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FINAL TECHNICAL REPORT

TRAINING NEEDS ANALYSIS FOR THE BUILDERS' WOODWORKS INDUSTRY IN THE PHILIPPINES

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SUMMARY

A pre-project to determine the training needs of the builders' woodworks industry in the Philippines was conducted from August 2008 to October 2009. Specifically the pre-project aimed to: (1) determine the current level of skills and identify required standards for each position/level in the builders' woodworks industry; and (2) determine training needs of the builders' woodworks industry by identifying gaps between required standards and current skills level. At the end of the pre-project, a project proposal on capacity building to address the identified training needs shall be prepared and submitted.

Respondent firms were identified by using directories of builders' woodworks manufacturers from the regional/provincial offices of the Department of Trade and Industry (DTI) and the Department of Science and Technology (DOST). The survey was conducted in Regions I, II, III, IV-A, V, VI, VII and XIII. Respondents comprised of 103 firms and 106 firm workers.

The builders' woodworks industry was comprised mostly of single proprietorship micro and small enterprises with a capital of less than PhP 15 million (US $ 333,333) and a workforce of less than 100. A small percentage of the manufacturers were members of local associations of furniture producers or cooperatives. There was no single association for builders' woodworks manufacturers covered by this study.

Degree of mechanization was not high among the respondent firms. There was a predominant use of hand-held tools for wood processing and the use of fabricated or secondhand equipment was common. A few firms had invested in newer technologies like dry kilns, precision moisture meters and spray booths for finishing but most still relied on sun drying of lumber and finishing in open areas.

Workers in the industry were predominantly male, around 38 years old, high school graduates and acquired their skills through experience. Some shops employed women to perform certain tasks such as sanding and application of finishes. Most jobs were on a contract basis, with one worker doing everything from raw material preparation to assembly. Finishing and carving were also contracted out on a per piece basis.

There were no documented work procedures or quality control standards in smaller firms. The owner usually served as the production manager and quality control inspector, performing quality control in every phase of production. Standards for dimensions were followed. Likewise, there were very few safety measures implemented in the workplace. Wastes such as sawdusts, shavings and trimmings were not regularly disposed of and most shops were fire-hazards. Protective gadgets such as masks and goggles were provided for workers but they were seldom used, if ever.

Since the industry was made up mostly of micro and small enterprises, most workers in the industry did not have formal training. Their skills were acquired usually through experience or from peers within the firm. Most respondents felt that they did not have the skills needed to perform the tasks assigned to them. Their current skills included basic carpentry, joinery, assembly and finishing. However, almost all the firms realized the urgency to develop production techniques and were willing to send their workers to future training courses.

Training needs identified by both management and workers were on: (1) operation and maintenance of wood working machines; (2) finishing; (3) jointing or joint construction and assembly; (4) carpentry; (5) glue lamination; (6) design and manufacture of jigs; (7) safety measures; and (8) mixed media construction. On the other hand, training needs identified by management were more on managerial skills development such as bookkeeping, accounting and enterprise management. Management respondents also indicated their need for refresher courses on the production aspects of the business, i.e. on wood drying, finishing and operation and maintenance of wood working machines.

Based on the standards formulated, training courses being recommended to be implemented in the capacity building project are on: (1) 5S Program; (2) Machine design; (3) Design and manufacture of jigs; (4) Operation and maintenance of wood working machines; (5) Finishing; (6) Assembly/jointing techniques; (7) Drying of wood; (8) Materials handling; and (9) Refresher courses on wood processing and kiln dryer operations.

