies for LUS.
- (4) Prepare an appropriate method or model for appraisal and evaluation on the effectiveness of promoting LUS in the marketplace.

**2.0 Status of Promotion/Marketing Component of the Project**

In order to achieve a deeper understanding of the problems and opportunities surrounding the more efficient utilization of LUS in the Philippines, the following strategies were employed by the international consultant during the first visit: (a) personal interviews were conducted with industry managers and representatives of industry associations, (b) personal interviews were conducted with researchers at affiliated and cooperating forestry related public institutions, (c) personal interviews were conducted with faculty members in the College of Forestry and the Department of Wood Science and Technology, University of the Philippines, and (d) extensive meetings were held with both the project leaders and the individual study leaders at FPRDI.

## *2.1 Promotion Activities for LUS*

The objective of the promotional component of the LUS project is to create general awareness of LUS and encourage local manufacturers and end-users to adopt LUS as substitutes for the traditional timber species. The specific goals of the promotional component of the project include:

- The development of an atlas of LUS to provide detailed information on the availability and stocking of each species, describe the technical characteristics and potential end-uses of each species, and present a photograph of each species.
- The development of a brochure describing the appropriate wood utilization technologies for each LUS and describing the role of FPRDI as an agent for facilitating the transfer of those technologies.
- The production of a series of value-added wood products using LUS to demonstrate potential end-uses at industry exhibitions and international trade shows.
- Coordinate and implement technology promotion activities, including technology investor forums and technology exhibitions.
- Facilitate radio and television interviews on the potential for utilizing LUS, and appropriate processing technologies.
- The establishment of a methodology to evaluate the effectiveness of the promotional strategy in gaining acceptance for LUS and appropriate processing technologies.

### *2.1.1 Status of the promotional activities for the LUS project*

Following a series of meetings with Mr. Felix Tamalong (study leader, promotion) it became obvious that the promotional component of the project is being well conceived and managed. In particular, it was encouraging to see that the research results from many of the earlier studies have been obtained for inclusion in the promotional materials being developed. The efficient transfer of information between the different study groups has ensured that the promotion study is on schedule, within its budget, and will provide useful information for industry managers.

It was also noted during discussions with industry managers and associations that there appears to be widespread support for the LUS project. The cooperative relationship appears to go both ways. Industry managers are providing critical input to the project in terms of raw material acquisition and participation on project committees while FPRDI has indicated its strong commitment to the industry by providing technology transfer support as well as manufacturing prototype products for evaluation by industry participants. The cooperative relationship between FPRDI and the forest products industry will help to promote the efficient transfer of information and technology related to the more efficient utilization of LUS.

In terms of specific achievements in the promotion study, several activities have already been completed while others are currently ongoing. Those activities that have been completed include the fabrication of a wide variety of value-added products from LUS, a manufacturing processing technology exhibition, and the production of a television interview entitled "The utilization of LUS as alternative raw materials for the forest based industries". The remaining project activities are currently ongoing and in various stages of completion. Based on my discussions with a broad range of interested parties and my personal observations during my visit, I am confident that the wide range of activities included in the promotion study will be completed on schedule and will provide an effective method for promoting the more efficient utilization of LUS.

## *2.2 Industry Survey on Promotional/Marketing Strategies for LUS*

One method for identifying effective promotional strategies involves surveying the opinions and perceptions of industry managers. This proactive, market-oriented approach can provide invaluable insights and guidance in designing an effective marketing strategy. While it would have been most effective if this information had been obtained earlier in the study, it is still not too late to make effective use of this information.

Given the geographically dispersed nature of the forest products industry in the Philippines, the most effective strategy for gathering data is through the use of a mail survey. The sample population will consist of those members of the forest products industry who are members of the following associations: the Philippine Wood Producers Association (PWPA: with 120 members), the Philippine Chamber of Furniture Industries (PCFI: with 300 members), and the CFIFI (100 members). The objectives of the industry survey will consist of: (a) identifying those promotional strategies that are perceived to be most effective in introducing LUS, (b) determining current use and export of LUS, and (c) identifying channels of information flow between producers and export customers that can be used to facilitate the introduction of LUS into foreign markets.

