FPRDI

ITTO

FINAL REPORT

THE DEVELOPMENT OF A STRATEGIC FRAMEWORK FOR MARKETING PHILIPPINE LESSER-USED TROPICAL TIMBER SPECIES

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for the:
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Utilization of Lesser-Used Species as Alternative
Raw Materials for Forest-Based Industries

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EXECUTIVE SUMMARY

Introduction

The forest estate in the Philippines has declined from approximately 52% of the total land area to less than twenty percent over the past fifty years. In addition to the serious environmental and ecological implications that this trend presents, the loss of forest area has severely impacted the wood processing sector in the Philippines. Timber harvests have declined from 11 million m^3 in 1970 to just 865,000 m^3 in 1995. The resulting impact on the forest products industry has been rising lumber prices, raw material supply shortages, and a consolidation of the timber processing industry that has resulted in the loss of over 25,000 jobs since 1990. Over the past five years the Philippines has gone from being an exporter of primary forest products to a net importer. However, two recent developments that have tremendous potential for the forest products industry are: 1) the current focus on the establishment of industrial tree plantations and 2) the recognition that lesser-used tropical timber species have the potential to substitute for increasingly scarce traditional species.

This report presents the results of a survey of the Philippine wood processing industry that was conducted to obtain information related to the marketing of lesser-used tropical timber species. The survey questionnaire was developed in consultation with researchers at the Forest Products Research and Development Institute who were involved in evaluating the physical, mechanical, and processing characteristics of Philippine lesser-used species. A total of 537 questionnaires were mailed out in November, 1996 and a total of 24 usable questionnaires were returned. The final response rate for the survey in the Philippines was 4.6 percent. The results of a second survey carried out in the US are also presented. This report also presents recommendations for the end-use of twenty-three lesser-used species. Finally, the report presents a strategic framework for effectively introducing and marketing lesser-used tropical species and provides a plan for monitoring and evaluating the performance of lesser-used species in the marketplace.

Results of the Survey of the Philippine Forest Products Industry

The size of the firms responding to the survey ranged from a low of five employees to a high of 1,300 employees, with the majority of firms employing between 20 and 200 workers. Approximately half of the respondents were located in Luzon, with the remaining firms were evenly distributed between the Visayas and Mindanao. Just over two-thirds of the raw material inputs used by the responding firms were from traditional domestic species, while approximately twenty percent were imported and almost fifteen percent were derived from lesser-used species. Imported timber represented the majority of the raw material mix for 21 percent of the firms and only one firm utilizes imported raw materials exclusively.

Less than half of the survey respondents export their products. The main export markets were the US (54.2%), Japan (17.1%), and the UK (7.9%). Almost three-quarters of the exports were furniture (74.4%), followed by joinery/millwork (7.9%), and other products (15.2%). None of the respondents exported primary wood products (i.e., lumber, plywood, or veneer). The vast majority of respondents (75%) indicated that they used a combination of distribution channels (including export agents, brokers, and direct sales to customers) when exporting their products.

Impact of tropical hardwood boycotts

The survey results indicate that boycotts in developed countries have had virtually no impact on producers and exporters of wood products in the Philippines. However, respondents recognized that boycotts could pose a substantial risk to their business activities in the future. Factors impacting raw material availability in the Philippines were perceived to pose more of a risk to long-term operations than tropical hardwood boycotts.

Respondents indicated that the most effective strategies for responding to a boycott were: adopting sustainable forest management practices, using plantation grown timber, and using lesser-used tropical timber species. The least effective strategy was to simply ignore the boycott. Respondents perceived that the net impact of boycotts had been to positively influence the strategic development of the industry away from the production of commodity products towards value-added products. Respondents reported that lesser-used species will become a more important component of the raw material mix in the future. This would seem to indicate that, at least from a marketing perspective, the challenge is not so much gaining acceptance of lesser-used species, but rather to provide manufacturers with the necessary technical information and promotional material to encourage and support the increased utilization of lesser-used species.

The utilization and marketing of lesser-used species

Three quarters of the respondents are incorporating lesser-used species into their raw material mix. Of those companies processing lesser-used species, almost three-quarters sell their products in the domestic market while one-third export their products. Manufacturers reported that their domestic customers are substantially more willing to accept products manufactured from lesser-used species than are their foreign customers.

The survey results show that a total of 2,328 m^3 of lesser-used species were processed by respondents in 1995. While thirteen of the twenty three lesser-used species included in the survey had been used by at least one respondent, the primary lesser-used species being utilized were *Binuang* (38.1%), *Nato* (22.4%), *Malugai* (8.8%), and *Balete* (8.6%). The main products produced by respondents from lesser-used species were lumber (53.7%), furniture and furniture components (18.9%), and veneer and plywood (14.4%) The survey data suggests that many of the lesser-used species are utilized in the manufacture of specific products. For example, *Balete* was primarily used for furniture, *Magabuyo* was principally used for parquet flooring, and *Malugai* was used for veneer and plywood. Other species were used in a wide variety of products. For example, while the majority of *Binuang* and *Nato* was used in the production of lumber, substantial volumes were used to produce furniture, mouldings, veneer, and plywood.

When respondents were asked to evaluate the importance of a variety of factors in promoting the market acceptance of lesser-used species, two groups of factors were rated as being very important. The first group consisted of the availability of a reliable long-term resource supply and the availability of technical processing information. The second group included: providing a low initial price and gaining the acceptance of the lesser-used species by an influential manufacturer or trader. While the second group of factors was rated as being less important than the first group, it was still perceived as being very important.

Acquisition of market information

Survey respondents indicated that two strategies were most effective in acquiring market information: working with an industry association and holding direct discussions with customers,. Survey respondents were also asked to rate the importance of different strategies for identifying new customers and market opportunities. The highest rated strategy was attending industry trade shows.

Results of the US Survey of Importers and Wholesalers of Lesser-Used Tropical Species

A similar survey to that conducted in the Philippines was administered in the US to one hundred importers and wholesalers of tropical hardwoods. The high response rate (67%) provides an indication of the interest of US importers and wholesalers in the utilization of lesser-used species. On average, tropical timber species represented 41.3 percent of the respondents lumber sales, 12.1 percent of their plywood sales, and 12.0 percent of their veneer sales in 1996. Survey respondents indicated that they imported 25.3% of their tropical hardwood imports from Africa, 49.2% from South America, and 24.5% from Southeast Asia. The results of the survey indicate that a high percentage (80.6%) of the US respondents are currently importing lesser-used tropical timber species. The survey participants indicated that, on average, their customers are reluctant to accept lesser-used species, although a small percentage of respondents (14.9%) indicated that their customers accepted lesser-used species quite readily, and a similar percentage suggested that their customers were not willing to try lesser-used species at all.

The survey respondents were asked to rate the importance of different strategies in promoting market acceptance of lesser-used tropical timber species in the US. By far, the most important factor was the availability of a reliable long-term supply of the species. This factor was rated as being significantly more important than any other factor. Three other factors, the availability of small trial volumes, the availability of technical information, and a low initial price, were also rated very important. Respondents were then asked to identify the single most important factor in promoting the acceptance of lesser-used tropical species in the US. The results indicate that the single most important factor is a low initial price, followed by a reliable long-term resource supply, and the availability of promotional materials. While the ranking of factors in these two questions is somewhat different, considered together they provide a better understanding of the factors that constitute an effective marketing strategy for promoting lesser-used tropical species: the availability of a reliable long-term supply, a low trial price, the availability of promotional materials, and the availability of technical information.

Recommendations

Based on the information derived from the two surveys, a preliminary marketing strategy was developed to facilitate the introduction and acceptance of Philippine lesser-used tropical timber species. The factors that constitute the basis of the marketing strategy include: 1) determination of the technical characteristics of each lesser-used species, 2) development of an effective promotional strategy, 3) identification of appropriate niche markets for each species, 4) acquisition of market information, 5) development of a marketing strategy based on the appropriate mix of marketing variables, 6) establishment of a reliable product supply prior to the initiation of marketing activities, and 7) providing technology transfer and marketing support to the local industry.

In order to effectively monitor the market acceptance of lesser-used tropical timber species, it is recommended that FPRDI perform an annual survey of the timber industry. The objectives of the annual survey would be to monitor the utilization of lesser-used species (including resource availability in the forest), monitor the development of markets for products manufactured from lesser-used species, and identify problems related to the utilization and/or marketing of lesser-used species at an early stage. The annual survey should be supplemented with in-depth personal interviews with managers of companies producing primary and value-added wood products from lesser-used species.

As mentioned earlier, most of the managers in the Philippine industry indicated that they would be willing to try lesser-used species in their manufacturing operations. The primary reason they are not doing this already is because there is no ready supply of these species available. This has been primarily attributed to government policies that prohibit and restrict the harvesting and transportation of lesser-used species in the Philippines. This report recognizes the need for a policy that explicitly addresses the harvesting and transportation of lesser-used species derived from second-growth forests. Not only would such a policy help to promote the more efficient utilization of lesser-used species, but if properly designed it would support the development of a sustainable forest management policy at the national level.

It is also suggested that the FPRDI marketing and promotion group assemble a Marketing of Lesser-Used Species Advisory Board. This advisory board, composed of managers of primary and value-added forest products companies, FPRDI market analysts, and representatives from DENR and FMB, would discuss issues that directly affect the supply and marketing of lesser-used species. In particular, it would provide a forum where value-added manufacturers could discuss their problems and concerns with primary processors and both types of industry managers could open a constructive dialogue with the government officials responsible for developing policies related to the forest products sector.

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BACKGROUND

The Republic of the Philippines has a total land area of 29,817,000 hectares distributed over 7,107 islands. Classified forest lands in the Philippines cover approximately 16 million hectares representing 53 percent of the total land area, Table 1. Although more than half of the land area is classified as forest land, in reality almost two-thirds of this area is described as brush land and grasslands. As a result, total forest land is just 5.9 million hectares, less than twenty percent of total land area. Dipterocarp forests, from which the majority of commercial timber is derived, totals 3.9 million hectares, just 24.5 percent of total forest land and 12.9 percent of total land area. Virgin old-growth forests are cover 800,000 hectares (five percent of forests) while residual, or second-growth dipterocarp forests, cover an additional three million hectares (19.4 percent of forest lands).

The declining availability of the timber resource is reflected in virtually every aspect of the forest products industry, Table 2. The number of timber license agreements (on which a moratorium for new licenses has been imposed) has declined from a high of 230 in 1977 to just 31 in 1994. Similarly, the area of forest covered by timber license agreements has dropped from 8.3 million hectares to 1.49 million hectares over the same period. As a result, the annual allowable cut during the 1977-1994 period fell from 15.9 million m^3 to 796,000 m^3.

Table 1. Classification of land area in the Philippines.

Classification	Area (hectares)	Percent of total area
Total land area	29,817,000	100
Alien and disposable lands	14,120,000	47.4
Total forest land	15,697,000	52.6
Dipterocarp forest	3,846,658	12.9
Old-growth	804,900	2.7
Residual	3,041,758	10.2
Pine	232,700	0.8
Mangrove	123,400	0.4
Submarginal	503,900	1.7
Mossy	1,080,800	3.6
Brushlands and grasslands	9,909,542	33.2

Source: 1996 Philippine Forestry Statistics.

Table 2. Summary of timber license agreements and annual allowable cut from 1970-1995.

	TLA's (number)	Area of TLA's (hectares)	AAC (m^3)
1970	58	3,368,000	15,491,000
1971	63	3,571,000	16,068,000
1972	64	3,600,000	16,440,000
1973	120	5,252,000	10,373,000
1974	171	7,305,000	13,589,000
1975	171	6,921,000	13,736,000
1976	219	8,005,000	15,592,000
1977	230	8,279,000	15,921,000
1978	207	7,060,000	14,672,000
1979	198	6,776,000	13,741,000
1980	191	6,500,000	13,699,000
1981	184	6,539,000	13,322,000
1982	186	6,709,000	12,879,000
1983	125	5,392,000	9,228,000
1984	142	5,878,000	9,027,000
1985	148	6,093,000	8,903,000
1986	142	5,675,000	8,231,000
1987	137	5,404,000	8,204,000
1988	110	4,421,00	6,913,000
1989	99	4,259,000	6,315,000
1990	75	2,812,000	4,730,000
1991	69	2,625,000	4,601,000
1992	61	2,315,000	1,760,000
1993	41	1,665,000	1,170,000
1994	37	1,575,000	945,000
1995	37	1,498,000	1,062,000

Sources: 1996 Philippine Forestry Statistics; Philippine Lumberman, various.

The declining timber harvest has led to efforts to restock depleted forests areas as well as establish new industrial tree plantations, Table 3. This effort, initially begun by public agencies, has broadened with the introduction of Industrial Forest Management Agreements. By 1994, 1.4 million hectares of depleted forests and brush lands had been reforested while 227 Industrial Forest Management Agreements resulted in the establishment of almost 600,000 hectares of plantations. More importantly, by 1993 the majority of reforestation was being accomplished by the private sector. The primary plantation species in the Philippines are Gmelina arborea and Albizia falcaterra, although a substantial volume of Acacia magnum is grown by local farmers for firewood and poles.

Table 3. Area of plantations established from 1976 to 1995, by source.

	Public Sector (hectares)	Private Sector (hectares)	Total (hectares)
1976	23,228	8,505	31,733
1977	33,365	19,898	53,263
1978	44,686	33,739	78,425
1979	51,858	27,539	79,397
1980	39,881	20,635	60,516
1981	33,296	31,245	64,541
1982	35,201	28,061	63,262
1983	42,239	36,299	78,538
1984	16,088	22,847	38,935
1985	12,684	11,547	24,231
1986	24,426	8,572	32,988
1987	28,843	10,968	39,811
1988	31,226	32,957	64,183
1989	89,452	41,952	131,404
1990	153,949	37,714	191,663
1991	73,602	19,437	93,039
1992	24,304	16,289	40,593
1993	6,347	12,864	19,211
1994	18,032	31,519	49,551
1995	21,841	43,392	65,233

Sources: 1996 Philippine Forestry Statistics, Philippine Lumberman, various.

It should come as no surprise that the production of virtually all primary timber products has been declining since the late 1970's, Table 4. Log production, which provides the raw material input for the vast majority of the forest products industry, plummeted from 11.2 million m^3 in 1975 to just 800,000 m^3 in 1996. As a result, the production of lumber had declined from 2.3 million m^3 in 1975 to 295,000 m^3 in 1996, plywood production declined from 705,000 m^3 in 1973 to 244,000 m^3 in 1995, and the production of veneer dropped from 634,000 m^3 in 1979 to just 23,000 m^3 in 1995.

Confronted with a dwindling resource base, the timber industry has found itself in an environment where raw material costs have increased dramatically as a result of raw material supply shortages. As a result, the primary processing industry has entered a period of consolidation, Table 5. Over the period 1990-1995, the number of sawmills declined by 48 percent, the number of plywood manufacturers declined by 57 percent, and the number of veneer mills declined by 28 percent. As the number of processors has dropped, the number of workers employed by the timber industry has fallen by approximately 25,000.

Table 4. Production of primary forest products in the Philippines, 1970-1995.

	Log ('000 m^3)	Lumber ('000 m^3)	Plywood ('000 m^3)	Veneer ('000 m^3)
1970	11,004	1,341	652	241
1971	10,680	860	642	234
1972	8,416	1,411	732	211
1973	10,446	1,060	705	172
1974	10,190	1,114	274	108
1975	11,156	2,274	422	271
1976	8,646	1,609	416	403
1977	7,873	1,567	489	496
1978	7,169	1,780	490	546
1979	6,596	1,626	503	634
1980	6,368	1,529	553	133
1981	5,420	1,219	463	138
1982	4,589	1,200	434	98
1983	4,468	1,222	469	123
1984	3,872	1,200	504	71
1985	2,982	1,062	350	69
1986	3,434	978	445	50
1987	4,147	1,233	517	75
1988	3,809	1,033	415	85
1989	3,169	950	341	42
1990	2,502	846	414	49
1991	1,922	726	321	54
1992	1,431	647	331	80
1993	1,022	440	273	65
1994	944	407	258	39
1995	865	286	290	19

Sources: 1996 Philippine Forestry Statistics, Philippine Lumberman, various.

Table 5. Trend in the number of primary processing facilities, 1991-1995.

	Sawmills	Plywood Plants	Veneer Plants
1991	150	42	14
1992	124	42	13
1993	95	45	13
1994	93	40	6
1995	78	31	6

US Embassy, Manila, Annual Forest Products Report, 1997.

The forest products industry has traditionally been export-oriented, representing an important source of export revenues for the Philippine government. However, since the late 1970's, the value and volume of the exports of primary forest products has been declining, Table 6. In contrast, imports of primary wood products, primarily logs and lumber, have been increasing rapidly since 1990. By 1995, the value of primary forest products exports was just $35.6 million while imports had skyrocketed to $163.2 million. For an export-oriented industry, this dependency on imported raw materials has resulted in a declining competitiveness at the international level. However, it has also presented an opportunity for the increased utilization of domestic plantation species as well as lesser-used tropical timber species as manufacturers look for sources of lower priced raw materials.

Table 6. Trend in the export and import of primary forest products, 1976-1995.

	Logs		Lumber		Plywood	
	Export ('000 m^3)	Import ('000 m^3)	Export ('000 m^3)	Import ('000 m^3)	Export ('000 m^3)	Import ('000 m^3)
1976	2,332	*	493	*	261	*
1977	2,047	*	455	*	221	*
1978	2,221	*	573	*	362	*
1979	1,248	*	915	*	324	*
1980	758	*	742	*	322	*
1981	706	*	547	*	370	*
1982	752	*	591	*	242	*
1983	786	*	728	*	295	*
1984	846	*	540	*	250	*
1985	454	*	512	*	241	*
1986	296	*	495	*	241	*
1987	6	*	645	*	243	*
1988	16	7	629	3	243	*
1989	6	398	438	13	116	3
1990	4	381	77	4	176	3
1991	0	395	58	10	112	2
1992	0	530	56	43	71	*
1993	1	604	80	463	25	*
1994	4	404	37	298	4	*
1995	0	695	84	379	0	*

Sources: 1996 Philippine Forestry Statistics, Philippine Lumberman, various.