INTRODUCTION

Builders' woodworks, or in trade, builders' joinery and carpentry of wood, include doors and windows and their frames, jambs or thresholds, parquet or tiles, and joiner and carpentry, such as balusters and mouldings. These wood products have two purposes: as essential components of the house and as creative designs or works of art for residential and contract applications (PCARRD, 1999). Builders' woodwork is one of the categories under which secondary processed wood products (SPWP) are classified, aside from wooden furniture and parts; mouldings; cane and bamboo furniture and parts; and other SPWP (packing, boxes and the like; casks, barrels, vats and other cooper's products; picture frames, table/kitchenware and other tools, handles, brooms and other manufactured products) (ITTO, 2004). In 2005, the Philippines' export of builders' woodworks numbered to about 62,230,714 units, equivalent to US $ 107.5 million. That same year, the country ranked 22 out of the 66 world suppliers of builders' woodworks products (Cabangon et al, 2009).

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

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

However, before any technical assistance program for the builders' woodworks industry can be implemented, an analysis of the industry's needs should be done first. While training is considered as necessary to maximize the potentials of an organization's workforce, it is not the end-all solution to the organization's problems. For training to be effective, there is the need for a needs analysis or a training needs analysis/assessment (TNA).

Training needs analysis is defined as a process of gathering and interpreting data for identifying performance problems and solutions (Broadbent and Froidevaux, 2009). It is also defined as a systematic process for identifying an organization's crucial learning needs (http://www.psbcorp.com). Swist (http://www.amxi.com) identified

the first step in the performance improvement process as the training needs assessment. She further defines *need* as the gap between "what is" and "what ought to be". The needs assessment serves to identify the gaps and considers if the organization's problems can be solved by training. The assessment is part of a planning process focusing on identifying and solving performance problems. Its primary purpose is to ensure that there is a need for training and to identify the nature of the content of the training program. Training analysis looks at each aspect of an operational domain so that the initial skills, concepts and attitudes of the human elements of a system can be effectively identified and appropriate training can be specified (http://en.wikipedia.org).

Training needs analysis as a process often covers the following: (a) review of current training; (b) task analysis of the new or modified system; (c) identification of training gap; (d) statement of training requirement; (e) assessment of training options; and (f) cost benefit analysis of training options (http://en.wikipedia.org).

The job and task analysis is an important part of the TNA process since it sets the standards for how a job is to be performed. A job consists of responsibilities, duties and tasks that are defined and can be accomplished, measured and rated while a task is a well-defined unit of work that stands by itself and is a logical and necessary action in the performance of a job or duty (http://www.nwlink.com). Skills, knowledge and attitudes (SKA) are needed to perform a task. The current level of skills, knowledge and attitudes of an employee are measured against a standard to be able to come up with the training gap or need.

There have been a number of TNAs conducted for the forest-based industries in the Philippines, particularly at the Forest Products Research and Development Institute (FPRDI). FPRDI has implemented in 1989 and is continually implementing a project entitled *Training Needs Assessment for the Forest-Based and Allied Industries* which aims to identify gaps in knowledge/skills among the manpower complement of selected forest products based industries and identify relevant areas for manpower training vis-à-vis available FPRDI developed/improved technologies. To date, TNA for several forest-based industry associations have been conducted, particularly for the furniture and handicraft industries nationwide and a guitar makers association.

In 2003, a project entitled *A Study on the Cebu Furniture Industry*: *A Basis for Manpower Development Program* was conducted by FPRDI and the Cebu Furniture Industries Foundation Inc. (CFIFI) to: (a) determine the present level of skills in the industry; (b) identify gaps between the present level of skills and the ideal/standards; (c) come up with a profile of the Cebu furniture industry; and (d) identify possible areas for basic skills and skills upgrading program. At that time, the Technical Education and Skills Development Authority (TESDA), a government agency tasked with establishing a quality-assured Technical Vocational Education and Training system, was in the process of developing an Occupational Qualification and Certification System for workers in the furniture industry. In the absence of these standards, the project was limited to identifying the current level of SKAs of the workers of CFIFI member firms. One of the recommendations of the project was the

putting in place of standards for specific processes for training needs analysis to be effective.