### *2.2.1 Status of the industry survey*

During my visit several meetings were held with a small group of study leaders to design and pre-test the survey questionnaire. The members of this group included Engr. Arnaldo Mosteiro, (Assistant Project Leader), Mr. Felix Tamalong, (Study Leader: Promotion and Marketing), Mr. Arsenio Ella, (Study Leader: Socio-Economic Aspects), and Ms. Emelyne Cortiquaerra, (Study Leader: Piloting of Technology and Products). The revisions suggested for the preliminary questionnaire will be incorporated into the final questionnaire by the consultant and 600 copies of the final questionnaire will be mailed to the research leaders at FPRDI.

Mailing lists for the industry survey will be obtained from the cooperating industry associations and the questionnaires will be mailed to participants at the beginning of September. Each questionnaire will be accompanied by a cover letter encouraging the participation of the respondent and each letter will be signed by the directors of FPRDI and the supporting industry associations. Follow-up phone calls and some personal visits will be made to encourage participation in the survey.

## *3.0 Recommendations and Areas of Concern*

It is unfortunate that the marketing component of the study was left until the end to implement. In particular, it would have been very useful to have had the marketing consultant involved in the early phases of the project to provide a linkage between the two phases of the project. In addition, it is important that FPRDI develop an in-house expertise in forest products marketing. While in the short-term this can be accomplished by sending a researcher on a short training program, it will not address the long-term problem of a lack of expertise in the conception and development of marketing studies.

There appears to be substantial support within the forest products industry and industry associations for a LUS exhibition. Several manufacturers indicated their willingness to manufacture products from LUS for exhibit while others have indicated that they would be willing to provide partial funding for an LUS exhibition. The idea of a LUS exhibition is appealing because it can actively involve manufacturers in the promotion of these species. However, it is important that researchers at FPRDI work to solidify support, especially financial support, within the forest products industry for this type of product exhibition. An LUS product exhibition would


provide an ideal forum within which to unveil the product/technology brochures and LUS atlas to a broad cross-section of the wood processing industry.

It is important that the project clearly provide information regarding the availability of the LUS being promoted as well as the likely future supply of these species. Previous research in the US and West Africa has indicated that the single most important factor influencing the adoption and utilization of non-traditional species is the availability of a reliable supply. Managers have indicated that they are much more willing to try a new species if the incentives and raw material supply are such that the risks associated with the material substitution process can be minimized. It is my understanding that this information is currently being collected from the appropriate government agencies.

Several study leaders have indicated that some problems were encountered in obtaining log and lumber specimens from other islands. Apparently there was some difficulty in getting the logs and lumber transported through the various inspection checkpoints, this despite the fact that the researchers had obtained the proper documentation from both the Department of Environment and Natural Resources and the Forest Management Bureau. The lack of a geographically representative sample of LUS could cause some problems in the future if it turns out that the physical and mechanical properties of the LUS are not uniform throughout the Philippines.

Finally, I would like to emphasize the fact that I found the entire project to be extremely well organized and managed. Individual study leaders have worked hard to finish their work assignments in a timely and professional manner. The quality of the data obtained from the individual studies was quite impressive. Overall, I was very impressed with the progress of the project and look forward to working with the researchers at FPRDI in the future.

Submitted by,

Dr. Ivan Eastin   
Project Consultant

15 July, 1996

**STAND AND STOCK TABLE OF SOME LESSER-USED PHILIPPINE WOODS  
By Region**

**Region 1**

<u>Old Growth</u>			<u>Residual</u>		
Species	Total Volume (in m <sup>3</sup> /ha)		Species	Total Volume (in m <sup>3</sup> /ha)	
Ulaian - <i>Lithocarpus ilanosii</i>	7.0		Ulaian - <i>Lithocarpus ilanosii</i>	4.9	
Bitanghol - <i>Calophyllum blancoi</i>	6.0		Pahatan - <i>Mangifera altissima</i>	3.5	
Duguan - <i>Myristica philippense</i>	3.7		Bitanghol - <i>Calophyllum blancoi</i>	3.5	
Gatasan - <i>Garcinia venulosa</i>	3.2		Rarang - <i>Erythrina subumbrans</i>	2.0	
Nato - <i>Palaquium luzoniense</i>	1.6		Nato - <i>Palaquium luzoniense</i>	1.3	

**Region 2**

Ulaian - <i>Lithocarpus ilanosii</i>	6.8	Ulaian - <i>Lithocarpus ilanosii</i>	7.9
Bitanghol - <i>Calophyllum blancoi</i>	5.0	Bitanghol - <i>Calophyllum blancoi</i>	3.2
Pahatan - <i>Mangifera altissima</i>	1.9	Nato - <i>Palaquium luzoniense</i>	2.1
Nato - <i>Palaquium luzoniense</i>	1.8	Malugai - <i>Pometia pinnata</i>	1.7
Malugai - <i>Pometia pinnata</i>	1.4	Pahatan - <i>Mangifera altissima</i>	1.4
		Duguan - <i>Myristica philippense</i>	1.4
		Binuang - <i>Octomeles sumatrana</i>	1.0