As exports of commodity forest products have been declining, the forest products industry in the Philippines has begun to restructure in an effort to emphasize the production and export of value-added wood products. Exports of wood products such as furniture and handicrafts have increased substantially in recent years, Tables 7 and 8. Although non-wood furniture (i.e., rattan and bamboo furniture) still dominate the furniture export statistics. While exports of wood-based furniture have increased rapidly (Table 7), the production and export of wood and non-wood craft products represent an even larger market, Table 8. The primary export markets for wood-based furniture in 1995 were the US (55.5% market share), Japan (7.3%), Australia (3.9%), the UK (3.1%), and France (2.9%). Similarly, the export markets for craft products in 1995 were the US (59.3%), Japan (12.1%), the UK (6.6%), and Italy (5.0%).

Table 7. Value of forest products-based furniture exports.

	Wood ('000$US)	**Rattan ('000$US)**	**Bamboo ('000$US)**	**Total ('000$US)**
1975	684	2,833	7	3,524
1976	997	5,242	21	6,260
1977	1,593	11,426	50	13,069
1978	1,429	14,763	126	16,318
1979	2,426	30,332	195	32,953
1980	4,092	41,980	319	46,391
1981	3,274	45,922	961	50,157
1982	3,942	42,204	610	46,756
1983	3,930	56,460	743	61,133
1984	5,780	60,233	676	66,689
1985	5,801	59,181	626	65,608
1986	6,578	62,536	858	69,972
1987	10,599	94,911	881	106,391
1988	11,815	135,192	1,417	148,424
1989	13,102	149,918	1,571	164,591
1990	12,185	139,431	1,461	153077
1991	19,489	84,226	1,789	105,504
1992	30,977	115,576	1,836	148,389
1993	43,922	114,210	1,402	159,534
1994	59,463	122,631	1,223	183,317
1995	89,424	119,690	1,510	210,624

Sources: 1996 Philippine Forestry Statistics, Philippine Lumberman, various.

Table 8. Value of craft products made from forest products.

	Basketry ('000$US)	Holiday Décor ('000$US)	Wood Craft ('000$US)	Total ('000$US)
1995	118,855	121,629	63,423	303,908

Source: Mr. Benjamin Kalalo, Philippine Exporters Confederation, personal communication.

Marketing Strategies To Promote Sustainable Forest Management In Tropical Regions

In many tropical countries the predominant management philosophy in the timber industry has emphasized the reduction of manufacturing costs to provide a competitive advantage in the production and export of commodity products. Reliance on this philosophy forces firms to compete solely on the basis of price, thus providing them with minimal or negative profit margins and reducing their bargaining power with importers and manufacturers. A more appropriate competitive strategy for the tropical regions would be the development of differentiated products that could be marketed to niche markets in Japan, Europe and the United States. Adoption of this type of competitive strategy would allow firms to match the needs of the marketplace with the resources available, while providing the opportunity to perform a greater share of value-added manufacturing locally. While this strategy would provide companies and governments in tropical regions with a variety of benefits, it requires that managers in the timber industry accept a shift in management philosophy and become more market-oriented. This section will explore four areas where marketing activities can promote the sustainability of the tropical forest resource as well as increase the competitiveness of firms operating in tropical regions: 1) acquiring greater access to market information, 2) providing a certification of sustainability, 3) developing market opportunities for lesser-used tropical timber species, and 4) developing market opportunities for non-traditional forest products.

Increased access to market information

Currently the timber industry in the tropical region is confronted with a paradigm shift from exploitation to sustainability. This period of change is one of uncertainty where many managers perceive a high level of risk within the business environment As a result, their reluctance to commit to a new method of doing business until they have had the opportunity to assess the long-term implications of this change on their markets and competitiveness is only natural. Acquiring accurate market information is a crucial component of strategy development during any period of transition and uncertainty within an industry. The acquisition of current market information plays a key role in informing managers of the impacts of new developments in the industry and contributes towards reducing the perceived level of risk within the business environment. The acceptance of sustainability as the new competitive paradigm will increase as the perceived level of risk is reduced.

One reason why firms in tropical regions focus on exporting commodities rather than value-added products is their lack of market information. The lack of information regarding the wants and needs of consumers in geographically distant markets makes it difficult for tropical producers to develop and manufacture new products for these markets. Cooper (1979) found that the failure of a new industrial product in the marketplace could be attributed largely to inadequate market analysis prior to the introduction of the new product and the subsequent failure to develop an effective marketing strategy. Smith and Eastin (1990) arrived at a similar conclusion in a case study analysis of rubberwood lumber in southeast Asia, where the initial introduction of this product was adversely affected by an ineffective marketing strategy.

Webster (1969) identified six factors that contribute to the failure of new industrial products, including the failure to focus on a specific market segment, underestimating the marketing effort required, inadequate knowledge of the industrial buying process, and inadequate knowledge of influential industry members. Other research in the area of new industrial product introduction indicates that the primary cause of new product failure is inadequate market knowledge and misdirected marketing strategies (Cooper 1979; Davis 1988; Lawless and Fischer 1990).

Timely access to market information strongly impacts the ability of a manager to respond effectively to changes in the business environment (Robinson and Pierce 1984; Dilts and Prough 1987; Covin and Slevin 1989). This factor is of critical importance for managers operating in developing countries whose primary markets are geographically distant and whose access to current market information is problematic. The ability to obtain and process accurate and timely market information is critical during the development and implementation of business strategies. The lack of market information contributes to an increased level of uncertainty and risk within the business environment (Galbraith 1973; Anderson and Paine 1975).

Aldrich (1979), in his book "Organizations and Environments", asserts that *"variation in information about the environment, as filtered through members perceptions, is the major factor explaining organizational change"*. The process of information gathering provides the firm with a method of reducing uncertainty in the environment (Meyer et. al. 1990). Although information gathering is regarded as an important step in identifying and defining problems within the business environment, managers of export oriented firms tend to be highly unsystematic in their search for information (Keegan 1974). Over time, many firms restrict the focus of their information gathering to those areas of the environment that have been successfully utilized in the past (Cyert and March 1963). Known as the concept of limited search, this technique results in a firm overlooking critical changes in other sectors of the environment. While exploring the relationship between firm size and access to market information, Darling and Postnikoff (1985) found that the strategic options of a small firm may be limited, and their ability to gather and process environmental information restricted, due to limited financial resources.

During my conversations with the managers of forest products firms in Ghana and the Philippines, they indicated their frustration in acquiring accurate market information regarding export markets. This lack of market information was identified as the most important factor impacting their ability to gain an accurate understanding of their export markets and restricted their ability to develop and implement effective marketing strategies. The ability of managers to acquire market information is restricted by three factors: a poorly developed and unreliable communication infrastructure, the reluctance of importers and wholesalers to share market information for fear of being bypassed along the distribution channel, and the relatively high expenses associated with performing international market research at the individual firm level. This finding substantiates the fact that managers in tropical countries are intensely aware of the positive impact of accurate market information on the strategic decision-making process but, given the small size of most firms, acquiring this type of information is extremely difficult and, as a result, the level of uncertainty in the decision-making process is increased.

In addressing the need of managers in tropical countries for accurate and timely market information, it appears there are at least three options available. The first option involves each firm individually developing its ability to acquire market information. This could involve each firm conducting market research in those markets that are important to it. In contrast, each firm could contract the services of a market research organization to acquire this information. However, both of these options are time consuming, expensive and often perceived to be beyond the financial means of smaller firms. A second option relies on an external organization to acquire market information for a group of firms or the entire industry. Finally, individual firms can work cooperatively with importers and wholesalers to develop cooperative relationships that facilitate the flow of information from the marketplace. While this is an efficient and inexpensive method for acquiring market information, it requires that producers work with importers to reassure them that this information will not be used to bypass the importer and sell directly to the customer.

Certification of sustainability

More and more, sustainability is becoming an important criteria applied by consumers in some countries when making a purchase decision about a wood product. The largest home center chains in both the US and the UK (Home Depot and B&Q) are considering requiring their suppliers of timber products demonstrate the sustainability of their products (Burbidge 1993; Knight 1993). In addition, a number of firms in other European countries also require that the timber products they stock be certified as having been sourced from sustainably managed forests. Although a number of studies indicate that consumers are currently influenced more by price/quality factors than by environmental considerations, it is clear that this relationship is changing. For example, a recent survey of furniture customers in the U.K. found that 83% of respondents felt that retailers should not purchase products manufactured from non-sustainably harvested timber (Knight 1993). In addition, educational programs developed by environmental and academic organizations are teaching children about the value of preserving and protecting forests. This will strongly affect their purchasing decisions as the consumers of the future.

Although the entire process of certification is still relatively new, several groups are offering services in this area. The certification process is based on establishing an audit system to ensure products marketed as sustainable can be traced to ensure that they have indeed originated from a sustainably managed forest or concession. The basic structure of the certification process involves three stages. The first stage consists of certification of a forest or concession area as being sustainably managed through a management audit. Forest management audits are requested, and paid for, by individual firms and are almost always performed at the individual forestland or concession level. Audits are performed by a specialized team of independent scientists and typically focus on three elements: timber resource sustainability, forest ecosystem maintenance, and the socio-economic benefits of the forest operation. The second stage of the process involves ensuring that management systems have been established to ensure that products from certified forests can be tracked through the distribution channel from the forest to the retail establishment (chain-of-custody monitoring). Finally, the third stage involves the continuous monitoring of the certified forest area to ensure continued compliance with the guidelines of sustainability.

One of the major factors that has hindered the establishment of an international system of timber certification has been the absence of an internationally recognized accrediting organization to ensure that the different certification programs each conforms to a basic set of criteria to ensure comparability between individual firms and programs. The establishment of the Forest Stewardship Council in 1993 as an independent organization to oversee and regulate the certification process appears to have solved the major problem regarding sustainable certification (de Haes 1993). Currently, a number of firms offer sustainable certification programs, including the Rain Forest Alliance (US), Scientific Certification Systems (US), the Blue Angel (Germany), Societe Generale de Surveillance (SGS), Silviconsult (UK), and the Soil Association (UK). In addition, there is currently an international effort underway to develop a certification program within the ISO framework.

Sustainable certification, for both temperate and tropical timber, appears to be an important trend for the future of the forest products industry. However, given the costs associated with the certification process and sustainable forest management, it most likely will not be appropriate for all firms. Recent reports estimate the cost of certification to range from US$.30 to US$.60 per hectare in developed countries. In addition, the increased logging costs associated with sustainable forestry would add an additional US$40 to US$60 per cubic meter of timber harvested (Ghazali and Simula 1994). Obviously these costs would be higher in lesser developed countries.

Offsetting these higher production costs are the assertions of consumers in developed countries that they would be willing to pay higher prices for sustainably source timber products. A recent study in the U.K. found that sixty-six percent of consumers would be willing to pay up to thirteen percent more for sustainably sourced products. A similar survey in the U.S. reported sixty-eight percent of respondents would be willing to pay up to fifteen percent more for sustainably sourced products (Winterhalter and Cassens 1993; MORI and WWF 1991). It should be noted however, that there is a fundamental difference between actual purchase behavior and professed purchase behavior, particularly with respect to environmentally sensitive topics.

In assessing the end-use markets for forest products, it appears that markets for commodity construction materials will likely be less affected by certification than will markets for value-added products (i.e., doors, windows and furniture) where consumer perceptions are much more important. As a result, not all firms will be affected equally by market pressures for certification. For example, smaller firms and firms located in developing countries will find it harder to justify the additional costs of certification than will larger firms operating in developed countries. It is important that managers of timber firms understand that they have other options regarding certification. For example, a company can opt to source raw materials from certified firms, de-emphasize its trade relationships in environmentally sensitive markets, or simply ignore the situation.

Developing markets for lesser-used tropical species

Despite the fact that tropical timber species number in the thousands, the international timber trade has traditionally focused on a relatively small proportion of timber species. For example, in Ghana the number of commercial timber species exceeds 400. Despite this, timber export statistics from Ghana indicate that only 45 species have been exported over the past twenty years and less than ten species represent over 90% of current Ghanaian timber exports (FPIB 1995).

The focus by the international timber trade on a few species has significant implications for forest management in tropical regions. Tropical timber species rarely occur in pure stands. Rather, they tend to be dispersed throughout the forest in low stocking levels. The focus of timber traders on established timber species, in combination with low stocking levels, compel logging companies to perform harvest operations impacting large areas of forest. This practice has contributed to non-sustainable forest practices through the establishment of an extensive network of logging roads, high levels of harvest damage to remaining trees, depletion of the genetic stock of established timber species, and early re-entry into forest blocks.

One approach for reducing tropical deforestation is to alleviate the pressure on the forest resource by developing markets for lesser-used tropical species (LUS). This strategy implies that tropical forests can be sustainably managed by adopting a more intensive management regime that fully utilizes the timber species located within a specific harvest block, thus reducing pressure on other harvest blocks within a concession. This strategy would thereby help to eliminate the incentives for early re-entry back into a harvest block. Despite the market potential of many LUS, to date there has been little success in developing commercial markets for timber obtained from these species.

While LUS have the potential to substitute for traditional species in some markets, it is important to note that forest products manufacturers are inherently conservative and reluctant to accept substitutes for traditional species. Their reluctance focuses on three concerns: the reliability of supply of the new species, the performance of the new species in the manufacturing process, and concerns regarding the in-service performance of new species. Research in the area of new species introduction indicates that raw material preferences within the international timber trade are slow to change (Smith and Eastin 1990). However, as supplies of traditional species inevitably decline, manufacturers will be forced to consider alternative species.

The challenge in marketing LUS focuses on describing a conceptual model of the introduction process and providing a framework to assist in the development of marketing strategies to successfully introduce LUS as new industrial materials. Exploratory research in Ghana and the Philippines indicates that the decision to evaluate a new timber species is related to the availability of technical information, knowledge of the appropriate end-use applications of a new species, raw material processing attributes, resource availability, and promotional incentives that reduce the risk associated with the trial use of a new species (Eastin 1995). However, the development of an effective marketing strategy requires a thorough understanding of the interrelationships between the factors that influence end-user acceptance of new species in industrial markets.

Developing markets for non-traditional forest products

Another way to more fully utilize the tropical forest resource, and an important component of sustainability, is the development of markets for non-traditional forest products (NTFP's). Non-traditional forest products (e.g., gums, resins, medicinal extractives and nuts/berries) are typically harvested by indigenous groups and successfully developing markets for them provides substantial economic benefits. NTFP's can also provide an opportunity to generate income and employment opportunities on forest lands protected from timber harvest or uneconomic to harvest. Recent research in Brazil has indicated that the economic returns generated from the sale of NTFP's on some sites can exceed the returns obtained from converting forestland into pastures or agricultural land (Peters et. al. 1989).

A number of private, non-profit, organizations have formed the goal of assisting indigenous peoples develop markets for NTFP's as a strategy for reducing deforestation. Given the unique characteristics of these activities, the marketing of NTFP's is confronted with its own set of unique problems. Pendleton (1992) identifies a series of eight factors which must be present in order for a NTFP activity to be economically successful: 1) there must be an economically viable volume of products available in an area to be harvested, 2) there must be markets (current or potential) for the products or their derivatives, 3) NTFP activities must be economically viable in both the short-term and long-term, 4) the economic value of NTFP's must equal or exceed other types of forest utilization, 5) the NTFP's must be accessible for harvest, 6) the NTFP's must be readily available, 7) there should be a long-term supply of these resources, and 8) harvest operations must be sustainable.

The primary challenge associated with marketing NTFP's is identifying and developing markets suited to the unique characteristics of these small-scale industries. In most cases, the volume of products harvested are quite limited and well below the volumes required by even small firms in developed countries. A second imposing challenge relates to the acquisition of market information for these products. Obviously the marketing challenges in this area are imposing, but they can certainly be worth the effort. Several non-profit organizations (e.g., Cultural Survival Enterprises and Conservation International) have undertaken projects with local community groups that have successfully developed profitable market niches for NTFP's in developed countries.

While most forest products firms might not be interested in developing markets for NTFP's, it is important for more firms to note that the opportunity exists to work with indigenous groups to develop markets for these products. Occasionally an opportunity may occur where selective logging and the harvest of NTFP's may enjoy a symbiotic relationship. Timber firms need to be sensitive to the possibility of these collaborations and be willing to take a chance in this area. Not only will it assist them in developing a sustainable forest management plan, but it can provide tremendous opportunities to develop positive public relations in environmentally sensitive developed countries. Managers should not underestimate the public goodwill that can be generated from this type of enterprise.

Activities by a broad range of non-governmental organizations, including environmentalists and academics, have created a heightened sense or urgency regarding the fate of tropical rain forests. In response, consumers have expressed concern regarding the purchase of any products manufactured from tropical timber. Recent surveys in the U.K. and the United States demonstrate this concern on the part of consumers. However, these same surveys hold forth a glimmer of hope. Consumers appear to be willing to pay higher prices for products manufactured from sustainably managed timber.

As a result, there has been tremendous pressure to achieve sustainability within the timber industry by the year 2000. While achieving sustainability may not be appropriate or even necessary for all firms, most will find that it is in their best interests to move in this direction. Achieving sustainability represents an opportunity to increase market share in some niche markets as well as increasing profitability. However, this requires that managers increase their use of marketing in order to become more market-oriented so that they can better identify their most profitable, and appropriate, niche markets.