An earlier TNA conducted by a private consulting firm in 2000 for CFIFI recommended a long range training masterplan which include, among others, the standardization of training programs and the creation of a Furniture Industry Training Board which shall be tasked with determining the training needs of the industry. Skive Technical Institute of Denmark also conducted a study entitled *Critical Manpower Requirements of the Wood Furniture Industry* in 1996 for the Chamber of Furniture Industries of the Philippines (CFIP). The said study was the second component of the training assistance project for the Furniture Industry Board Foundation, Inc. and dealt with the identification of the critical manpower requirements of the furniture industry in relation to acknowledged skill standards for a workforce in modern furniture companies serving the major international furniture markets.

Aside from the survey conducted by FPRDI for a builders' woodworks association in 2001, no other study has been done to document the training needs of the builders' woodworks industry in the Philippines.

A pre-project titled '*Training Needs Analysis for the Builders' Woodworks Industry in the Philippines'*, designated as ITTO PPD 133/07 Rev. 1(I), was implemented in August 2008 by FPRDI to address this concern. The pre-project was conceptualized to assess the viability of implementing a capacity building program for the industry, with emphasis on determining the training needs of the target sector through a gap analysis of the current situation. Specifically, the pre-project had the following objectives:

1. To determine the current level of skills and identify required standards for each position/level in the builders' woodworks industry; and
2. To determine training needs of the builders' woodworks industry by identifying gaps between required standards and current skills level.

APPLIED METHODOLOGY

To achieve the pre-project's objectives, the following activities were carried out:

- Target firms and/or industry associations that served as respondents to the survey were identified by obtaining directories of builders' woodworks manufacturers from the regional/provincial offices of the Department of Trade and Industry (DTI) and the Department of Science and Technology (DOST). Geographical distribution of the firms, as well as capitalization, work force and market outlets, were considered in drawing up the sample size, i.e. all the major islands of the Philippines were represented in the sampling list. A sample size of 100 firms was targeted.

- A questionnaire that will assist the pre-project get information on the position/jobs and actual work performed by workers in the builders' woodworks industry was prepared and pre-tested in a builders' woodworks firm in Taytay, Rizal, a town which has a thriving builders' woodworks industry. The questionnaire developed for the pre-project is shown in Annex A.

- Survey was conducted in Regions I, II, III, IV-A, V in the island of Luzon; VI and VII in the Visayas and XIII in Mindanao.

- A parallel activity carried out was the formulation of standards for each position/level in the builders' woodworks industry thru a job and task analysis. The job analysis dealt with the identification of duties and tasks required for each position while the task analysis dealt with the breakdown of each task into component steps, specifically safety elements, standards in knowledge, attitudes, skills and habits. Available materials on job and task analysis for workers in the builders' woodworks industry were collated and reviewed to assist the pre-project in coming up with the standards. The standards were formulated in consultation with the National Experts and Consultants.

- Training needs for the workers in the builders' woodworks industry were identified by comparing the current skills levels against the standards based on the job and task analysis. Non-training activities that can be conducted to help improve the industry were also identified.

- The training needs identified were presented to the respondents to validate the findings of the pre-project.

- Based on the training needs identified, a project proposal on capacity building for the builders' woodworks industry was prepared.

RESULTS AND DISCUSSION

1.0 Industry Profile

Respondents comprised of 103 firms and 106 firm workers. List of respondents from management and workers of the firms are given in Annexes B and C.

Profile of Management Respondents

More than half (83.5%) of the management respondents were male, married (92 or 89%) with an average of 4 children each. Only a third (32 or 31%) of the respondents were college graduates. Almost all (81%) of the management respondents were the firms' proprietor cum manager.