**Region 3**

Pahatan - <i>Mangifera altissima</i>	7.3	Pahatan - <i>Mangifera altissima</i>	6.1
Ulaian - <i>Lithocarpus ilanosii</i>	3.5	Ulaian - <i>Lithocarpus ilanosii</i>	3.2
Bolong-eta - <i>Diospyros pilosanthera</i>	2.9	Bitanghol - <i>Calophyllum blancoi</i>	2.6
Lamio - <i>Dracontomelon edule</i>	2.4	Duguan - <i>Myristica philippense</i>	2.4
Dalingdingan - <i>Hopea foxworthyi</i>	2.3	Nato - <i>Palaquium luzoniense</i>	1.3
Malugai - <i>Pometia pinnata</i>	2.1	Bolong-eta - <i>Diospyros pilosanthera</i>	5.2

**Region 4 Part 1**

<u>Old Growth</u>		<u>Residual</u>	
Nato - <i>Palaquium luzoniense</i>	4.7	Nato - <i>Palaquium luzoniense</i>	4.0
Ulaian - <i>Lithocarpus ilanosii</i>	3.9	Ulaian - <i>Lithocarpus ilanosii</i>	4.1
Pahatan - <i>Mangifera altissima</i>	3.3	Malugai - <i>Pometia pinnata</i>	1.8
Bitanghol - <i>Calophyllum blancoi</i>	2.4	Pahatan - <i>Mangifera altissima</i>	1.7
Duguan - <i>Myristica philippense</i>	2.0	Bolong-eta - <i>Diospyros pilosanthera</i>	1.5
Bolong-eta - <i>Diospyros pilosanthera</i>	1.9	Amugis - <i>Koordersiodendron pinnatum</i>	1.3
		Duguan - <i>Myristica philippense</i>	1.3
		Bitanghol - <i>Calophyllum blancoi</i>	1.3

#### Region 4 Part 2

Amugis	- <i>Koordersiodendron pinnatum</i>	8.2	Amugis	- <i>Koordersiodendron pinnatum</i>	6.8
Nato	- <i>Palaquium luzoniense</i>	10.3	Nato	- <i>Palaquium luzoniense</i>	7.5
Malugai	- <i>Pometia pinnata</i>	5.2	Malugai	- <i>Pometia pinnata</i>	7.1
Ulaian	- <i>Lithocarpus llanosii</i>	4.0	Ulaian	- <i>Lithocarpus llanosii</i>	3.1
Manggis	- <i>Koompassia excelsa</i>	3.3	Manggis	- <i>Koompassia excelsa</i>	2.5
Bulala	- <i>Nephelium philippinense</i>	3.0	Bulala	- <i>Nephelium philippinense</i>	2.1
Pahutan	- <i>Mangifera altissima</i>	2.9	Almaciga	- <i>Agathis philippinensis</i>	2.0
Bitanghol	- <i>Calophyllum blancoi</i>	2.6	Pahutan	- <i>Mangifera altissima</i>	1.9
Duguan	- <i>Myristica pilosanthera</i>	2.2	Binuang	- <i>Octomeles</i>	
			<i>sumatrana</i>		1.8
			Bitanghol	- <i>Calophyllum blancoi</i>	1.6
			Duguan	- <i>Myristica philippense</i>	1.5

#### Region 5

Bitanghol	- <i>Calophyllum blancoi</i>	3.4	Malugai	- <i>Pometia pinnata</i>	1.9
Nato	- <i>Palaquium luzoniense</i>	3.1	Nato	- <i>Palaquium luzoniense</i>	1.8
Ulaian	- <i>Lithocarpus llanosii</i>	2.6	Bitanghol	- <i>Calophyllum blancoi</i>	1.4
Malugai	- <i>Pometia pinnata</i>	1.3	Pahutan	- <i>Mangifera altissima</i>	1.3
Anang	- <i>Diospyros pyrrocarpa</i>	1.6	Ulaian	- <i>Lithocarpus llanosii</i>	1.2