TERMS OF REFERENCE FOR THE MARKETING CONSULTANT

The terms of reference for the marketing component of the Lesser-Used Tropical Timber Species Project were as follows:

① Identify and recommend appropriate technologies for piloting and promotion of lesser-used tropical timber species,
② Recommend new and traditional products from lesser-used tropical timber species with market potential,
③ Prepare and recommend appropriate marketing strategies for lesser-used tropical timber species, and
④ Prepare an appropriate method or model for the appraisal and evaluation of the effectiveness of market promotion activities for lesser-used tropical timber species in the market.

RESEARCH METHODOLOGY

Exploratory interviews regarding the appropriate end-use applications for the various species included in the lesser-used species project were conducted in the Philippines during the summer of 1996. These exploratory interviews were conducted with a wide variety of experts in research institutes, the Bureau of Forestry, the College of Forest Resources, and managers of wood processing facilities, Appendix A.

Subsequently, two surveys were performed to evaluate the importance of different factors related to the introduction and acceptance of lesser-used species. The first survey consisted of a census of the Philippine wood processing industry based on the membership directories of the Philippine Wood Processing Industry (112 members), the Chamber of Furniture Industries of the Philippines (324 members), and the Cebu Furniture Foundation, Incorporated (120 members). The survey questionnaire was developed in consultation with the researchers at FPRDI involved in the lesser-used species project, Appendix B. The survey was mailed to the participants and each questionnaire was accompanied by a cover letter explaining the purpose of the survey and included a stamped self-addressed return envelope. A total of 537 questionnaires were mailed in November, 1996. A total of 24 usable questionnaires were returned as well as thirteen non-deliverable surveys. The final response rate for the survey in the Philippines was 4.6 percent. A summary of the Philippine survey data is presented in Appendix D.

The second survey was focused on importers and wholesalers of tropical hardwood lumber and veneer in the US. A purposive sample of one hundred companies was developed from the Directory of Hardwood Lumber and Veneer Importers Association. A variety of factors were considered in the development of the sample frame including firm size, the ratio of tropical hardwood products in the total product mix of the firm, and the geographic location of the firm. Given the relatively large size of the sample and its geographic dispersion, a mail survey was deemed to be the most efficient method for collecting data. The survey questionnaire was developed in conjunction with the questionnaire administered in the Philippines to ensure comparability of the data. In addition, the survey was shortened from the four pages used in the Philippines to just two pages by removing extraneous questions, Appendix C. A two dollar bill was included with each questionnaire in an effort to increase the response rate. The survey was mailed to participants in February, 1997 and, following two survey mailings, a total of 68 usable surveys were received representing an effective response rate of sixty-eight percent. A summary of the US survey data is presented in Appendix E.

RESULTS AND DISCUSSION

Results Of The Philippine Survey On Lesser-Used Species

Firm size and location

Firm size was determined based on the number of workers employed by the responding firm. Firm size of the respondents in the Philippines ranged from five employees to 1,300 employees, with the majority of firms employing between 20 and 200 workers. An analysis of the survey data indicates that the respondent profile was fairly evenly distributed in terms of firm size, Table 9. Approximately half of the respondents were located in Luzon, Table 10. The remaining firms were evenly distributed between the Visayas (5 firms) and Mindanao (6 firms). No responses were obtained from firms located in other regions of the Philippines.

Raw material acquisition

Industry statistics indicate that acquiring commodity type domestic raw materials has become more difficult for producers in the Philippines. As a result, the volume of logs, lumber, veneer, and plywood imported by manufacturers has been increasing over the past ten years, and today imports of commodity products exceeds exports by more than nine-to-one. The diminished supply of domestic raw materials provides an opportunity to promote the lesser-used species as substitutes for the less available traditional domestic species. To better understand how the reduced availability of domestic timber has affected raw material use patterns in the Philippines, respondents were asked to provide information regarding their sources of raw material inputs for their manufacturing operations.

The survey data indicate that approximately two-thirds of the raw material inputs used by respondent firms were derived from traditional domestic timber species, Table 11. While the majority of raw material inputs used by the responding firms were from traditional species, almost one-third of the raw material inputs were derived from imported timber, domestic lesser-used species, or a combination of both. Approximately twenty percent of the timber used by responding firms was imported while domestic lesser-used species represented almost fifteen percent of the raw material input reported by respondent firms, Table 12.

Table 9. Profile of survey respondents based on number of workers employed.

Firm Size	*Number of firms*	*Percent of respondents*
Small (1-25 employees)	8	33.3%
Medium (26-100 employees)	8	33.3%
Large (above 100 employees)	6	25.0%
No response	2	8.3%

Table 10. Geographic distribution of survey respondents.

Region	***Number of firms***
Luzon	10
Visayas	5
Mindanao	6
Total	**21**

The majority of respondents (73%) indicated that their firms rely on domestically sourced raw materials for more than half of their raw material inputs, Table 12. The survey results show that seven firms rely exclusively on domestic resources for their manufacturing operations while an additional nine firms utilize domestic raw materials for over half of their raw material requirements. Imported timber represents the majority of the raw material mix for five of the responding firms while one respondent indicated that their firm utilizes imported raw materials exclusively. Interestingly, the results indicate that lesser-used species currently represent 13.9 percent of the raw material mix of responding firms.

Table 11. Summary of raw material inputs derived from imported and domestic sources.

Raw material source	***Ratio of total raw material input***
Imported	18.6%
Domestic	67.5%
Domestic lesser-used species	13.9%

Table 12. Profile of respondents based on sources of raw material inputs.

Raw material source	***Number of firms***
100% domestic material	7
50-99% domestic material	9
1-49% domestic material	5
100% imported material	1
Total	**22**

Table 13. Export markets served by survey respondents.

Export Market	Number of firms	Percentage of Exports
US	8	54.2%
Korea	5	5.3%
Japan	4	17.1%
UK	3	9.3%
Netherlands	1	5.5%
Other	4	8.6%

Exports

Less than half of the survey respondents export their products. The survey results indicate that the main export markets were the US (54.2%), Japan (17.1%), and the UK (7.9%), Table 13. Almost three-quarters (74.4%) of the exports reported were furniture, followed by joinery/millwork (7.9%), and other products (15.2%), Table 15. It is interesting to note that the respondents did not report any exports of primary wood products such as lumber, plywood, or veneer.

Respondents were also asked to provide information on the distribution channels they use when exporting products. In particular, they were asked to identify what percentage of their exports were through an import broker or agent versus exporting direct to the final customer. The vast majority of respondents indicated that they used a combination of distribution channels for exporting their products, Table 14. This is consistent with the survey data showing that most of the respondent firms are exporting products to a wide variety of export markets in different regions of the world. Just one respondent reported exporting exclusively through export agents while two respondents indicated that all of their exports go directly to the final customer.

Table 14 Summary of distribution channels for export products.

Type of distribution channel	Number of firms
100% through a broker/agent	1
50-99% through a broker/agent	7
1-49% through a broker/agent	6
100% direct to the final customer	2
Other type of distribution channel	5

Table 15. Export market and product matrix for survey respondents in 1996 (in cubic meters).

Country	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Other	Totals
Japan	555	1	1	2	2	1		**562** *(17.1%)*
Korea	31	19	1	21	1	1	100	**174** *(5.3%)*
UK	301	1	1	1	2	1		**307** *(9.3%)*
USA	1,516	13	1	55	1	1	200	**1,787** *(54.2%)*
Germany	10							**10** *(0.3%)*
Netherlands				180				**180** *(5.5%)*
United Arab Emirates	10							**10** *(0.3%)*
France							200	**200** *(6.1%)*
Argentina	30							**30** *(0.9%)*
Other	1	31	1	1	1	1		**36** *(1.1%)*
Totals	**2,454** *(74.5%)*	**65** *(2.0%)*	**5** *(0.2%)*	**259** *(7.9%)*	**7** *(0.2%)*	**5** *(0.2%)*	**500** *(15.2%)*	**3,296** *(100%)*

Table 16. Respondent perceptions of how the tropical hardwood boycotts have affected demand for their products.

	Average Impact Rating*
Impact of boycott on demand	1.25

* The impact on demand was measured using a Likert-like scale where 1=No effect and 7=Significant reduction.

Impact of tropical hardwood boycotts

Tropical hardwood boycotts have been initiated in a number of developed countries by environmental groups in an effort to reduce market demand for tropical hardwoods. While these boycotts have been around for over ten years, one-quarter of the survey respondents indicated that they had not heard of the boycotts. Respondents were asked to evaluate the impact that tropical hardwood boycotts have had on the demand for their products. The survey results indicate that respondents felt that boycotts in developed countries have had virtually no impact on the demand for their products, Table 16. While respondents reported that tropical hardwood boycotts currently have had little impact on their export sales, they recognized that these boycotts could pose a substantial risk to their business activities in the future, Table 17. However, the respondents felt that the factors impacting raw material availability in the Philippines posed more of a risk to their long-term operations than did tropical hardwood boycotts.

Respondents were next asked to evaluate the effectiveness of a variety of strategies in responding to a boycott of tropical hardwood products, Table 18. The three most effective strategies were perceived to be: adopting sustainable forest management practices, using plantation grown timber, and using lesser-used tropical timber species. The least effective strategy was perceived to be ignoring the boycott.

Table 17. Perceived risk posed by different factors in the Philippines.

Risk Factor	***Average Risk Rating****
Government policy regarding forests	5.46
Timber resource availability	5.25
Economic environment	5.09
Tropical hardwood boycotts	5.04
Political environment	4.83
Forest concession policy	4.57
Confiscation/expropriation of property	4.43
Sustainable forest management	4.04
Timber certification/labeling programs	3.91
Restriction on repatriation of profits	3.50
Accessibility of foreign exchange	3.44

* Risk was measured using a Likert-like scale where 1=No risk, 4=Medium risk, and 7=High risk.

Table 18. Perceived effectiveness of different strategies in responding to a boycott.

Strategic Response	***Average Effectiveness Rating****
Adopt sustainable forest management	6.33
Use plantation species	6.33
Utilize lesser-used species	6.12
Cooperate with environmental groups	5.50
Shift product mix to value-added products	5.42
Reduce prices	5.33
Certify timber products	5.25
Advertise to consumers	5.12
Focus on domestic markets	4.57
Advertise to industry	4.37
Export to less environmentally sensitive markets	4.04
Export to regional markets	3.29
Ignore the boycott	2.92

* Effectiveness was measured using a Likert-like scale where 1=Not effective, 4=Somewhat effective, and 7=Very effective.

Respondents were asked to estimate the impact of the tropical hardwood boycotts on the forest products industry in the Philippines. Interestingly, the respondents perceived that the net impact of the boycotts had been to encourage and support the strategic development of the industry, Table 19. In particular, the tropical hardwood boycotts have strongly encouraged the development of the value-added wood processing industry and the increased utilization of lesser-used species. Both of these activities have the potential to increase the international competitiveness of the Philippine forest products industry in the future. Of course, it must be noted that other developments, such as diminishing resource supplies and the increasing price of domestic timber, have also contributed to this trend.

Table 19. Impact of boycotts on strategic developments in the forest products industry.

Strategic Impact	***Average Impact Rating****
Development of value-added industry	5.48
Increased use of lesser-known species	5.43
Sustainable forest management	5.30
Increased use of imported forest products	5.27
International competitiveness	5.17
Conversion of TLA's into IFMA's	5.11
Increased use of non-wood forest products	5.09
Participation in industry associations	4.96
Capital investment in processing equipment	4.74
Capital investment in manufacturing facilities	4.50

* *Impact was measured using a Likert scale where 1=Strongly discouraged, 4=No impact, and 7= Strongly encouraged.*

Table 20. Utilization and marketing of lesser-used species.

	Yes	No
Process LUS	18 (75%)	6 (25%)
Market LUS domestically	13 (54%)	11 (46%)
Export products from LUS	6 (25%)	18 (75%)

Respondents also felt that capital investments in plants and processing technology had been encouraged, at least in part, by tropical hardwood boycotts. While this may appear unusual, it should be remembered that these boycotts began at about the same time that many forest products firms were beginning to consider incorporating lesser-used species, domestic plantation species, and imported timber into their raw material mix. Taken together, it appears that the respondents perceive that, while the forest products industry in the Philippines is undergoing a period of dynamic change, the net result of this change will be a more efficient industry focused on the production of value-added wood products that are more competitive in international markets. The results also suggest that lesser-used species will play an important role in the raw material mix of the future. From a marketing perspective, the challenge appears to be not so much one of gaining manufacturers acceptance of lesser-used species, but rather providing them with the necessary technical information and promotional material to support the increased utilization of lesser-used species.

Utilization and marketing of lesser-used tropical species

The results of the survey show that Philippine manufacturers are already using lesser-used species. Three quarters of the respondents are incorporating lesser-used species into their raw material mix, Table 20. Of those companies who reported processing lesser-used species, almost three-quarters (72.2%) are selling those products in the domestic markets while one-third are exporting their products manufactured from lesser-used species. This difference appears to support the manufacturers perceptions that their domestic customers are substantially more willing to accept products manufactured from lesser-used species than are their foreign customers, Table 21.

Table 21. Respondents perceptions of the acceptance of lesser-used species by their customers.

	Average Acceptance Rating*
Acceptance of LUS by domestic customers	4.55
Acceptance of LUS by foreign customers	4.10

Acceptance of LUS was measured using a Likert-like scale where 1=Not at all, 4=Reluctantly, and 7=Very Readily.

To develop a better understanding of how lesser-used species are being utilized in the Philippines, survey respondents were asked to estimate the volume of lesser-used species they process in the manufacture of a variety of products. The survey results show that a total of 2,328 m^3 of lesser-used species were processed by respondents in 1995, Table 22. While thirteen of the twenty three lesser-used species included in the survey had been used by at least one respondent, the primary lesser-used species being utilized were *Binuang* (38.1%), *Nato* (22.4%), *Malugai* (8.8%), and *Balete* (8.6%). The results indicate that these lesser-used species are being used in the production of a wide variety of products. The main products for which they are being utilized were lumber (53.7%), furniture and furniture components (18.9%), and veneer & plywood (14.4%)

An analysis of the survey data suggests that some of the lesser-used species are being utilized in the manufacture of specific products. For example, virtually all of the *Balete* was used to manufacture furniture, all of the *Magabuyo* was used for parquet flooring, and all of the *Malugai* went into veneer and plywood. Other species were used in the manufacture of a wide variety of products. For example, while 71% of the *Binuang* was used in the production of lumber, substantial volumes were used to produce furniture, mouldings, veneer, and plywood. Similarly, while two-thirds of the *Nato* went into lumber production, it appears that most of this lumber was used to produce furniture. However, given the small size of the sample, one must be careful in generalizing on these species/product combinations.

Table 22. Summary of end-uses for each of the lesser-used species included in the project, as reported by respondents (in cubic meters).

Lesser-Used Species	Lumber	Furniture	Furniture Components	Doors	Parquet Flooring	Mouldings	Veneer & Plywood	Totals
Alstonia scholaris *(DITA)*		11 *(2)*	1	1		5		18 *(0.8%)*
Amoora aherniana *(KATO)*								0 *(0.0%)*
Celtis luzonica *(MAGABUYO)*					100			100 *(4.3%)*
Calophyllum blancoi *(BITANGHOL)*			15					15 *(0.6%)*
Diospyros inclusa *(ANANG-GULOD)*								0 *(0.0%)*
Diospyros pyrrhocarpa *(ANANG)*								0 *(0.0%)*
Diplodiscus paniculatus *(BALOBO)*								0 *(0.0%)*
Duabanga moluccana *(LOKTOB)*	150							150 *(6.4%)*
Erythrina subumbrans *(RARANG)*								0 *(0.0%)*
Ficus balete *(BALETE)*	Y	1	200					201 *(8.6%)*
Lithocarpus llanosii *(ULAYAN)*								0 *(0.0%)*
Macaranga tanarius *(BINUNGA)*	Y							0 *(0.0%)*
Myristica phillipinensis *(DUGUAN)*								0 *(0.0%)*
Nephelium mutabile *(KAPULASAN)*					100			100 *(4.3%)*
Octomeles sumatrana *(BINUANG)*	630 *(3)*	36 *(3)*	1	1		100	120	888 *(38.1%)*
Palaquium luzoniense *(NATO)*	350 *(3)*	155 *(4)*	11 *(2)*	6 *(2)*				522 *(22.4%)*
Palaquium philippense *(MALAK-MALAK)*	120							120 *(5.2%)*
Pometia pinnata *(MALUGAI)*							206	206 *(8.8%)*
Sterculia philippenensis *(BANILAD)*								0 *(0.0%)*
Terminalia foetidissima *(TALISAI GUBAT)*			5					5 *(0.2%)*
Trema orientalis *(ANABIONG)*		1	1	1				3 *(0.1%)*
Xanthophyllum excelsum *(BOK-BOK)*								0 *(0.0%)*
Ziziphus talanai *(BALAKAT)*								0 *(0.0%)*
Totals	1,250 *(53.7%)*	204 *(8.8%)*	234 *(10.1%)*	9 *(0.4%)*	200 *(8.6%)*	105 *(4.5%)*	326 *(14.4%)*	2,328 *(100%)*

- Numbers in parentheses indicate the number of firms who reported using a particular lesser-used species. Where there is no number in parentheses this indicates that only one firm reported using the species for the particular end-use application.
- Y indicates that the species was used for this end-use but no volume was reported.

Table 23. Perceived importance of different factors in promoting the acceptance of lesser-used species.

Strategic Factor	***Average Importance Rating****
Availability of long-term supply	6.67
Availability of technical information	6.38
Low initial trial price	5.71
Acceptance by influential trader/manufacturer	5.57
Risk-free trial shipments	5.41
Ability to export small trial volumes	5.30
Money-back guarantees	4.52

* Importance was measured using a Likert-like scale where 1=Not important, 4=Somewhat important, and 7=Very important.