Profile of Firms

Classification of Firms

Almost all of the respondent firms (95% or 98 firms) were micro enterprises, with capitalization of less than ₱ 3 million (US $ 66,667). The very high figure, incidentally, is consistent with the average for micro-level operations in other industry sectors such as furniture and handicraft in the Philippines. Four firms were classified as small enterprises, having assets of between ₱ 3 million to ₱ 15 million while one was classified as a medium-sized firm (capitalization of ₱ 15,000,001 to ₱ 100 million or US $ 333,333 to US $ 2.22 million). In terms of organization, 100 (97%) of the firms surveyed were single proprietorship, with only two (2%) firms registered as family corporations; one respondent was a cooperative of differently-abled persons. A little more than half (58 firms or 56%) of the firms were registered with the Treasurer's office of the municipality where they are located and have a Mayor's permit to operate, a requirement for businesses in the Philippines. Apparently, in some areas, this requirement is only loosely implemented as a way of encouraging and supporting development of livelihood options in the countryside.

Age of Firms

The builders' woodworks industry in the Philippines may be considered an established industry since only 43 or 41% of the firms were put up within the last decade with the remaining 58% between 1960 and 1999. Eighty nine percent of the firms were new industry players being first generation firms (established by owner) while there were only 9 second generation firms (established by the current owner's parents) and 2 third generation firms (established by the current owner's grandparents).

Membership in Associations

A little more than half of the respondents (52%) were not members of any industry association, with only roughly 4% of the firms members of the Chamber of Furniture Industries of the Philippines, the national association of furniture manufacturers in the Philippines. Twenty four firms (23%) were members of local associations of furniture producers or cooperatives; one respondent was a member of the National Federation of Cooperatives of Disabled Persons.

Product Lines

All of the firms surveyed produced wooden doors, either flush or panel doors. There was no firm that produced doors or other builders' woodworks only. Builders' woodworks were produced together with different furniture pieces, such as tables, chairs and beds. More than half of the respondents produced door jambs; other items produced were balusters, windows, window jambs, cabinet handles, stairs, mouldings and other similar products (Table 1).

Engagement in product mix appeared to be a general practice among the respondents. This is a way by which small producers can maintain and sustain their business operations. They have to be versatile, flexible and creative if their means of livelihood is to get going.

Table 1. Product Lines

Product	No. of Firms	%	Product	No. of Firms	%
Balusters	47	46	Lumber	1	1
Billiard table	1	1	Louvers/jalousies	2	2
Cabinet handles	5	5	Mouldings	32	31
Cabinets	45	44	Pallets	2	2
Chairs	9	9	Stairs	16	16
Dividers	1	1	Turned products	2	2
Door jambs	76	74	School furniture	5	5
Doors	103	100	Window casings	1	1
Flooring	1	1	Window jambs	36	35
Furniture	72	70	Windows	50	48
Hand rails	4	4	Wood tiles	14	14

Raw Materials Used

In the Philippines, quality doors are usually synonymous with doors made out of narra (*Pterocarpus indicus* Willd. forma *indicus*). With the ban on cutting of virgin forests, particularly the premium species such as narra and the Philippine Mahogany Group (*Shorea, Parashorea* and *Pentacme* genera), there is a shift towards the use of fast-growing, industrial tree plantation species most popular of which are gmelina

(*Gmelina arborea* Roxb.) and mahogany (*Swietenia macrophylla* King). The use of second hand lumber or lumber from old houses is also gaining popularity (Table 2).

Table 2. Raw Materials Used

Species	Number	%
Gmelina/Melina/Yemane (*Gmelina arborea* Roxb.)	52	50
Lauan (*Shorea negrosensis* Foxw. or *Shorea contorta* Vidal)	26	25
Mahogany (*Swietenia macrophylla* King)	26	25
Molave (*Vitex parviflora* Juss.)	10	10
Narra (*Pterocarpus indicus* Willd. forma *indicus*)	46	45
Plywood	48	47
Second hand lumber	10	10
Tangile [*Shorea polysperma* (Blanco) Merr.]	30	29
Yakal (*Shorea astylosa* Foxw.)	12	12
Other *Dipterocarpus* species	34	33
Other species [pine wood, kamagong (*Diospyros discolor* Willd.), mangium (*Acacia mangium* Willd.),teak (*Tectona grandis* L. *f.*), bagras (*Eucalyptus deglupta* Blume), acacia (*Samanea saman* {Jacq.} Merr.), ipil (*Intsia bijuga* {Colebr.} O. Kuntze)]	20	19