#### Region 6 & 7

Nato	- <i>Palaquium luzoniense</i>	11.6	Nato	- <i>Palaquium luzoniense</i>	5.3
Ulaian	- <i>Lithocarpus llanosii</i>	4.8	Ulaian	- <i>Lithocarpus llanosii</i>	4.3
Igem	- <i>Podocarpus imbricatus</i>	2.7	Bitanghol	- <i>Calophyllum blancoi</i>	1.8
Bulala	- <i>Nephelium philippinense</i>	2.2	Malugai	- <i>Pometia pinnata</i>	1.5
Pahutan	- <i>Mangifera altissima</i>	2.1	Balobo	- <i>Diplodiscus paniculatus</i>	1.3
Amugis	- <i>Koordersiodendron pinnatum</i>	2.0	Duguan	- <i>Myristica philippense</i>	1.3
Bitanghol	- <i>Calophyllum blancoi</i>	1.6	Balete	- <i>Ficus balete</i>	1.1
Batikuling	- <i>Letsea leytensis</i>	1.4			

#### Region 8

Ulaian	- <i>Lithocarpus llanosii</i>	4.8	Ulaian	- <i>Lithocarpus llanosii</i>	5.8
Duguan	- <i>Myristica philippense</i>	3.7	Duguan	- <i>Myristica philippense</i>	3.0
Nato	- <i>Palaquium luzoniense</i>	3.2	Bitanghol	- <i>Calophyllum blancoi</i>	1.9
Bitanghol	- <i>Calophyllum blancoi</i>	3.2	Bolong-eta	- <i>Diospyros pilosanthera</i>	1.5
Almaciga	- <i>Agathis philippensis</i>	1.8	Antipolo	- <i>Artocarpus blancoi</i>	1.1
			Balobo	- <i>Diplodiscus paniculatus</i>	1.1

#### Region 9

Nato	- <i>Palaquium luzoniense</i>	7.7	Nato	- <i>Palaquium luzoniense</i>	6.2
Igem	- <i>Podocarpus imbricatus</i>	4.5	Ulaian	- <i>Lithocarpus llanosii</i>	4.4
Ulaian	- <i>Lithocarpus llanosii</i>	4.1	Bitanghol	- <i>Calophyllum blancoi</i>	3.1
Bitanghol	- <i>Calophyllum blancoi</i>	4.1	Malugai	- <i>Pometia pinnata</i>	2.1
Kalunti	- <i>Shorea kalunti</i>	2.9	Bayok	- <i>Pterospermum peltatum</i>	1.6
Bolong-eta	- <i>Diospyros pilosanthera</i>	1.8	Duguan	- <i>Myristica philippense</i>	1.6

Region 10 & 11

Nato	-	<i>Palaquium luzoniense</i>	9.7	Ulaian	-	<i>Lithocarpus llanosii</i>	4.5
Ulaian	-	<i>Lithocarpus llanosii</i>	7.3	Nato	-	<i>Palaquium luzoniense</i>	3.7
Almaciga	-	<i>Agathis philippensis</i>	3.6	Bitanghol	-	<i>Calophyllum blancoi</i>	2.5
Bitanghol	-	<i>Calophyllum blancoi</i>	3.1	Malugai	-	<i>Pometia pinnata</i>	1.6
Malugai	-	<i>Pometia pinnata</i>	2.0	Loktob	-	<i>Duabanga moluccana</i>	0.6
Kalunti	-	<i>Shorea kalunti</i>	1.6	Binuang	-	<i>Octomeles sumatrana</i>	1.7
Binuang	-	<i>Octomeles sumatrana</i>	1.5				
Igem	-	<i>Podocarpus imbricatus</i>	1.3				

Region 12

Nato	-	<i>Palaquium luzoniense</i>	15.1	Nato	-	<i>Palaquium luzoniense</i>	15.6
Bitanghol	-	<i>Calophyllum blancoi</i>	4.3	Loktob	-	<i>Duabanga moluccana</i>	6.9
Ulaian	-	<i>Lithocarpus llanosii</i>	4.3	Ulaian	-	<i>Lithocarpus llanosii</i>	5.5
Almaciga	-	<i>Agathis philippinensis</i>	3.8	Bitanghol	-	<i>Calophyllum blancoi</i>	4.0
Binuang	-	<i>Octomeles sumatrana</i>	2.9	Balete	-	<i>Ficus balete</i>	2.5
				Binuang	-	<i>Octomeles sumatrana</i>	2.1
				Malugai	-	<i>Pometia pinnatum</i>	1.8