The survey results indicate that forest products manufacturers in the Philippines have some experience in the marketing of lesser-used species, both to their domestic customers as well as their foreign customers. To incorporate their experiences with marketing lesser-used species into this study, respondents were asked to evaluate the importance of a variety of factors in promoting the acceptance of lesser-used species, Table 23. Whereas all of the factors were perceived as being somewhat important in promoting the acceptance of lesser-used species, two groups of factors were rated as being very important. The first group of factors, consisting of the availability of a reliable long-term resource supply and the availability of technical processing information, was rated as being significantly more important than all other factors. The second group of factors, providing a low initial price and acceptance of the lesser-used species by an influential manufacturer or trader, while less important than the first group of factors, was still perceived as being very important.

Acquisition of market information

An important component of an effective marketing strategy for introducing and promoting lesser-used species involves establishing an efficient and accurate flow of information between producers, their customers and end-users. Unfortunately, all too often it appears that importers and wholesalers are reluctant to provide foreign manufacturers with detailed market information or to identify the end-users of their products for fear that the foreign manufacturer will use this information to bypass the importer or wholesaler and sell their products direct to the end-user. Thus, the establishment of an effective flow of information between the market and the manufacturer requires that a high degree of trust be established.

Survey respondents were asked to evaluate the importance of a variety of factors in acquiring market information. The results of the survey data indicate that almost all of the strategies, with the exception of three, were perceived as being effective in acquiring market information, Table 24. However, two strategies, working with an industry association and direct discussions with customers (when possible), were perceived to be the most effective. One strategy, hiring an outside consultant, was

Table 24. Perceived importance of different strategies for acquiring market information.

Strategic Factor	***Average Importance Rating****
Industry associations	6.04
Discussions with customers	6.04
Attend industry trade shows	5.83
Discussions with other manufacturers	5.83
Conduct own market research	5.71
Industry association market intelligence reports	5.71
Attend industry exhibitions	5.58
Department of Trade and Industry	5.48
Industry journals	5.48
Discussions with importers/agents	5.21
Internet (world wide web)	4.64
Hire a consultant to conduct market research	3.83

** Importance was measured using a Likert-like scale where 1=Not important, 4=Somewhat important, and 7=Very Important.*

perceived to be the least effective. The remaining strategies were rated as being somewhat effective. However, two of these strategies, attending trade shows and attending industry exhibitions, warrant further discussion. During discussions with industry managers and association representatives in the Philippines, the importance of these strategies for providing market exposure for products manufactured from lesser-used species was emphasized. It is important to note that while these strategies may not be particularly important for acquiring market information, they are very important opportunities for manufacturers and associations to showcase lesser-used species and provide potential customers with information about these species. This distinction is important and should not be overlooked.

Finally, survey respondents were asked to rate the importance of different strategies for identifying new customers and market opportunities. The highest rated strategy was attending industry trade shows, Table 25. Not only does this strategy allow manufacturers to talk directly with potential new customers and learn about market trends, but it also provides an important opportunity for manufacturers to display their products and manufacturing capabilities. Two other strategies, customer recommendations and direct contact with new customers, were also rated as being very important. The second strategy, direct contact with new customers, provides support for the argument that participation in trade shows is an extremely powerful tool for promoting new products and developing new customers. All of the other strategies were perceived as being only somewhat important by the survey respondents.

Table 25. Perceived importance of different strategies for identifying new customers and market opportunities.

Strategic Factor	*Average Importance Rating**
Industry trade shows	6.09
Customer recommendations	5.95
Direct contact from new customers	5.78
Industry exhibitions	5.30
Information from an industry association	5.26
Information from Department of Trade and Industry	5.04
Information from importers or agents	5.00
Company sales staff	4.86
Information from other manufacturers	4.82

* Importance was measured using a Likert-like scale where 1=Not important, 4=Somewhat important, and 7=Very Important.

Results of the US Survey on Lesser-Used Tropical Species

A similar survey to that conducted in the Philippines was administered in the US to one hundred importers and wholesalers of tropical hardwoods. The high response rate (67%) provides an indication of the interest of US importers and wholesalers in the utilization of lesser-used species. The survey instrument is presented in Appendix C while the summary of the survey data is located in Appendix E.

On average, tropical timber species represented 41.3 percent of the respondents lumber sales, 12.1 percent of their plywood sales, and 12.0 percent of their veneer sales in 1996. Survey respondents indicated that they imported 25.3 percent of their tropical hardwood imports from Africa, 49.2 percent from South America, and 24.5 percent from Southeast Asia. Please note that these figures are averages and that most of the respondents imported products from more than one region.

The results of the survey indicate that a high percentage (80.6%) of the US respondents are currently importing lesser-used tropical timber species. The survey participants indicated that, on average, their customers are reluctant to accept lesser-used species. While a small percentage of respondents (14.9%) indicated that their customers accepted lesser-used species quite readily, a similar percentage suggested that their customers were not willing to try lesser-used species at all.

The survey respondents were asked to indicate how important different strategies were in promoting market acceptance of lesser-used tropical timber species in the US. By far, the most important factor was the availability of a reliable long-term supply of the species. No other factor was rated as highly as this single factor. Three other factors, the availability of small trial volumes, the availability of technical information, and a low trial price, were also rated as being important. All other factors were perceived as being of lesser importance.

Table 26. Perceived importance of different factors in promoting the acceptance of lesser-used species (US respondents).

Strategic Factor	***Average Importance Rating****
Availability of long-term supply	6.46
Availability of small trial volumes	5.48
Availability of technical information	5.36
Low initial trial price	5.18
Availability of promotional materials	4.81
Money-back guarantees	4.72
Acceptance by influential trader/manufacturer	4.48
Certification of sustainability	4.39

* Importance was measured using a Likert-like scale where 1=Not important, 4=Somewhat important, and 7=Very Important.

The respondents were then asked to identify the single most important factor in promoting the acceptance of lesser-used tropical species in the US. The results of this question indicate that the single most important factor was a low initial price (24 responses), followed by a reliable long-term resource supply (15 responses) and the availability of promotional materials (11 responses), Table 27. The results of this question were interesting in that they disagree with the importance ratings presented in Table 26. However, when the two sets of data are taken together, it is possible to develop a better understanding of the factors that constitute an effective marketing strategy for promoting lesser-used tropical species: the availability of a reliable long-term supply, a low trial price, the availability of promotional materials, and the availability of technical information.

Table 27. Summary of factors identified as being the single most important in promoting lesser-used species.

Strategic Factor	**Number of Responses**
Availability of a reliable long-term supply	28
Low trial price	24
Availability of promotional materials	11
Availability of technical information	8
Color/appearance of the species	7
Consistency of the wood grain	7
Processing characteristics of the species	5
Substitutes for an established species	4
Availability of small trial volumes	4
Acceptance of the species by an influential company	2

End-Use Applications for Lesser-Used Species in the Philippines
In identifying appropriate end-uses for the lesser-used species included in this study, a variety of characteristics were taken into account. These characteristics included the visual/aesthetic characteristics (color and texture of the wood), physical properties (relative density, volumetric shrinkage, drying, preservative treatability, and durability), mechanical properties (strength), and processing characteristics (sawing, machining, and finishing). The information used to determine end-uses was derived from earlier components of the lesser-used species project performed at FPRDI. A summary of the recommended end-use applications for the twenty-three lesser-used species included in the marketing study is presented in Table 28.

Table 28. Summary of recommended end-uses for some Philippine lesser-used species.

Lesser-Used Species	Recommended End-Use Applications
Alstonia scholaris *(DITA)*	Mouldings, carvings, plywood cores, rotary veneer, household goods, boxes, crates, matchwood, interior sidings, turnings, wooden clogs, fishnet floats.
Amoora aherniana *(KATO)*	General construction, furniture, cabinets, flooring, outdoor furniture, joinery, dock piers, rotary veneer, mine timbers, pallets, truck flooring and bodies.
Celtis luzonica *(MAGABUYO)*	Joinery, musical instruments, bowling pins, boxes, crates, pulpwood, poles and pilings.
Calophyllum blancoi *(BITANGHOL)*	Furniture, cabinets, flooring, bridges, boat building, structural members, outdoor furniture, pulpwood, exterior siding, tool handle, truck bodies, poles and pilings.
Diospyros inclusa *(ANANG-GULOD)*	Joinery, musical instruments, golf club heads, scaling sticks, rulers, bowling balls, pallets.
Diospyros pyrrhocarpa *(ANANG)*	Furniture, cabinets, outdoor furniture, golf club heads, bowling balls, scaling sticks, rulers, pallets.
Diplodiscus paniculatus *(BALOBO)*	General construction, furniture, cabinets, outdoor furniture, tool handles, pallets, venetian blinds, spindles, shuttles, bowling pins, toothpicks, boxes and crates.
Duabanga moluccana *(LOKTOB)*	Light construction, carvings, rotary veneer, dug-out canoes, fishnet floats.
Erythrina subumbrans *(RARANG)*	Rotary veneer, carvings, chopsticks, matches, toothpicks, popsicle sticks, fishnet floats, pulpwood, boxes and crates.
Ficus balete *(BALETE)*	Doors, carvings, moulding, joinery, wooden clogs, fishnet floats.
Lithocarpus llanosii *(ULAYAN)*	Light construction, furniture, cabinets, sliced veneer, pallets.
Macaranga tanarius *(BINUNGA)*	Rotary veneer, plywood, carvings, fishnet floats, matchboxes, dugout canoes, wooden clogs.
Myristica phillipinensis *(DUGUAN)*	Temporary construction, mouldings, interior joinery, flooring, rotary veneer, boxes and crates.
Nephelium mutabile *(BULALA)*	General construction, structural members, furniture, cabinets, outdoor furniture, tool handles, flooring, boat framing, boxes and crates.
Octomeles sumatrana *(BINUANG)*	Rotary veneer, plywood, carvings, dugout canoes, fishnet floats, match boxes, wooden clogs, pulpwood.
Palaquium luzoniense *(NATO)*	Furniture, cabinets, mouldings, turnery, flooring, sliced veneer, louver doors, guitar necks, balusters, pallets, interior and exterior siding.
Palaquium philippense *(MALAK-MALAK)*	Furniture, cabinets, general construction, joinery, rotary veneer, boxes and crates.
Pometia pinnata *(MALUGAI)*	Furniture, cabinets, general construction, joinery, flooring, tool handles, outdoor furniture, bentwood articles, truck bodies, baseball bats, golf club heads, pallets.
Sterculia philippenensis *(BANILAD)*	General construction, house sidings, partitions, carvings.
Terminalia foetidissima *(TALISAI GUBAT)*	Furniture, cabinets, joinery, rotary veneer, musical instruments, pallets, poles and piles.
Trema orientalis *(ANABIONG)*	Carvings, particleboard, pulpwood, fishnet floats, wooden clogs, gunpowder charcoal, boxes and crates.
Xanthophyllum excelsum *(BOK-BOK)*	Temporary construction, interior joinery, paving blocks, railroad ties, picker sticks, pallets, poles and piles.
Ziziphus talanai *(BALAKAT)*	Furniture, cabinets, general construction, plywood, bowling pines, baseball bats, chopsticks, toothpicks, pulpwood, pallets.

FINAL RECOMMENDATIONS

Based on the information obtained in the marketing surveys, a preliminary marketing strategy was developed to facilitate the introduction and acceptance of lesser-used tropical timber species from the Philippines, Table 29. The factors that constitute the basis of the marketing strategy include: 1) determination of the technical characteristics of each species, 2) development of an effective promotional strategy, 3) identification of appropriate niche markets for each lesser-used species, 4) acquisition of market information, 5) development of a marketing strategy based on the appropriate mix of marketing variables, 6) development of a reliable product supply prior to the initiation of marketing activities, and 7) provision of technology transfer and marketing support.

Determination of the technical characteristics of each species. It is crucial that the appropriate technical and processing information be developed to ensure the successful introduction of each lesser-used species. The information that needs to be available to local processors includes the physical and mechanical properties of the wood. But the development of technical information needs to extend beyond deriving the basic wood properties. More importantly, information about the basic wood properties needs to provide the basis for developing kiln drying schedules, preservative treatment processes, and providing recommendations on the processing characteristics of each species. For example, a number of furniture manufacturers reported that they are experiencing difficulty in kiln-drying *Gmelina* lumber. As a result, they are forced to evaluate the moisture content of each piece of lumber at various intervals during the drying process to identify and remove those pieces that have reached the target moisture content of ten percent. This is obviously and inefficient and time consuming process.

The technical information should also provide the basis for making recommendations about the appropriate end-use applications for each lesser-used species. Similarly, the technical information should provide the basis for identifying higher priced traditional species for which each lesser-used species can be used as a substitute. The technical information should be summarized in a series of technical publications that can be provided to manufacturers interested in processing lesser-used species.

Development of an effective promotional strategy. While the technical information developed for each lesser-used species should be a component of the promotional material, the basic function of the promotional material should be to encourage processors to try these species. The promotional material should include attractive photographs of the lesser-used species and the products manufactured from them. They could also include wood specimens of each lesser-used species. The promotional material should also include general information on each lesser-used species including the volume of the available resource, basic wood properties, a summary of the technical information, and a listing of the appropriate end-use applications. Where appropriate, the promotional material should emphasize the ability of the lesser-used species to substitute for traditional species that may be higher priced or in short supply. Finally, the promotional strategy should identify the appropriate outlets and forums for making this information available to manufacturers and exporters and emphasize the role of FPRDI in promoting the transfer of appropriate processing technologies.

Identification of appropriate niche markets for each species. Each lesser-used species possesses a unique set of wood properties which, to a large extent, define the range of products that can be manufactured. In addition, within the wood processing industry is a segment of manufacturers who are innovative and therefore would more willing to try a lesser-used species. In order to maximize the chances for successfully introducing lesser-used species into the marketplace, it is important that each lesser-used species be promoted, at least initially, to those manufacturers who would be most likely to try the species. A similar situation exists within the end-use market and accurate market information can provide the basis for identifying these innovative importers and end-users.

Acquisition of market information. Not only is the acquisition of market information important for providing support for the identification of appropriate niche markets for each species, but it is equally important for identifying those product/market combinations where a specific lesser-used species would have the greatest chance of gaining market acceptance. This is true for both the domestic market and export markets. The process employed for acquiring market information should include both formal and informal channels, but should be institutionalized so that it can be used over the long-term. Once obtained this market information can provide the basis for developing effective marketing strategies focused on those market niches where there is the best chance of gaining the acceptance of lesser-used species.

Development of a marketing strategy based on the appropriate mix of marketing variables. Having developed the information described in the previous steps, it is time to synthesize this information into a marketing strategy that will maximize the chances of gaining the acceptance of the lesser-used species in the marketplace. This includes identifying the appropriate product mix and targeting these products to those customers who are most likely to try a lesser-used species. It means establishing a pricing policy that will encourage end-users to try lesser-used species in preference to the more established species. It means identifying distributors who have experience selling lesser-used species or who have demonstrated a willingness to invest the required time and effort in promoting these species and their products to their customers. It also means effectively integrating the promotional strategy into the marketing strategy. For example, this may include exhibiting products manufactured from lesser-used species at international exhibitions and trade shows. The net result of this process should be the development of a marketing strategy that effectively promotes lesser-used species to potential end-users.

Development of a reliable product supply prior to the initiation of marketing activities. Nothing is more frustrating to an end-user than investing a substantial amount of time, energy, and capital in evaluating a lesser-used species only to find that, at the end of the process, the product is not available. It is critical to the successful introduction of lesser-used species that no marketing programs be initiated until a reliable supply of product is available for customers to purchase. The premature development of demand for a lesser-used species prior to the availability of supply can undermine all of the previous efforts that have gone into developing a marketing strategy for introducing the lesser-used species.

Provide technology transfer and marketing support to the local industry. Having invested a tremendous amount of resources in developing the information required to effectively market lesser-used species, FPRDI should be prepared to provide technical assistance to local processors who are interested in incorporating these species into their raw material mix. In particular, FPRDI should have a program in place to provide technical assistance in transferring prototype scale processing technologies to industrial scale manufacturing processes. However, given the structure of the wood processing industry in the Philippines, it is equally important that they be able to provide technical assistance to smaller processing companies. FPRDI should also provide assistance to local firms in the marketing of lesser-used species by making available the technical information required to develop effective promotional materials.

Table 29. Strategic marketing framework for introducing and promoting lesser-used tropical timber species from the Philippines.

Marketing Factors	***Strategic Considerations***
1. Determine the technical characteristics of each lesser used species	❖ Describe the physical and mechanical properties ❖ Describe the processing and finishing properties ❖ Identify appropriate end-use applications ❖ Identify established species for which the lesser-used species can be substituted
2. Develop a promotional strategy	❖ Document the resource availability of each species ❖ Produce an LUS brochure incorporating all species ❖ Produce individual pamphlets for each new species ❖ Incorporate the technical information into brochures and pamphlets ❖ Distribute promotional material at trade shows and industry exhibitions ❖ Display products at specifically targeted trade shows and industry exhibitions
3. Identify and target appropriate niche markets for each lesser-used species	❖ Focus marketing efforts on appropriate market niches by considering appropriate end-use applications and the ability of LUS to substitute for traditional species ❖ Identify appropriate distribution channels by looking for appropriate importers and wholesalers who specialize in tropical hardwoods ❖ Be willing to provide customers and end-users with support and information on the use of LUS
4. Develop a strategy to acquire reliable market information	❖ Establish an information linkage throughout the distribution channel ❖ Develop the ability to use market information to monitor developments in the business environment
5. Develop a marketing strategy based on the appropriate mix of marketing factors	❖ Low prices encourage trial use and promote a more rapid penetration of the market ❖ Effective promotional and technical materials encourage trial use ❖ Assurance of a long-term supply encourages trial use ❖ Provision of small volumes encourages trial use
6. Develop a reliable product supply	❖ Don't begin promoting a lesser-used species until an adequate supply of the product is available to the customer.
7. Provide technology transfer and marketing support	❖ Provide a program to transfer processing technologies from FPRDI to the local industry ❖ Provide a program to provide marketing support (technical information and promotional material) to the local industry

MONITORING AND EVALUATION

In order to effectively monitor the market acceptance of lesser-used tropical timber species, it is recommended that FPRDI perform an annual survey of the timber industry (this annual survey would be in addition to statistics gathered by FMB as described below). The objectives of the annual survey would be to monitor the utilization of lesser-used species, monitor market developments for products manufactured from lesser-used species and identify problems related to the utilization or marketing of lesser-used species at an early stage. The annual survey should be supplemented with in-depth personal interviews of managers of companies that are performing primary processing operations (lumber, veneer and plywood production) with lesser-used species as well as with the managers of value-added companies who represent the end-users of these species.