Capital and Assets

Floor area of plant/factory of respondents ranged from 15 to 10,000 square meters (average = 533 square meters). Shops of more than half of the respondents were open sheds made from wood (51%) with dirt floors (45%) and roofs of galvanized iron (59%). Cost of these buildings ranged from a low of PhP 3,000.00 (US $ 67) to PhP 6 million (US $ 133,333) for 4 buildings in one compound.

Tables 3 presents the respondents' capitalization, both initial and current. Not all firms gave information on their capitalization. This table reinforces the pre-project's assumption that most of the builders' woodworks manufacturers in the Philippines belong to the micro-small category in terms of capitalization.

Gross sales per annum ranged from PhP 40,000 (US $ 889) to PhP 44 million (US $ 977,778), with 3 firms selling over PhP 15 million (US $ 333,333) per year and 13 firms selling between PhP 1 to 3 million (US $ 22,222 to 66,667) annually. More than half (55%) of the firms did not indicate their gross sales per annum.

On sources of financing, 55 of the firms (53%) did not indicate where their sources were. A quarter of the firms (26 firms or 25%) used their personal savings for their initial capital; others either took out a bank loan (5%), used the customer's down payment (4%), borrowed from friends or relatives through informal financing

agreements (9%), pawned property (1%) or were recipients of government grants (2%).

Table 3. Capitalization and gross sales per annum

Amount (PhP)	Initial Working Capital		Current Working Capital		Gross sales per annum	
	Number of firms	%	Number of firms	%	Number of firms	%
Less than 1,000	2	2	-	-	-	-
1,001 – 10,000	18	17	-	-	-	-
10,001 – 20,000	16	16	-	-	-	-
20,001 – 30,000	6	6	1	1	-	-
30,001 – 40,000	3	3	-	-	1	1
40,001 – 50,000	8	8	2	2	1	1
50,001 – 60,000	-	-	-	-	1	1
60,001 – 70,000	1	1	-	-	-	-
70,001 – 80,000	1	1	-	-	1	1
80,001 – 90,000	3	3	-	-	-	-
90,001 – 100,000	5	5	3	3	1	1
100,001 – 200,000	6	6	7	7	4	4
200,001 – 300,000	2	2	2	2	1	1
300,001 – 400,000	1	1	3	3	1	1
400,001 – 500,000	1	1	2	2	4	4
500,001 – 600,000	-	-	-	-	2	2
600,001 – 700,000	1	1	1	1	-	-
700,001 – 800,000	-	-	-	-	6	6
800,001 – 900,000	-	-	-	-	1	1
900,001 – 1,000,000	-	-	5	5	-	-
1,000,001 – 3,000,000	-	-	2	2	13	13
3,000,001 – 15,000,000	-	-	4	4	6	6
over 15 million	-	-	1	1	3	3
No answer	29	28	33	32	57	55

Levels of Technology and Mechanization

The respondent firms, being micro and small firms, were not highly mechanized. Most firms were equipped with basic wood working machineries/equipment like the circular saw, radial arm saw, drill press, ordinary wood lathe, table saw and thickness planer Table 4). Almost all of the firms surveyed used portable tools in their production. Only 14% of the respondents have lumber dryers, a necessary equipment to produce quality wood products.