The annual survey should be kept short to encourage good response but designed so that the maximum amount of information can be derived from the questions. The annual survey should also be designed in such a way so that the results obtained from later surveys will be comparable with earlier survey results. The annual survey would allow researchers at FPRDI to identify problems as they develop, note trends in market acceptance of lesser-used species and market preferences, identify ways to make product promotion and technical support materials more effective, identify new species to be investigated, monitor market/product shares over time, and modify the marketing strategy in response to changes in the domestic and/or international markets.

As noted earlier, the response rate obtained in this survey on the marketing of lesser-used species was quite low. This may present a problem for future survey work if low response rates are characteristic of the forest products industry in the Philippines. As a result, FPRDI market researchers should supplement the surveys with personal interviews with managers of companies involved in the processing and sale of lesser-used species as well as with end-users. These in depth interviews would provide FPRDI market analysts with useful information related to the marketing activities associated with lesser-used species and identify potential problems. This strategy would also provide useful information to supplement the quantitative information derived from the industry survey.

It would also be helpful for the FPRDI marketing and promotion group to put together a Marketing of Lesser-Used Species Advisory Board. This board might be composed of managers of primary and value-added forest products companies, FPRDI market analysts, and representatives from DENR and FMB. This advisory board could meet to discuss issues that directly affect the supply and marketing of lesser-used species. In particular, it would provide a forum where value-added manufacturers could discuss their problems and concerns with primary processors and both types of industry managers could open a constructive dialogue with the government officials responsible for developing policies related to the forest products sector.

It is also important that FPRDI work with DENR and FMB to develop a methodology for acquiring statistics on the harvest, utilization, and marketing of lesser-used species. This data should be collected on a species basis to facilitate monitoring of the harvest and utilization of specific lesser-used species. This information could be collected in concert with the information used to develop the Philippine Forestry Statistics series published annually by the Forest Management Bureau. The information collected should indicate the volume of each lesser-used species harvested and the volume of primary products (e.g., lumber, veneer, and plywood) manufactured from each lesser-used species. It should also provide information on the types of value-added products manufactured from each lesser-used species and the markets where these products are being sold (export vs. domestic). The purpose of acquiring this data is to provide the basis for monitoring the utilization of lesser-used species within the Philippine forest products industry.

As mentioned earlier, most of the managers in the Philippine industry indicated that they would be willing to try lesser-used species in their manufacturing operations. The primary reason they are not doing this already is because there is not a reliable supply of these species available. This has been primarily attributed to government policies that prohibit and restrict the harvesting and transportation of lesser-used species in the Philippines. It seems that there needs to be a policy developed that explicitly addresses the harvesting and transportation of lesser-used species derived from second-growth forests. Not only would such a policy help to promote the more efficient utilization of lesser-used species, but if properly designed it would support the development of a sustainable forest management policy at the national level. It would also provide a mechanism to address the raw material shortages currently confronting the domestic value-added wood products industry.

The government should also consider supporting a research program to investigate the silvicultural characteristics of the lesser-used species in the Philippines. To a large extent, much of the area being established in the industrial plantations are exotic species such as Gmelina arborea and Albizia falcaterra. In addition, it would be very useful to know which of the Philippine lesser-used species, if any, have the necessary silvicultural characteristics to be used in plantation forestry. This research could be performed by ERDB in conjunction with the College of Forestry at UP Los Banos and FPRDI. The identification of indigenous species that meet the silvicultural and economic criteria for plantation forestry could provide the basis for the further development of value-added industry sectors such as furniture. Proposals for this type of future research could be submitted to international funding agencies such as the International Tropical Timber Organization.

BIBLIOGRAPHY

Aldrich, H.E., 1979. Organizations and Environments. Prentice-Hall Inc., New Jersey. pp:384.

Anderson, C.R. and F.T. Paine, 1975. Managerial Perceptions and Strategic Behavior. Academy of Management Journal, V(18)N(4). pp:811-823.

Burbidge, R., 1993. The Pressures on the Timber Sector in Great Britain. in: Proceedings of a Seminar for Promoting a Trade in Sustainably Produced Timber. March 18-19, 1993. Brussels. pp:93.

Covin, J.G. and D.P. Slevin, 1989. Strategic Management of Small Firms in Hostile and Benign Environments. Strategic Management Journal V(10). pp:75-87.

Cyert and March, 1963. A Behavioral Theory of the Firm. Prentice-Hall. New York, NY.

Darling, J.R. and J.F. Postnikoff, 1985. Strategic Export Information for Small Business. Journal of Small Business Management. pp:28-37.

de Haes, C., 1993. WWF's Perspectives on the International Timber Trade and the Need for Credible Timber Certification. in: Proceedings of a Seminar for Promoting a Trade in Sustainably Produced Timber. March 18-19, 1993. Brussels. pp:93.

Dilts, J.C. and G.E. Prough, 1989. Strategic Options for Environmental Management: A Comparative Study of Small vs. Large Enterprises. Journal of Small Business Management. pp:31-38.

Eastin, I.L., 1995. A Market-Oriented Framework for Introducing Lesser-Used Tropical Species. in: Proceedings of the XX IUFRO Conference, Helsinki, Finland. *in press*.

Forest Products Inspection Bureau, 1995. 1994 Forest Products Export Report. Takoradi.

Galbraith, J.R., 1973. Designing Complex Organizations. Addison Wesley, Massachusetts.

Ghazali, B.H. and M. Simula, 1994. Certification: Who Will Pay the Price? ITTO Tropical Forest Update V(4) N(5). pp:3-5.

Keegan, W.J., 1974. Multinational Scanning: A Study of the Information Sources Utilized by Headquarters Executives in Multinational Companies. Administrative Science Quarterly V(19)N(3). pp:411-421.

Knight, A., 1993. Exceeding Customers Demands and Expectations in a More Concerned and Educated Market Place. in: Proceedings of a Seminar for Promoting a Trade in Sustainably Produced Timber. March 18-19, 1993. Brussels. pp:93.

Meyer, A.D., G.R. Brooks and J.B. Goes, 1990. Environmental Jolts and Industry Revolutions: Organizational Responses to Discontinuous Change. Strategic Management Journal V(11). pp:93-110.

MORI and WWF, 1991. Survey of Public Attitudes Towards Tropical Rainforests and the Environment.

Pendleton, L.H., 1992. Trouble in Paradise: Practical Obstacles to Nontimber Forestry in Latin America. in: Sustainable Harvest and Marketing of Rain Forest Products. Conservation International. pp: 323

Peters, C.M., A.H. Gentry, and R.O. Mendelsohn, 1989. Valuation of an Amazon Rainforest. Nature V(339). pp:655-656.

Robinson, R.B. and J.A. Pierce, 1984. Research Thrusts in Small Firm Strategic Planning. Academy of Management Review V(9)N(1). pp: 128-137.

Smith, P.M. and I.L. Eastin, 1990. Rubberwood as a Substitute "Tropical Whitewood" for Ramin in Asia. Taiwan Forest Products Industries Journal, V(9)N(2), pp: 71-85.

Webster, F.E., 1993. Defining the New Marketing Concept. Marketing Management (V)2, (N)4. pp: 23-31.
Winterhalter, D. and D. Cassens, 1993. United States Hardwood Forests: Consumer Perceptions and Willingness to Pay. Unpublished doctoral dissertation. Purdue University.

Appendices

Appendix A

List of Participants in the Exploratory Interviews

List of Participants in the Exploratory Interviews

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Las Palmas Furniture
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Armin D. Tinio
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AKKA Wood, Inc.
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Carlos B. Carpio
Deputy Administrator
Philippine Coconut Authority
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Appendix B

Survey Questionnaire Used in the Philippines

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   _____ *Yes* _____ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						*Very Effective*
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			*No Impact*			*Strongly Encouraged*
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? _____ *Yes* _____ *No*

8. Does your firm currently market LUS in the Philippines? _____ *Yes* _____ *No*

9. Does your firm currently export lesser-used timber species? _____ *Yes* _____ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

____

____

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important 1	2	3	4	5	6	Very Important 7
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

____

____

15. What percentage of your exports go: through a broker/agent? ________%
direct to the final customer ________%

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important 1	2	3	4	5	6	Very Important 7
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ____________%
domestically sourced ____________%
domestic LUS ____________%

18. How many people are employed by your firm? ____________

19. Where is your principal manufacturing operation located? ____________________

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	*Lumber*	*Furniture*	*Furniture Components*	*Doors*	*Joinery/ Millwork*	*Parquet Flooring*	*Mouldings*	*Veneer/ Plywood*	*Other:* ___
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	*Lumber*	*Furniture*	*Furniture Components*	*Doors*	*Joinery/ Millwork*	*Parquet Flooring*	*Mouldings*	*Veneer/ Plywood*	*Other:* ___
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Appendix C

Survey Questionnaire Used in the US

US SURVEY ON THE INTRODUCTION AND MARKETING OF LESSER-USED TROPICAL SPECIES

1. Are you aware of the efforts by environmental groups to boycott tropical hardwood products?

   _____ Yes   _____ No

2. To what extent have these boycott activities affected the demand for your tropical timber products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. Does your firm currently import any lesser-used tropical timber species? _____ Yes _____ No

4. How readily do you think your customers would accept a lesser-used tropical timber species?

Not at all			*Reluctantly*			*Very Readily*
1	2	3	4	5	6	7

5. In your opinion, how important would the following factors be in promoting the market acceptance of a lesser-used tropical timber species?

	Not Important						*Very Important*
Availability of technical information	1	2	3	4	5	6	7
Availability of promotional materials	1	2	3	4	5	6	7
Low trial price	1	2	3	4	5	6	7
Reliability of supply	1	2	3	4	5	6	7
Money-back guarantee for trial shipment	1	2	3	4	5	6	7
Acceptance of the species by an influential company	1	2	3	4	5	6	7
Availability of small trial volumes	1	2	3	4	5	6	7
Product certification of sustainability	1	2	3	4	5	6	7
Other: ____________________	1	2	3	4	5	6	7
Other: ____________________	1	2	3	4	5	6	7

6. What factor do you feel would be most important in encouraging importers to stock a lesser-used tropical timber species?

7. In your opinion, how important would the availability of a range of products be in encouraging you to stock a lesser-used species (e.g., solid lumber, mouldings, and panel products all produced from the new species)?

Not Important						*Very Important*
1	2	3	4	5	6	7

8. Please indicate where you would go to get information about lesser-used tropical timber species.

a. ____

b. ____

(Please turn over)

9. In your opinion, how important is the utilization of lesser-used species to the sustainable forest management of tropical forests?

Not Important						*Very Important*
1	2	3	4	5	6	7

10. Approximately what volume of each of the following products did your company sell in 1996?

Lumber: ____________ board feet Veneer: ____________ square feet
Plywood ____________ square feet

11. Approximately what percentage of your total sales in 1996 were tropical hardwoods?

Lumber: ____________ % Veneer: ____________ %
Plywood ____________ %

12. Approximately what percentage of your tropical hardwood imports in 1996 originated from the following regions. *Total should equal 100 percent.*

Africa: ________ %
South/Central America: ________ %
Southeast Asia: ________ %
Other: (Please specify)
________________ ________%
100%

13. How many people were employed by your firm in 1996? ______________

14. Please indicate your company's approximate sales in 1996?

_____ $0 - $1,000,000
_____ $1,000,001 - $5,000,000
_____ $5,000,001 - $10,000,000
_____ $10,000,001 - $25,000,000
_____ $25,000,001 - $50,000,000
_____ more than $50,000,000

****

Thank you very much for your time and effort in filling out this questionnaire. Please return it to us in the stamped/addressed envelope provided. We appreciate your participation in this study and if you would like to receive a summary of the project results, please check this box. **?**

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Appendix D

Summary of Survey Results Obtained in the Philippines

Summary of the Philippine Survey on Lesser-Used Species Utilization

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

	Frequency	Percent
Aware	18	75.0
Not aware	6	25.0

2. How has the tropical hardwood boycott affected demand for your products?

No Effect 1	2	3	4	5	6	*Significant Reduction* 7

	Frequency	Percent
1	3	12.5
2	2	8.3
3	2	8.3
4	5	20.8
5	5	20.8
6	3	12.5
7	4	16.7

	Sample Size	Minimum	Maximum	Mean	Std. Deviation
PBOYAWAR	24	1	2	1.25	.44

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

	Frequency	Percent
2	1	4.2
4	1	4.2
5	2	8.3
6	5	20.8
7	15	62.5

	N	Minimum	Maximum	Mean	Std. Deviation
PUTILLUS	24	2	7	6.29	1.23

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Sample Size	*Effectiveness (Mean Rating)*	*Standard Deviation*
Advertising campaign aimed at importers/industry	24	4.37	2.01
Advertising campaign aimed at consumers	24	5.12	1.48
Reduce prices to stimulate demand	24	5.33	1.83
Export to less environmentally sensitive markets	24	4.04	1.73
Shift export focus to regional Asian markets	24	3.29	1.83
Shift focus to domestic markets	23	4.57	2.02
Shift product mix to higher value products	24	5.42	1.44
Increase the number of LUS utilized	24	6.12	1.08
Implement sustainable forest management	24	6.33	1.34
Cooperate with environmental groups	24	5.50	1.72
Develop a timber certification program	24	5.25	1.85
Use plantation species	24	6.33	1.40
Ignore the boycott	24	2.92	2.28

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Sample Size	*Impact (Mean Rating)*	*Standard Deviation*
Participation in industry associations	24	4.96	1.81
Capital investments in processing equipment	23	4.74	1.89
Capital investments in new manufacturing facilities	22	4.50	1.87
Development of value-added industry	23	5.48	1.65
Sustainable forest management	23	5.30	1.92
International competitiveness	23	5.17	2.08
Increased utilization of lesser-known timber species	23	5.43	1.62
Increased utilization of imported timber	22	5.27	1.55
Increased utilization of non-wood forest products	23	5.09	1.53
Conversion of TLA's into IFMA's	18	5.11	1.81

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	Sample Size	*Risk (Mean Rating)*	*Standard Deviation*
Political environment	23	4.83	1.34
Confiscation/expropriation of property	23	4.43	2.31
Economic environment	22	5.09	1.44
Tropical hardwood boycotts	24	5.04	1.76
Accessibility of foreign exchange	18	3.44	2.09
Restrictions on repatriation of profits	18	3.50	2.36
Government policy regarding forests	24	5.46	1.79
Timber resource availability	24	5.25	1.82
Sustainable forest management	23	4.04	2.14
Timber certification/labeling programs	23	3.91	1.62
Forest concession policy	23	4.57	1.80

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species?

	Frequency	Percent
Yes	18	75.0
No	6	25.0

8. Does your firm currently market LUS in the Philippines?

	Frequency	Percent
Yes	13	54.2
No	11	45.8

9. Does your firm currently export lesser-used timber species?

	Frequency	Percent
Yes	6	25.0
No	18	75.0

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			*Reluctantly*			*Very Readily*
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

PACCLUSF

		Frequency	Percent
	1	4	16.7
	2	2	8.3
	3	1	4.2
	4	4	16.7
	5	4	16.7
	6	3	12.5
	7	3	12.5
Missing	9	3	12.5

	N	Minimum	Maximum	Mean	Std. Deviation
PACCLUSF	21	1	7	4.10	2.10

PACCLUSD

		Frequency	Percent
	1	1	4.2
	3	3	12.5
	4	6	25.0
	5	5	20.8
	6	3	12.5
	7	2	8.3
Missing	9	4	16.7

	N	Minimum	Maximum	Mean	Std. Deviation
PACCLUSD	20	1	7	4.55	1.47

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Sample Size	*Importance (Mean Rating)*	*Standard Deviation*
Availability of technical species information	24	6.38	1.21
Availability of long-term supply	24	6.67	0.64
Low initial trial price	24	5.71	1.78
Risk-free trial shipments	22	5.41	2.11
Money-back guarantees	23	4.52	2.52
Acceptance by influential trader/manufacturer	23	5.57	1.70
Ability to export small trial volumes	23	5.30	2.03

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Sample Size	*Importance (Mean Rating)*	*Standard Deviation*
Department of Trade and Industry	23	5.48	1.83
Industry associations	24	6.04	1.12
Conduct our own market research	24	5.71	1.16
Hire an outside firm to conduct market research	24	3.83	2.10
Attendance at industry trade shows	24	5.83	1.37
Attendance at industry conferences	24	5.58	1.38
Discussions with customers	24	6.04	1.43
Discussions with other manufacturers	24	5.83	1.34
Discussions with importers/agents	24	5.21	1.47
Industry association market intelligence reports	24	5.71	1.23
Industry journals	23	5.48	1.59
Internet (World Wide Web) connection	22	4.64	2.15

14. In your opinion, which of the above methods is the most important way to acquire market information?

15. What percentage of your exports go: through a broker/agent?
direct to the final customer

PEXPAGNT

		Frequency	Percent
	0	6	25.0
	5	1	4.2
	20	2	8.3
	25	1	4.2
	40	1	4.2
	50	1	4.2
	70	2	8.3
	75	1	4.2
	80	1	4.2
	90	1	4.2
	95	1	4.2
	100	1	4.2
Missing	999	5	20.8

PEXPCUST

		Frequency	Percent
	0	5	20.8
	5	1	4.2
	10	1	4.2
	20	1	4.2
	25	1	4.2
	30	2	8.3
	50	1	4.2
	60	1	4.2
	75	1	4.2
	80	2	8.3
	95	1	4.2
	100	2	8.3
Missing	999	5	20.8

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Sample Size	*Importance (Mean Rating)*	*Standard Deviation*
Customer leads provided by an industry association	23	5.26	1.60
Customer leads provided by other manufacturers	22	4.82	1.53
Customer leads provided by importers/agents	23	5.00	1.60
Attendance at industry trade shows	23	6.09	1.16
Attendance at industry conferences	23	5.30	1.29
Customer recommendations	22	5.95	1.25
Company sales staff	22	4.86	1.64
Customer leads provided by the Dep't of Trade and Industry	23	5.04	1.61
New customers contacting you directly	23	5.78	1.48

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are imported, domestically sourced, or domestic LUS?

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PIMPORT	22	0	90	18.59	31.20
PDOMEST	22	0	100	67.50	33.41
PDOMLUS	22	0	100	13.91	24.85

PIMPORT

		Frequency	Percent
	0	13	54.2
	4	1	4.2
	5	1	4.2
	10	1	4.2
	30	1	4.2
	50	1	4.2
	60	1	4.2
	80	2	8.3
	90	1	4.2
Missing	999	2	8.3

PDOMEST

		Frequency	Percent
	0	1	4.2
	10	1	4.2
	20	2	8.3
	40	2	8.3
	50	1	4.2
	60	2	8.3
	70	2	8.3
	75	1	4.2
	80	1	4.2
	95	2	8.3
	100	7	29.2
Missing	999	2	8.3

PDOMLUS

		Frequency	Percent
	0	12	50.0
	1	1	4.2
	5	1	4.2
	10	1	4.2
	20	2	8.3
	30	3	12.5
	60	1	4.2
	100	1	4.2
Missing	999	2	8.3

18. How many people are employed by your firm?

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PEMPLOY	22	5	1300	185.82	337.97

PEMPLOY

		Frequency	Percent
	5	1	4.2
	7	1	4.2
	10	1	4.2
	14	1	4.2
	20	2	8.3
	21	1	4.2
	25	1	4.2
	30	1	4.2
	40	1	4.2
	50	2	8.3
	60	2	8.3
	75	1	4.2
	96	1	4.2
	155	1	4.2
	200	1	4.2
	350	1	4.2
	500	1	4.2
	1000	1	4.2
	1300	1	4.2
Missing	9999	2	8.3

PEMPLOYA

		Frequency	Percent
	1	8	33.3
	2	8	33.3
	3	6	25.0
Missing	9999	2	8.3

19. Where is your principal manufacturing operation located? ____________________

Appendix E

Summary of Survey Results Obtained in the US

SUMMARY OF THE US SURVEY ON THE INTRODUCTION AND MARKETING OF LESSER-USED TROPICAL TIMBER SPECIES

1. Are you aware of the efforts by environmental groups to boycott tropical hardwood products?

	Frequency	Percent
Aware	65	97.0
Not aware	2	3.0

2. To what extent have these boycott activities affected the demand for your tropical timber products?
(1=No effect, 7=Significant reduction).

	N	Minimum	Maximum	Mean	Std. Deviation
BOYIMPAC	66	1	7	3.08	1.55

	Frequency	Percent
1	12	17.9
2	14	20.9
3	15	22.4
4	13	19.4
5	8	11.9
6	2	3.0
7	2	3.0

Boycott impact by firm size.

****

1	Mean	2.93
	N	27
	Std. Deviation	1.47
2	Mean	3.17
	N	24
	Std. Deviation	1.69
3	Mean	2.93
	N	14
	Std. Deviation	1.21
Total	Mean	3.02
	N	65
	Std. Deviation	1.48

3. Does your firm currently import any lesser-used tropical timber species?

	Frequency	Percent
Yes	54	80.6
No	13	19.4

4. How readily do you think your customers would accept a lesser-used tropical timber species?
(1=Not at all, 4=Reluctantly, 7= Very readily)

	N	Minimum	Maximum	Mean	Std. Deviation
ACCEPTHW	67	2	7	4.01	1.34

	Frequency	Percent
2	10	14.9
3	15	22.4
4	18	26.9
5	14	20.9
6	8	11.9
7	2	3.0

Acceptance of LUS by firm size.

****

1	Mean	4.04
	N	27
	Std. Deviation	1.34
2	Mean	3.83
	N	24
	Std. Deviation	1.43
3	Mean	4.20
	N	15
	Std. Deviation	1.26
Total	Mean	4.00
	N	66
	Std. Deviation	1.35

5. In your opinion, how important would the following factors be in promoting the market acceptance of a lesser-used tropical timber species? *(1=Not Important, 7=Very Important).*

	Sample Size	Importance (Mean Rating)	Standard Deviation
Availability of technical information	67	5.36	1.57
Availability of promotional materials	67	4.81	1.80
Low trial price	67	5.18	1.87
Reliability of supply	67	6.46	0.93
Money-back guarantee for trial shipment	65	4.72	1.90
Acceptance of the species by an influential company	66	4.48	1.59
Availability of small trial volumes	67	5.48	1.57
Product certification of sustainability	66	4.39	1.71

EMPLOYA		TECHINFO	PROMOMAT	LOPRICE	SUPPLY	MONEYBAK	MKTLEADR	SMALLVOL	CERTIFY
Small firms	Mean	5.57	4.25	4.79	6.18	4.89	4.00	5.68	4.33
	N	28	28	28	28	28	27	28	27
	Std. Deviation	1.62	2.03	2.15	1.28	1.87	1.92	1.72	1.98
Medium firms	Mean	5.33	5.52	5.48	6.67	4.32	4.48	5.14	4.57
	N	21	21	21	21	19	21	21	21
	Std. Deviation	1.53	1.29	1.83	.48	2.08	1.29	1.71	1.40
Large firms	Mean	4.93	4.73	5.20	6.60	4.93	5.20	5.27	4.20
	N	15	15	15	15	15	15	15	15
	Std. Deviation	1.67	1.53	1.32	.51	1.79	1.01	.96	1.74
Total	Mean	5.34	4.78	5.11	6.44	4.73	4.44	5.41	4.38
	N	64	64	64	64	62	63	64	63
	Std. Deviation	1.60	1.77	1.88	.94	1.91	1.59	1.57	1.73

6. What factor do you feel would be most important in encouraging importers to stock a lesser-used tropical timber species?

7. In your opinion, how important would the availability of a range of products be in encouraging you to stock a lesser-used species (e.g., solid lumber, mouldings, and panel products all produced from the new species)? *(1=Not important, 7=Very important).*

	N	Minimum	Maximum	Mean	Std. Deviation
PRODRANG	67	1	7	4.33	1.84

	Frequency	Percent
1	5	7.5
2	9	13.4
3	6	9.0
4	17	25.4
5	9	13.4
6	11	16.4
7	10	14.9

Product range by firm size.

****

1	Mean	4.44
	N	27
	Std. Deviation	1.87
2	Mean	4.04
	N	24
	Std. Deviation	1.68
3	Mean	4.47
	N	15
	Std. Deviation	2.10
Total	Mean	4.30
	N	66
	Std. Deviation	1.84

8. Please indicate where you would go to get information about lesser-used tropical timber species.

9. In your opinion, how important is the utilization of lesser-used species to the sustainable forest management of tropical forests? *(1=Not important, 7=Very important).*

	N	Minimum	Maximum	Mean	Std. Deviation
SUSMGMT	66	1	7	5.23	1.40

	Frequency	Percent
1	1	1.5
2	1	1.5
3	7	10.4
4	9	13.4
5	15	22.4
6	21	31.3
7	12	17.9

Sustainable management by firm size.

****

1	Mean	5.00
	N	27
	Std. Deviation	1.57
2	Mean	5.48
	N	23
	Std. Deviation	1.27
3	Mean	5.20
	N	15
	Std. Deviation	1.32
Total	Mean	5.22
	N	65
	Std. Deviation	1.41

10. Approximately what volume of each of the following products did your company sell in 1996?

	N		Mean	Median	Mode
	Valid	Missing			
Lumber	48	19	60180552	1000000	
Plywood	48	19	149042887	.00	0
Veneer	48	19	76940965	.00	0

Volume of lumber sold (board feet).

	Frequency	Percent
0	5	7.5
12500	1	1.5
60000	1	1.5
92000	1	1.5
100000	5	7.5
110000	1	1.5
125000	1	1.5
167000	1	1.5
200000	1	1.5
250000	1	1.5
300000	1	1.5
550000	1	1.5
600000	1	1.5
800000	1	1.5
900000	1	1.5
1000000	3	4.5
1500000	2	3.0
1750000	1	1.5
2000000	3	4.5
2500000	3	4.5
3000000	4	6.0
3750000	1	1.5
5000000	1	1.5
12000000	1	1.5
15000000	1	1.5
20000000	3	4.5
55000000	1	1.5
2700000000	1	1.5

Volume of plywood sold (square feet).

	Frequency	Percent
0	30	44.8
1000	1	1.5
2000	1	1.5
10000	1	1.5
20000	1	1.5
200000	1	1.5
370000	1	1.5
400000	1	1.5
500000	1	1.5
645572	1	1.5
1000000	1	1.5
1110000	1	1.5
3000000	1	1.5
4200000	1	1.5
13600000	1	1.5
16000000	1	1.5
113000000	1	1.5
1000000000	1	1.5
6000000000	1	1.5

Volume of veneer sold (square feet).

	Frequency	Percent
0	32	47.8
300	1	1.5
1000	3	4.5
5000	1	1.5
8000	1	1.5
100000	3	4.5
150000	1	1.5
200000	1	1.5
3500000	1	1.5
24000000	1	1.5
25000000	1	1.5
40000000	1	1.5
3600000000	1	1.5

11. Approximately what percentage of your total sales in 1996 were tropical hardwoods?

	N	Minimum	Maximum	Mean	Std. Deviation
LUMTHW	61	0	100	41.26	38.30
PLYTHW	61	0	100	12.12	25.52
VENTHW	61	0	100	12.05	26.02

Percentage of lumber sales from THW.

		Frequency	Percent
	0	10	14.9
	1	2	3.0
	3	1	1.5
	4	1	1.5
	5	1	1.5
	8	2	3.0
	10	6	9.0
	15	2	3.0
	20	3	4.5
	25	1	1.5
	26	1	1.5
	30	2	3.0
	35	2	3.0
	40	2	3.0
	50	4	6.0
	65	2	3.0
	75	1	1.5
	76	1	1.5
	80	4	6.0
	90	2	3.0
	95	1	1.5
	100	10	14.9
Missing	999	6	9.0

Percentage of plywood sales from THW.

		Frequency	Percent
	0	35	52.2
	1	1	1.5
	1	3	4.5
	2	1	1.5
	3	2	3.0
	5	3	4.5
	10	2	3.0
	15	4	6.0
	18	1	1.5
	30	1	1.5
	45	1	1.5
	50	1	1.5
	70	3	4.5
	80	1	1.5
	100	2	3.0
Missing	999	6	9.0

Percentage of veneer sales from THW.

		Frequency	Percent
	0	39	58.2
	1	4	6.0
	2	2	3.0
	5	2	3.0
	10	1	1.5
	12	1	1.5
	20	1	1.5
	25	1	1.5
	30	3	4.5
	70	2	3.0
	75	1	1.5
	80	2	3.0
	85	1	1.5
	100	1	1.5
Missing	999	6	9.0

12. Approximately what percentage of your tropical hardwood imports in 1996 originated from the following regions. *Total should equal 100 percent.*

	N		Mean	Median	Mode
	Valid	Missing			
Africa	65	18	25.29	10.00	10
S. America	65	18	49.23	50.00	50
S.E. Asia	65	18	24.48	10.00	10

Percentage of imports from Africa.

	Frequency	Percent
0	11	13.3
1	3	3.6
2	1	1.2
5	7	8.4
10	11	13.3
20	3	3.6
25	3	3.6
29	1	1.2
30	4	4.8
40	8	9.6
45	1	1.2
50	1	1.2
55	1	1.2
60	5	6.0
75	1	1.2
80	1	1.2
85	1	1.2
100	2	2.4

Percentage of imports from South/Central America.

	Frequency	Percent
0	5	6.0
2	1	1.2
5	1	1.2
10	3	3.6
15	2	2.4
20	2	2.4
23	1	1.2
25	2	2.4
29	1	1.2
30	5	6.0
40	5	6.0
45	2	2.4
50	6	7.2
53	1	1.2
55	2	2.4
60	4	4.8
65	3	3.6
70	2	2.4
75	1	1.2
80	4	4.8
85	2	2.4
90	5	6.0
98	1	1.2
100	4	4.8

Percentage of imports from Southeast Asia.

	Frequency	Percent
0	13	15.7
1	1	1.2
5	5	6.0
9	1	1.2
10	17	20.5
15	2	2.4
20	4	4.8
25	2	2.4
35	2	2.4
42	1	1.2
43	1	1.2
45	2	2.4
50	2	2.4
55	1	1.2
60	3	3.6
69	1	1.2
70	1	1.2
75	2	2.4
77	1	1.2
80	1	1.2
100	2	2.4

13. How many people were employed by your firm in 1996?

	N	Minimum	Maximum	Mean	Std. Deviation
EMPLOY	64	1	40000	702.08	4994.46

Number of employees at respondent firms.

	Frequency	Valid Percent
1	28	43.8
2	21	32.8
3	15	23.4

Number of employees at respondent firms.

	Frequency	Percent
1	3	3.6
2	2	2.4
3	4	4.8
4	2	2.4
5	3	3.6
6	3	3.6
7	1	1.2
8	2	2.4
9	2	2.4
10	6	7.2
11	1	1.2
12	2	2.4
13	1	1.2
14	1	1.2
17	2	2.4
19	1	1.2
20	3	3.6
22	1	1.2
24	1	1.2
25	3	3.6
30	2	2.4
36	1	1.2
46	1	1.2
49	1	1.2
75	2	2.4
100	4	4.8
150	3	3.6
232	1	1.2
450	1	1.2
453	1	1.2
800	1	1.2
1350	1	1.2
40000	1	1.2

14. Please indicate your company's approximate sales in 1996?

_____ $0 - $1,000,000
_____ $1,000,001 - $5,000,000
_____ $5,000,001 - $10,000,000
_____ $10,000,001 - $25,000,000
_____ $25,000,001 - $50,000,000
_____ more than $50,000,000

Annual sales of respondent firms.

	Frequency	Percent
1	8	12.1
2	19	28.8
3	11	16.7
4	13	19.7
5	3	4.5
6	12	18.2

Annual sales of respondent firms.

	Frequency	Percent
1	27	40.9
2	24	36.4
3	15	22.7

Appendix F

Completed Questionnaires from the Philippine Survey

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   ✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

   No Effect 1 2 3 4 5 6 7 Significant Reduction

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

   Not Important 1 2 3 4 5 6 7 Very Important

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	Very Effective 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	No Impact 4	5	6	Strongly Encouraged 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:	NOT APPLICABLE								
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*						100 cu. m.			
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*			200 cu. m.						
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*						100 cu. m.			
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? ✓ *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

1. Financial and moral Support of the Government.
2. Technical Assistance Services on processing and utilization of Lesser-used species

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

Internet connection

15. What percentage of your exports go: through a broker/agent? ________%
direct to the final customer ________%

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: Imported ________%
domestically sourced 100 %
domestic LUS 60 %

18. How many people are employed by your firm? 20 employees

19. Where is your principal manufacturing operation located? Balilahan, Mabua, Tandag, Surigao del Sur

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*								116 m^2	
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

____ *Yes* __X__ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						*Very Effective*
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			*No Impact*			*Strongly Encouraged*
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? _✓_ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? _✓_ *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? _✓_ *Yes* ____ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

technical species information and availability LUS.

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

DTI and industry associations /journals

15. What percentage of your exports go: through a broker/agent? ________ %
direct to the final customer __100%__ %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported __80__ %
domestically sourced __20__ %
domestic LUS ________ %

18. How many people are employed by your firm? 96 ________

19. Where is your principal manufacturing operation located? PEZA, LAPU-LAPU CITY

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan		440 Cbm							
Korea									
UK									
USA		15 CbM							
Other: GERMANY		10 Cbm							
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   ____ Yes   ✓ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						*Very Effective*
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			*No Impact*			*Strongly Encouraged*
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk 1	2	3	*Medium Risk* 4	5	6	*High Risk* 7
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ~~✓~~ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all 1	2	3	*Reluctantly* 4	5	6	*Very Readily* 7
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important 1	2	3	4	5	6	*Very Important* 7
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

INFORMATION OF LUS TO MANUFACTURERS & CONSUMERS

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important 1	2	3	4	5	6	*Very Important* 7
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

ATTENDANCE IN INDUSTRY TRADE SHOWS.