Investment in equipment of the respondent firms varied from PhP 2,000.00 (US $ 44,444) to PhP 5 million (US $ 111,111) (average = PhP 476,771 or US $ 10,595)

Table 4. Machines/Equipment Used

Equipment/Machine	No. of Firms	%
3-in-1 jointer/planer/table saw	1	1
5-head planer molder	1	1
6-head planer molder	1	1
Angle grinder	6	6
Air compressor	40	39
Bandsaw blade welding	2	2
Band saw	77	75
Band saw, fabricated	11	11
Belt sander	2	2
Centralized dust collector	1	1
Circular saw, fabricated	2	2
Circular saw with sliding table/panel saw	60	58
Clamp carrier/Taylor, fabricated	1	1
Compressor	16	16
Copy lathe	1	1
Cross cut saw, pendulum type	3	3
Cut-off or radial arm saw	25	24
Cut-off or radial arm saw, fabricated	3	3
Disc sander	6	6
Disc sander, fabricated	2	2
Drill	2	2
Drill press	40	39
Drill press, fabricated	9	9
Drum sander	2	2
Hand tools	2	2
Horizontal boring machine	1	2
Horizontal drill press, fabricated	1	2
Hydraulic hot press	1	2
Hydraulic press for door	1	2
Jigsaw	2	2
Jointer	4	4
Jointer, fabricated	2	2
Lumber dryer	15	14
Mini sander	1	1
Mini sawmill	2	2
Miter saw	2	2
Mortiser/double-end mortising machine	17	16
Mortiser/double-end mortising machine, fabricated	1	1
Orbital sander	1	1
Ordinary wood lathe	26	25
Ordinary wood lathe, fabricated	4	4
Ordinary wood lathe, fabricated	4	4
Oscillating belt sander	2	2

Table 4. Machines/Equipment Used (continued)

Equipment/Machine	No. of Firms	%
Overhead router	8	8
Planer	3	3
Planer jointer, fabricated	10	10
Planer knife sharpener	1	1
Portable angle grinder	7	7
Portable chain saw	2	2
Portable circular saw	1	1
Portable drill	7	7
Portable jig saw	1	1
Portable miter saw	1	1
Portable planer	19	18
Portable router	19	18
Portable sander	10	10
Portable saw	1	`1
Portable thickness planer	1	1
Portable tools	61	59
Sander	1	1
Shaper/spindle molder	11	11
Shaper/spindle molder, fabricated	2	2
Sharpening machine	2	2
Spray booth	2	2
Stroke sander	1	1
Surface planer jointer	42	41
Table saw	45	44
Table saw, fabricated	60	58
Table saw with sliding table	1	1
Tenoner	8	8
Thickness planer	65	63
Universal grinder	3	3
Wide belt sander	3	3
Wood bending machine	1	1

Manpower

Respondent firms employed from 1 to 20 workers, with an average of 6 workers per firm, generally on a contractual basis, with only two (2) firms having regular employees. Workers were paid either on a daily or per piece basis. Daily rates ranged from PhP 180.00 for workers who were just starting out in the industry to PhP 200.00 (US $ 4.44) to PhP 600.00 (US $ 13.33) (average = PhP 305.00 or US $ 6.78) for skilled workers. On a per piece basis, workers were paid PhP 2500.00 (US $ 55.56) to PhP 8,000.00 (US $ 177.78) (average = PhP 892.00 or US $ 19.82) per door

produced; it normally took a worker 1 to 2 days to finish a panel door. Workers tasked with finishing were paid from PhP 95.00 (US $ 2.11) to PhP 500.00 (US $ 11.11) (average = PhP 228.00 or US $ 5.07) per door.

Generally, workers were hired through referrals from within the industry. Firms tended to hire relatives of the owner or of current workers in the firm. Only 1% of the firms surveyed recruited workers by posting advertisements/notices.

Almost half of the respondents (50 or 48%) did not have minimum preferences in hiring workers. Thirty eight (37%) of the firms indicated skills level as a requisite in hiring of workers; other preferences included work experience (16%), character traits (8%) and gender (4%). Educational attainment of the worker was not a factor in hiring (Table 5).