15. What percentage of your exports go: through a broker/agent? 80 %
direct to the final customer 20 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important 1	2	3	4	5	6	*Very Important* 7
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 80 %
domestically sourced ~~15~~ 20 %
domestic LUS ~~5~~ %

18. How many people are employed by your firm? 30

19. Where is your principal manufacturing operation located? ANGELES CITY

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)? ✓ NO EX/PORT

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippinensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

NO SIGNIFICANT USE

(1)

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

✓ Yes ___ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect 1 2 3 4 5 6 7 *Significant Reduction*

Answer: 5

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important 1 2 3 4 5 6 7 *Very Important*

Answer: 4

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	*Very Effective* 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

NOT EXPORTING AT THE MOMENT

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	*No Impact* 4	5	6	*Strongly Encouraged* 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

FOR PLANTATION SPECIES

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? ✓ *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

AVAILABILITY + PRICING

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

Discussion w/ customers + other Manufacturers

15. What percentage of your exports go: through a broker/agent? ______% direct to the final customer ______% } NO EX/

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 60 %
domestically sourced 40 % ← PLANTA
domestic LUS ~~40~~ %

18. How many people are employed by your firm? 1,300

19. Where is your principal manufacturing operation located? MAGALLANES, AGUSAN DEL NORT

M

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   ✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

   No Effect 1 2 3 (4) 5 6 7 Significant Reduction

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

   Not Important 1 2 3 4 5 6 (7) Very Important

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	Very Effective 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	(7)
Advertising campaign aimed at consumers	1	2	3	4	5	6	(7)
Reduce prices to stimulate demand	1	2	3	4	5	6	(7)
Export to less environmentally sensitive markets	1	2	3	4	5	6	(7)
Shift export focus to regional Asian markets	1	2	3	4	5	6	(7)
Shift focus to domestic markets	1	2	3	4	5	6	(7)
Shift product mix to higher value products	1	2	3	4	5	6	(7)
Increase the number of LUS utilized	1	2	3	4	5	6	(7)
Implement sustainable forest management	1	2	3	4	5	6	(7)
Cooperate with environmental groups	1	2	3	4	5	6	(7)
Develop a timber certification program	1	2	3	4	5	6	(7)
Use plantation species	1	2	3	4	5	6	(7)
Ignore the boycott	(1)	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	No Impact 4	5	6	Strongly Encouraged 7
Participation in industry associations	1	2	3	4	5	6	(7)
Capital investments in processing equipment	1	2	3	4	(5)	6	7
Capital investments in new manufacturing facilities	1	2	3	4	(5)	6	7
Development of value-added industry	1	2	3	4	5	6	(7)
Sustainable forest management	1	2	3	4	5	6	(7)
International competitiveness	1	2	3	4	5	6	(7)
Increased utilization of lesser-known timber species	1	2	3	4	5	6	(7)
Increased utilization of imported timber	1	2	3	4	(5)	6	7
Increased utilization of non-wood forest products	1	2	3	4	(5)	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan		90 cbm							
Korea		30 cbm							
UK									
USA		300 cbm							
Other: Argentina		30 cbm							
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995. "None"

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippoenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ____ *Yes* ✓ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
vailability of technical species information	1	2	3	4	5	6	7
vailability of long-term supply	1	2	3	4	5	6	7
ow initial trial price	1	2	3	4	5	6	7
lisk-free trial shipments	1	2	3	4	5	6	7
loney-back guarantees	1	2	3	4	5	6	7
cceptance by influential trader/manufacturer	1	2	3	4	5	6	7
bility to export small trial volumes	1	2	3	4	5	6	7
ther: ____	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

Availability of long-term supply

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

Discussion with importers / agents

15. What percentage of your exports go: through a broker/agent? 40 %
direct to the final customer 60 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ____ %
domestically sourced 100 %
domestic LUS ____ %

18. How many people are employed by your firm? 75

19. Where is your principal manufacturing operation located? Betis, Guagua, Pampanga

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									100
UK									
USA									200
Other: France									200
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995. WE USE Narra & Acacia wood only

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

_____ *Yes*   ✓ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	*Very Effective* 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	*No Impact* 4	5	6	*Strongly Encouraged* 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			*Medium Risk*			*High Risk*
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ____ *Yes* ✓ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			*Reluctantly*			*Very Readily*
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						*Very Important*
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

FEASIBILITY to compete

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						*Very Important*
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7 Expo
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

Discussion w/ Customers

15. What percentage of your exports go: through a broker/agent? ____ %
direct to the final customer 100 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						*Very Important*
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ____ %
domestically sourced 100 %
domestic LUS ____ %

18. How many people are employed by your firm? 40

19. Where is your principal manufacturing operation located? ~~Valenz~~ Bulacan

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?
   ✓ Yes   ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	Very Effective 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	No Impact 4	5	6	Strongly Encouraged 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

NONE

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other: ____
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

NONE

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ____ Yes ✓ No

8. Does your firm currently market LUS in the Philippines? ____ Yes ✓ No

9. Does your firm currently export lesser-used timber species? ____ Yes ✓ No

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all		Reluctantly				Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

AVAILABILITY OF LONG TERM SUPPLY

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

ATTENDANCE AT INDUSTRY TRADE SHOWS - BECAUSE YOU WILL LEARN TWO WAYS // MARKET TRENDS AND PRODUCT TRENDS

15. What percentage of your exports go: through a broker/agent? 10 %
direct to the final customer 10 %

"WE ARE CATERING 80% DOMESTIC MARKET ONLY"

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 50 %
domestically sourced 50 %
domestic LUS ____ %

18. How many people are employed by your firm? 50

19. Where is your principal manufacturing operation located? ZAMBALES

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

 ✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	*Lumber*	*Furniture*	*Furniture Components*	*Doors*	*Joinery/ Millwork*	*Parquet Flooring*	*Mouldings*	*Veneer/ Plywood*	*Other:*
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	*Lumber*	*Furniture*	*Furniture Components*	*Doors*	*Joinery/ Millwork*	*Parquet Flooring*	*Mouldings*	*Veneer/ Plywood*	*Other:*
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? __✓__ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? __✓__ *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? __✓__ *Yes* ____ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

Price, acceptability by end users, and availability of raw materials

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

By hiring outside firm to conduct market research in their own country who knows the market, designs et

15. What percentage of your exports go: through a broker/agent? __90__ %
direct to the final customer __10__ %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ________ %
domestically sourced __70__ %
domestic LUS __30__ %

18. How many people are employed by your firm? __50__

19. Where is your principal manufacturing operation located? __Pampanga__

Company address Not Known

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

✓ *Yes* ____ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	*Very Effective* 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industr with respect to the following factors?

	Strongly Discouraged 1	2	3	*No Impact* 4	5	6	*Strongly Encouraged* 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)? N/A.

Country	*Lumber*	*Furniture*	*Furniture Components*	*Doors*	*Joinery/ Millwork*	*Parquet Flooring*	*Mouldings*	*Veneer/ Plywood*	*Other:*
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995. N/A.

Species	*Lumber*	*Furniture*	*Furniture Components*	*Doors*	*Joinery/ Millwork*	*Parquet Flooring*	*Mouldings*	*Veneer/ Plywood*	*Other:*
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			*Medium Risk*			*High Risk*
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? ✓ *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? ✓ *Yes* ____ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			*Reluctantly*			*Very Readily*
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						*Very Important*
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

availability

Knowledge of wood's properties

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						*Very Important*
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

from customers

15. What percentage of your exports go: through a broker/agent? ______ %
direct to the final customer ______ %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						*Very Important*
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 0 %
domestically sourced ______ %
domestic LUS 100. %

18. How many people are employed by your firm? 14

19. Where is your principal manufacturing operation located? Parañaque

(10)

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?
   ✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

Note: policy on IFMA should be consistence, in order to encourage more participation, w/o citizen confi... on reforestation any program on wood will be

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris (DITA)									
Amoora aherniana (KATO)									
Celtis luzonica (MAGABUYO)									
Calophyllum blancoi (BITANGHOL)									
Diospyros inclusa (ANANG-GULOD)									
Diospyros pyrrhocarpa (ANANG)									
Diplodiscus paniculatus (BALOBO)									
Duabanga moluccana (LOKTOB)									
Erythrina subumbrans (RARANG)									
Ficus balete (BALETE)									
Lithocarpus llanosii (ULAYAN)									
Macaranga tanarius (BINUNGA)									
Myristica philippinensis (DUGUAN)									
Nephelium mutabile (KAPULASAN)									
Octomeles sumatrana (BINUANG)									
Palaquium luzoniense (NATO)									
Palaquium philippense (MALAK-MALAK)									
Pometia pinnata (MALUGAI)									
Sterculia philippinensis (BANILAD)									
Terminalia foetidissima (TALISAI GUBAT)									
Trema orientalis (ANABIONG)									
Xanthophyllum excelsum (BOK-BOK)									
Ziziphus talanai (BALAKAT)									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? __✓__ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? __✓__ *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* __✓__ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all		Reluctantly				Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

availability of long term Supply.

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is ~~the~~ most important way to acquire market information?

Industry Association

15. What percentage of your exports go: through a broker/agent? ______% "Ban on export"
direct to the final customer ______%

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported __30__ %
domestically sourced __60__ %
domestic LUS __10__ %

18. How many people are employed by your firm? __200 up__

19. Where is your principal manufacturing operation located? __Zamboanga__

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Mynstica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

(1)

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?
   ✓ *Yes* ____ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	*Very Effective* 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	*No Impact* 4	5	6	*Strongly Encouraged* 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			*Medium Risk*			*High Risk*
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ____ *Yes* ✓ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			*Reluctantly*			*Very Readily*
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						*Very Important*
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

AFFORDABILITY
AVAILABILITY OF RAW MATERIALS

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						*Very Important*
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

DISCUSSIONS WITH CUSTOMERS
ATTENDANCE AT INDUSTRY TRADE SHOWS + CONFERENCES

15. What percentage of your exports go: through a broker/agent? ______% direct to the final customer ______%

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						*Very Important*
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ______%
domestically sourced 100 %
domestic LUS ______%

18. How many people are employed by your firm? 25

19. Where is your principal manufacturing operation located? SOLANO, NUEVA VIZCAYA, R

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea					20				
UK									
USA					40				
Other: Netherlands					180				
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*	150								
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*							100	120	
Palaquium luzoniense *(NATO)*	50								
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

✔ *Yes* ____ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect 1 2 3 4 5 6 7 *Significant Reduction*

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important 1 2 3 4 5 6 7 *Very Important*

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	*Very Effective* 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	*No Impact* 4	5	6	*Strongly Encouraged* 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
✓ Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? ✓ *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

Availability of technical specie information.

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

Attendance at industry trade shows.

15. What percentage of your exports go: through a broker/agent? 20 % direct to the final customer 80 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 4 % domestically sourced 95 % domestic LUS 1 %

18. How many people are employed by your firm? 500

19. Where is your principal manufacturing operation located? Aurora and Bulacan province.

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?
   ✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan		N/A							
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet/ Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris (DITA)									
Amoora aherniana (KATO)									
Celtis luzonica (MAGABUYO)									
Calophyllum blancoi (BITANGHOL)									
Diospyros inclusa (ANANG-GULOD)									
Diospyros pyrrhocarpa (ANANG)									
Diplodiscus paniculatus (BALOBO)									
Duabanga moluccana (LOKTOB)									
Erythrina subumbrans (RARANG)									
Ficus balete (BALETE)									
Lithocarpus llanosii (ULAYAN)									
Macaranga tanarius (BINUNGA)									
Myristica philippinensis (DUGUAN)									
Nephelium mutabile (KAPULASAN)									
Octomeles sumatrana (BINUANG)		20 cu.m							
Palaquium luzoniense (NATO) ✓		.170 cu.m							
Palaquium philippense (MALAK-MALAK)									
Pometia pinnata (MALUGAI)									
Sterculia philippenensis (BANILAD)									
Terminalia foetidissima (TALISAI GUBAT)									
Trema orientalis (ANABIONG)									
Xanthophyllum excelsum (BOK-BOK)									
Ziziphus talanai (BALAKAT)									

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan		N/A							
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*			30 cu. m						
Palaquium luzoniense *(NATO)*			170 cu. m						
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?
   __✓__ *Yes* ____ *No*

2. How has the tropical hardwood boycott affected demand for your products?

   No Effect 1 2 3 4 5 6 7 *Significant Reduction*

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

   Not Important 1 2 3 4 5 6 7 *Very Important*

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						*Very Effective*
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			*No Impact*			*Strongly Encouraged*
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   ____ Yes ✓ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other
Japan									
Korea									
UK									
USA		80 5[illegible]m			14[illegible] cbm				
Other: Domestic									
Other: Local									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other
Alstonia scholaris *(DITA)*		10					✓		
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*	10	✓							
Palaquium luzoniense *(NATO)*		2✓		✓					
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ___ *No*

8. Does your firm currently market LUS in the Philippines? ✓ *Yes* ___ *No*

9. Does your firm currently export lesser-used timber species? ___ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

1. Improve the quality of finishing.
2. Variety of design.
3. Make it durable in construction.

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

1. Trade shows.

15. What percentage of your exports go: through a broker/agent? 5 % direct to the final customer 95 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: thru recommendation	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 5 % domestically sourced 75 % domestic LUS 20 %

18. How many people are employed by your firm? 60

19. Where is your principal manufacturing operation located? Davao City

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   __✓__ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan		23 c.m ~~16...~~							
Korea			18.5 c.m						
UK									
USA			12. c.m						
Other:			15. C.m						
Other:			15. C m						

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*			15 c.m						
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*			10. cm						
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*			5. Cm.						
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk		Medium Risk				High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ Yes ____ No

8. Does your firm currently market LUS in the Philippines? ✓ Yes ____ No

9. Does your firm currently export lesser-used timber species? ✓ Yes ____ No

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

AVAILABILITY
PRICE IS LOWER
ACCEPTABLE

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

D.T.I. , ATTENDANCE @ INTERNATIONAL SHOW

15. What percentage of your exports go: through a broker/agent? 20 % direct to the final customer 80 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: Imported 10 % domestically sourced 60 % domestic LUS 30 %

18. How many people are employed by your firm? 60 +

19. Where is your principal manufacturing operation located? DAVAO CITY

Mindanao

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)? — N.A.

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*	620 m^3								
Palaquium luzoniense *(NATO)*	300 m^3								
Palaquium philippense *(MALAK-MALAK)*	120 m^3								
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

(16)

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   ✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	Very Effective 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	No Impact 4	5	6	Strongly Encouraged 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

USEFULNESS AND MARKET DEMAND

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

DISCUSSIONS WITH IMPORTER/AGENT, MANUFACTURERS AND CUSTOMERS

15. What percentage of your exports go: through a broker/agent? 70 %
direct to the final customer 30 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ____ %
domestically sourced 100 %
domestic LUS ____ %

18. How many people are employed by your firm? 1,000

19. Where is your principal manufacturing operation located? DINAPIGUE, ISABELA

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other: DUBAI, UAE		10							
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*		~20							
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

* We may have used more but the local names in Visayan might be different from those in Luzon.

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk 1	2	3	Medium Risk 4	5	6	High Risk 7
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ___ *No*

8. Does your firm currently market LUS in the Philippines? ___ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ___ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all 1	2	3	Reluctantly 4	5	6	Very Readily 7
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important 1	2	3	4	5	6	Very Important 7
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

low initial trial price, availability of supply

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important 1	2	3	4	5	6	Very Important 7
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

The ones I encircled # 7

15. What percentage of your exports go: through a broker/agent? 100 %
direct to the final customer 0 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important 1	2	3	4	5	6	Very Important 7
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ______	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 0 %
domestically sourced 95 %
domestic LUS 5 %

18. How many people are employed by your firm? 21

19. Where is your principal manufacturing operation located? BACOLOD CITY, NEGROS OCC.

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

 ✓ Yes   ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
	1	2	3	4	5	6	7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
	1	2	3	4	5	6	7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Zizyphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ Yes ____ No

8. Does your firm currently market LUS in the Philippines? ✓ Yes ____ No

9. Does your firm currently export lesser-used timber species? ____ Yes ✓ No

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

Promotions/Marketing at high quality value added products

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

Customers

Only Domestic

15. What percentage of your exports go: through a broker/agent? ________% direct to the final customer ________%

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ________% domestically sourced ________% domestic LUS ________%

18. How many people are employed by your firm? ____________

19. Where is your principal manufacturing operation located? ____________

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   ✓ *Yes* ____ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						*Very Effective*
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			*No Impact*			*Strongly Encouraged*
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk 1	2	3	Medium Risk 4	5	6	High Risk 7
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ___ *No*

8. Does your firm currently market LUS in the Philippines? ✓ *Yes* ___ *No*

9. Does your firm currently export lesser-used timber species? ___ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all 1	2	3	Reluctantly 4	5	6	Very Readily 7
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important 1	2	3	4	5	6	Very Important 7
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

____

____

____

____

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important 1	2	3	4	5	6	Very Important 7
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

____

____

15. What percentage of your exports go: through a broker/agent? 25 %
direct to the final customer 75 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important 1	2	3	4	5	6	Very Important 7
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ______ %
domestically sourced 100 %
domestic LUS / %

18. How many people are employed by your firm? 100

19. Where is your principal manufacturing operation located? ILOILO

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   ____ Yes X/O No

2. How has the tropical hardwood boycott affected demand for your products?

   No Effect 1 2 3 4 5 6 7 *Significant Reduction*

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

   Not Important 1 2 3 4 5 6 7 *Very Important*

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	*Very Effective* 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	*No Impact* 4	5	6	*Strongly Encouraged* 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan		1.5 m³	.5 m³	.5 m³	2.0 m³	2.6 m³	.2 m³		0.05 m³
Korea		.7 m³	.7 m³	.1 m³	1.0 m³	1.0 m³	.2 m³		0.02 m³
UK		.4 m³	.3 m³	.5 m	.2 m³	2.6 m³	.1 m³		0.01 m³
USA		1.0 m³	.5 m³	.2 m³	.5 m³	.5 m³	.5 m³		0.01 m³
Other:		.5 m³	.4 m³	.8 m³	.5 m³	.5 m³	.2 m³		0.03 m³
Other:		.5 m³	.2 m³	.9 m³	.5 m³	.5 m³			0.02 m³

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*		.02 m³	.05 m³	0.05 m³					0.5 m³
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*		0.01 m³							0.[illegible] m³
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica phillipinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*		0.10 m³	.08 m³	0.05 m³					.5 m³
Palaquium luzoniense *(NATO)*		0.8 m³	0.5 m³	0.5 m³					0.5 m³
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*		0.10 m³	0.2 m³	0.01 m³					1.0 m³
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? YES *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? YES *Yes* ____ *No*

9. Does your firm currently export lesser-used timber species? YES *Yes* ____ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all		Reluctantly				Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

Advertising Campaign aimed at importers / industry, advertising campaign aimed at consumers, Source of Capital in processing equipment, Source of Capital in New manufacturing facilities

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other:	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

Discussions with other manufacturers, Industry Journals, Discussions with importers/agents

15. What percentage of your exports go: through a broker/agent? 70 % direct to the final customer 30 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: Imported 0 % domestically sourced 100 % domestic LUS 10 %

18. How many people are employed by your firm? 10

19. Where is your principal manufacturing operation located? Some Address

N/A

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other
Japan									
Korea									
UK									
USA									
Other:									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippinensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

____ Yes ✓ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect 1✓ 2 3 4 5 6 7 Significant Reduction

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important 1 2 3 4 5 6 7✓ Very Important

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	Very Effective 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7✓
Advertising campaign aimed at consumers	1	2	3	4	5	6	7✓
Reduce prices to stimulate demand	1	2	3	4	5	6	7✓
Export to less environmentally sensitive markets	1	2	3	4	5✓	6	7
Shift export focus to regional Asian markets	1	2	3✓	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7✓
Shift product mix to higher value products	1	2	3	4	5	6	7✓
Increase the number of LUS utilized	1	2	3	4	5	6	7✓
Implement sustainable forest management	1	2	3	4	5	6	7✓
Cooperate with environmental groups	1	2	3	4	5	6	7✓
Develop a timber certification program	1	2	3	4	5	6	7✓
Use plantation species	1	2	3	4	5	6	7✓
Ignore the boycott	1✓	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	No Impact 4	5	6	Strongly Encouraged 7
Participation in industry associations	1	2	3	4	5	6	7✓
Capital investments in processing equipment	1	2	3	4✓	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4✓	5	6	7
Development of value-added industry	1	2	3	4	5	6	7✓
Sustainable forest management	1	2	3	4	5	6	7✓
International competitiveness	1	2	3	4	5	6	7✓
Increased utilization of lesser-known timber species	1	2	3	4✓	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7✓
Increased utilization of non-wood forest products	1	2	3	4	5	6	7✓
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7✓

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	✓
Economic environment	1	2	3	4	5	6	✓
Tropical hardwood boycotts	1	2	3	4	5	6	✓
Accessibility of foreign exchange	✓	2	3	4	5	6	7
Restrictions on repatriation of profits	✓	2	3	4	5	6	7
Government policy regarding forests	✓	2	3	4	5	6	7
Timber resource availability	✓	2	3	4	5	6	7
Sustainable forest management	✓	2	3	4	5	6	7
Timber certification/labeling programs	✓	2	3	4	5	6	7
Forest concession policy	✓	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ____ *Yes* ✓ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	✓	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	✓
Availability of long-term supply	1	2	3	4	5	6	✓
Low initial trial price	1	2	3	4	5	6	✓
Risk-free trial shipments	1	2	3	4	5	6	✓
Money-back guarantees	✓	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	✓
Ability to export small trial volumes	1	2	3	4	5	6	✓
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

AVAILABILITY IN SUSTAINABLE QUANTITY

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	✓
Industry associations	1	2	3	4	5	6	✓
Conduct our own market research	1	2	3	4	5	6	✓
Hire an outside firm to conduct market research	✓	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	✓
Attendance at industry conferences	1	2	3	4	5	6	✓
Discussions with customers	1	2	3	4	5	6	✓
Discussions with other manufacturers	1	2	3	4	5	6	✓
Discussions with importers/agents	✓	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	✓
Industry journals	1	2	3	4	5	6	✓
Internet (World Wide Web) connection	1	2	3	4	5	6	✓
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

WORLD WIDE WEB

15. What percentage of your exports go: through a broker/agent? ________%
direct to the final customer ________%

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	✓
Customer leads provided by other manufacturers	1	2	3	4	5	6	✓
Customer leads provided by importers/agents	✓	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	✓
Attendance at industry conferences	1	2	3	4	5	6	✓
Customer recommendations	1	2	3	4	5	6	✓
Company sales staff	1	2	3	4	5	6	✓
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	✓
New customers contacting you directly	1	2	3	4	5	6	✓
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ________%
domestically sourced 100% %
domestic LUS ________%

18. How many people are employed by your firm? 5

19. Where is your principal manufacturing operation located? BGY LIPOT CALINOG ILOIL

0150/95

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GULOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   _X_ *Yes* ____ *No*

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						*Significant Reduction*
1 X	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						*Very Important*
1	2	3	4	5	6	7 X

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	*Very Effective* 7
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7 X
Advertising campaign aimed at consumers	1	2	3	4	5	6	7 X
Reduce prices to stimulate demand	1	2	3	4	5 X	6	7
Export to less environmentally sensitive markets	1 X	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3 X	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3 X	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7 X
Implement sustainable forest management	1	2	3	4	5	6	7 X
Cooperate with environmental groups	1	2	3	4	5 X	6	7
Develop a timber certification program	1	2	3	4	5	6	7 X
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1 X	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industr with respect to the following factors?

	Strongly Discouraged 1	2	3	*No Impact* 4	5	6	*Strongly Encouraged* 7
Participation in industry associations	1 X	2	3	4	5	6	7
Capital investments in processing equipment	1 X	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1 X	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7 X
Sustainable forest management	1	2	3	4	5	6	7 X
International competitiveness	1	2	3	4	5	6	7 X
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7 X
Increased utilization of imported timber	1	2	3	4	5 X	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7 X

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			Medium Risk			High Risk
Political environment	1	2	3	4X	5	6	7
Confiscation/expropriation of property	1X	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7X
Tropical hardwood boycotts	1	2	3	4	5	6	7X
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7X
Timber resource availability	1	2	3	4X	5	6	7
Sustainable forest management	1	2	3	4X	5	6	7
Timber certification/labeling programs	1	2	3	4X	5	6	7
Forest concession policy	1	2	3	4	5	6	7X

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? __X__ *Yes* _____ *No*

8. Does your firm currently market LUS in the Philippines? __X__ *Yes* _____ *No*

9. Does your firm currently export lesser-used timber species? _____ *Yes* __X__ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4X	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7X
Availability of long-term supply	1	2	3	4	5	6	7X
Low initial trial price	1	2	3	4	5	6	7X
Risk-free trial shipments	1X	2	3	4	5	6	7
Money-back guarantees	1X	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7X
Ability to export small trial volumes	1	2	3	4	5	6	7X
Other: ______________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

MATERIAL QUALITY
MATERIAL DURABILITY
PRODUCTS DESIGNS (DYNAMIC ASPECT)

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7X
Industry associations	1	2	3	4	5	6	7X
Conduct our own market research	1	2	3	4X	5	6	7
Hire an outside firm to conduct market research	1	2	3	4X	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7X
Attendance at industry conferences	1	2	3	4	5	6	7X
Discussions with customers	1	2X	3	4	5	6	7
Discussions with other manufacturers	1	2X	3	4	5	6	7
Discussions with importers/agents	1	2	3	4X	5	6	7
Industry association market intelligence reports	1	2	3	4X	5	6	7
Industry journals	1	2	3	4X	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7X
Other: ______________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

ATTENDANCE AT INDUSTRY TRADE SHOW
and CONFERENCE

15. What percentage of your exports go: through a broker/agent? ________%
direct to the final customer ________%

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7X
Customer leads provided by other manufacturers	1	2	3	4	5X	6	7
Customer leads provided by importers/agents	1	2	3	4	5X	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7X
Attendance at industry conferences	1	2	3	4	5	6	7X
Customer recommendations	1	2	3	4X	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7X
New customers contacting you directly	1	2	3	4X	5	6	7
Other: ______________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ________%
domestically sourced __100__%
domestic LUS __30__%

18. How many people are employed by your firm? __7__

19. Where is your principal manufacturing operation located? Tuguegarao, Cagayan

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan		Ø							
Korea		Ø							
UK		300							
USA		700							
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

DO NOT USE ANY.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet/ Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris (DITA)									
Amoora aherniana (KATO)									
Celtis luzonica (MAGABUYO)									
Calophyllum blancoi (BITANGHOL)									
Diospyros inclusa (ANANG-GULOD)									
Diospyros pyrrhocarpa (ANANG)									
Diplodiscus paniculatus (BALOBO)									
Duabanga moluccana (LOKTOB)									
Erythrina subumbrans (RARANG)									
Ficus balete (BALETE)									
Lithocarpus llanosii (ULAYAN)									
Macaranga tanarius (BINUNGA)									
Myristica philippinensis (DUGUAN)									
Nephelium mutabile (KAPULASAN)									
Octomeles sumatrana (BINUANG)									
Palaquium luzoniense (NATO)									
Palaquium philippense (MALAK-MALAK)									
Pometia pinnata (MALUGAI)									
Sterculia philippenensis (BANILAD)									
Terminalia foetidissima (TALISAI GUBAT)									
Trema orientalis (ANABIONG)									
Xanthophyllum excelsum (BOK-BOK)									
Ziziphus talanai (BALAKAT)									

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

✓ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect 1 2 3 4 5 6 7 Significant Reduction

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important 1 2 3 4 5 6 7 Very Important

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective 1	2	3	4	5	6	Very Effective 7
Advertising campaign aimed at importers/industry	1	6 2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged 1	2	3	No Impact 4	5	6	Strongly Encouraged 7
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk		Medium Risk				High Risk
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ____ *Yes* ✓ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ____ *Yes* ✓ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			Reluctantly			Very Readily
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						Very Important
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

SUITABILITY FOR THE PURPOSE INTENDED.

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						Very Important
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Discussions with customers	1	2	3	4	5	6	7
Discussions with other manufacturers	1	2	3	4	5	6	7
Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

INDUSTRY JOURNALS

15. What percentage of your exports go: through a broker/agent? 75 %
direct to the final customer 25 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						Very Important
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
Customer recommendations	1	2	3	4	5	6	7
Company sales staff	1	2	3	4	5	6	7
Customer leads provided by the Dep't of Trade and Industry	1	2	3	4	5	6	7
New customers contacting you directly	1	2	3	4	5	6	7
Other: ____	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported 90 %
domestically sourced 10 %
domestic LUS ~~5~~ %

18. How many people are employed by your firm? 350

19. Where is your principal manufacturing operation located? CEBU.

(21)

Philippine Lesser-Used Species Utilization Survey

Section I. Strategic Responses to Tropical Hardwood Boycotts

1. Are you aware of the efforts by environmental groups to boycott unsustainably harvested tropical hardwoods?

   _✓_ Yes ____ No

2. How has the tropical hardwood boycott affected demand for your products?

No Effect						Significant Reduction
1	2	3	4	5	6	7

3. In your opinion, how important is the utilization of lesser-used species to sustainable forest management?

Not Important						Very Important
1	2	3	4	5	6	7

4. How effective do you feel each of the following marketing strategies would be in helping your firm respond to the tropical hardwood boycott?

	Not Effective						Very Effective
Advertising campaign aimed at importers/industry	1	2	3	4	5	6	7
Advertising campaign aimed at consumers	1	2	3	4	5	6	7
Reduce prices to stimulate demand	1	2	3	4	5	6	7
Export to less environmentally sensitive markets	1	2	3	4	5	6	7
Shift export focus to regional Asian markets	1	2	3	4	5	6	7
Shift focus to domestic markets	1	2	3	4	5	6	7
Shift product mix to higher value products	1	2	3	4	5	6	7
Increase the number of LUS utilized	1	2	3	4	5	6	7
Implement sustainable forest management	1	2	3	4	5	6	7
Cooperate with environmental groups	1	2	3	4	5	6	7
Develop a timber certification program	1	2	3	4	5	6	7
Use plantation species	1	2	3	4	5	6	7
Ignore the boycott	1	2	3	4	5	6	7

5. In your opinion, what impact have efforts by environmental groups had on the Philippine forest products industry with respect to the following factors?

	Strongly Discouraged			No Impact			Strongly Encouraged
Participation in industry associations	1	2	3	4	5	6	7
Capital investments in processing equipment	1	2	3	4	5	6	7
Capital investments in new manufacturing facilities	1	2	3	4	5	6	7
Development of value-added industry	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
International competitiveness	1	2	3	4	5	6	7
Increased utilization of lesser-known timber species	1	2	3	4	5	6	7
Increased utilization of imported timber	1	2	3	4	5	6	7
Increased utilization of non-wood forest products	1	2	3	4	5	6	7
Conversion of TLA's into IFMA's	1	2	3	4	5	6	7

20. Approximately what volume of products did you export to the following countries in 1995 (in cubic meters)?

Country	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Japan									
Korea									
UK									
USA									
Other:									
Other:									

21. Please estimate the volume of lesser-used species (cubic meters) that you used for each of the following product lines in 1995.

Species	Lumber	Furniture	Furniture Components	Doors	Joinery/ Millwork	Parquet Flooring	Mouldings	Veneer/ Plywood	Other:
Alstonia scholaris *(DITA)*									
Amoora aherniana *(KATO)*									
Celtis luzonica *(MAGABUYO)*									
Calophyllum blancoi *(BITANGHOL)*									
Diospyros inclusa *(ANANG-GUILOD)*									
Diospyros pyrrhocarpa *(ANANG)*									
Diplodiscus paniculatus *(BALOBO)*									
Duabanga moluccana *(LOKTOB)*									
Erythrina subumbrans *(RARANG)*									
Ficus balete *(BALETE)*									
Lithocarpus llanosii *(ULAYAN)*									
Macaranga tanarius *(BINUNGA)*									
Myristica philippinensis *(DUGUAN)*									
Nephelium mutabile *(KAPULASAN)*									
Octomeles sumatrana *(BINUANG)*									
Palaquium luzoniense *(NATO)*									
Palaquium philippense *(MALAK-MALAK)*									
Pometia pinnata *(MALUGAI)*									
Sterculia philippenensis *(BANILAD)*									
Terminalia foetidissima *(TALISAI GUBAT)*									
Trema orientalis *(ANABIONG)*									
Xanthophyllum excelsum *(BOK-BOK)*									
Ziziphus talanai *(BALAKAT)*									

6. In your opinion, what level of risk does each of the following factors pose for your firm at the present time?

	No Risk			*Medium Risk*			*High Risk*
Political environment	1	2	3	4	5	6	7
Confiscation/expropriation of property	1	2	3	4	5	6	7
Economic environment	1	2	3	4	5	6	7
Tropical hardwood boycotts	1	2	3	4	5	6	7
Accessibility of foreign exchange	1	2	3	4	5	6	7
Restrictions on repatriation of profits	1	2	3	4	5	6	7
Government policy regarding forests	1	2	3	4	5	6	7
Timber resource availability	1	2	3	4	5	6	7
Sustainable forest management	1	2	3	4	5	6	7
Timber certification/labeling programs	1	2	3	4	5	6	7
Forest concession policy	1	2	3	4	5	6	7

Section II. Marketing of Lesser-Used Timber Species

7. Does your firm currently process lesser-used timber species? ✓ *Yes* ____ *No*

8. Does your firm currently market LUS in the Philippines? ____ *Yes* ✓ *No*

9. Does your firm currently export lesser-used timber species? ✓ *Yes* ____ *No*

10. In general, how readily do your foreign and domestic customers accept lesser-used timber species?

	Not at all			*Reluctantly*			*Very Readily*
Foreign:	1	2	3	4	5	6	7
Domestic:	1	2	3	4	5	6	7

11. In your opinion, how important is each of the following factors in promoting market acceptance for lesser-used timber species from the Philippines?

	Not Important						*Very Important*
Availability of technical species information	1	2	3	4	5	6	7
Availability of long-term supply	1	2	3	4	5	6	7
Low initial trial price	1	2	3	4	5	6	7
Risk-free trial shipments	1	2	3	4	5	6	7
Money-back guarantees	1	2	3	4	5	6	7
Acceptance by influential trader/manufacturer	1	2	3	4	5	6	7
Ability to export small trial volumes	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

12. What factor do you feel is most important in promoting market acceptance for lesser-used timber species?

Comparable Quality + Competitive Price
Reliable supply

Section III. Acquisition of Market Information

13. How important are each of the following methods to your firm for acquiring market information?

	Not Important						*Very Important*
Department of Trade and Industry	1	2	3	4	5	6	7
Industry associations	1	2	3	4	5	6	7
Conduct our own market research	1	2	3	4	5	6	7
Hire an outside firm to conduct market research	1	2	3	4	5	6	7
Attendance at industry trade shows	1	2	3	4	5	6	7
Attendance at industry conferences	1	2	3	4	5	6	7
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Discussions with importers/agents	1	2	3	4	5	6	7
Industry association market intelligence reports	1	2	3	4	5	6	7
Industry journals	1	2	3	4	5	6	7
Internet (World Wide Web) connection	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

14. In your opinion, which of the above methods is the most important way to acquire market information?

15. What percentage of your exports go: through a broker/agent? 95 %
direct to the final customer 5 %

16. How important are the following methods to your firm for identifying new customer/market opportunities?

	Not Important						*Very Important*
Customer leads provided by an industry association	1	2	3	4	5	6	7
Customer leads provided by other manufacturers	1	2	3	4	5	6	7
Customer leads provided by importers/agents	1	2	3	4	5	6	7
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New customers contacting you directly	1	2	3	4	5	6	7
Other: ____________	1	2	3	4	5	6	7

Section IV. Company Demographics

17. What percentage of your wood raw material requirements are: imported ________ %
domestically sourced ________ %
domestic LUS ________ %

18. How many people are employed by your firm? ________

19. Where is your principal manufacturing operation located? ________