Table 5. Minimum preferences in hiring workers

	No. of Firms	**%**
Level of skills	38	37
Work experience	16	16
Character traits	8	8
Gender	4	4
Residence	2	2
Trainings	2	2
Good health	1	1
Education	0	-
None	50	48

Worker turnover was low, with an average of 2 workers leaving the firm, either to work abroad or to put up their own shops.

More than half (61%) of the firms did not conduct any in-house or on-the-job trainings for its workers since the owners felt that their workers had the necessary skills and experience to do the job. As such, training needs of workers were not determined on a regular basis. Owners usually adopted a mentoring system wherein newly hired unskilled workers were placed under the tutelage of more senior workers or started out as helpers or sanders. Only 11 firms have sent their workers to trainings conducted outside the factory or by other organizations; however all respondents were open to the idea of sending their workers or themselves to future training courses that may be conducted within their locality.

Markets

All of the respondents catered to the domestic market, with only 3 firms (3%) "exporting" their products to Saudi Arabia, Canada, Hawaii, Guam, France and Australia in the past years. These exports were normally one or two pieces of doors

which customers ordered locally and shipped abroad to friends or for their own houses being constructed abroad. All of the firms got orders from walk-in customers which were either repeat customers (15%) or referrals from other customers (27%). A little less than a quarter of the firms (23%) got orders from engineers/architects or contractors of housing projects (Table 6).

Table 6. Marketing Techniques

Marketing Technique	No. of Firms	%
Walk-in	79	77
Repeat orders	16	16
Referrals	28	27
Same province	42	41
Same region	13	13
Outside province	41	40
With display room/store	8	8
Advertisement/dissemination of calling cards	7	7
Engineers/architects/contractors	24	23
Consignment in home depots/shops	4	4
Participation in trade fairs/exhibits	9	9
Construction projects	8	8
Agents	6	6
Export (Saudi, Canada, Hawaii, Guam, France, Australia)	3	3

Product Pricing

In terms of product pricing, prices varied depending on several factors such as the raw material used, design, finish, size and kind, i.e. panel or flush door. Standard sizes of doors are: 50 mm thick by 2100 mm high, with widths of 600 mm, 700 mm, 800 mm, 900 mm or 1000 mm. For purposes of the pre-project, product prices were based on the standard size of 50 mm x 800 mm x 2100 mm.

Flush doors, i.e., doors made of wooden frames with plywood or composite panel boards as cladding, were priced at PhP 1,000.00 (US $ 22.22) to PhP 1,450.00 (US $ 32.22) per piece. This type of door is normally used for interior purposes only.

On the other hand, panel or solid doors were either sold with finish or sanded finished. Prices of sanded finished panel doors ranged from PhP 700.00 (US $ 15.56) to PhP 7,000.00 (US $ 155.56) (average = PhP 3,638.00 or US $ 80.84), with most firms selling sanded finished doors at PhP 3,000.00 (US $ 66.67); the prices of varnished or finished panel doors ranged from PhP 3,000.00 (US $ 66.67) to PhP 11,000.00 (US $ 244.44) (average = PhP 6,722.00 or US $ 149.38). Panel doors with carvings on one side cost PhP 4,100.00 (US $ 91.11) to PhP 12,000.00 (US $ 266.67) (average = PhP 6,962.00 or US $ 154.71) while doors with carvings on both sides cost PhP 8,000.00 (US $ 177.77) to PhP 13,000.00 (US $ 288.89). Panel doors made from

narra (*Pterocarpus indicus*) ranged from PhP 4,000.00 (US $ 88.89) for sanded finish doors to PhP 12,000.00 (US $ 266.67) for carved panel doors.

Prices of other woodworks were as follows: PhP 350.00 (US $ 7.78) for balusters; PhP 3,060.00 (US $ 68) for railings; and PhP 900.00 (US $ 20) to PhP 2,000.00 (US $ 44.44) for jambs.

Product pricing was based on the cost of raw material, electricity, labor, parts and supplies and mark-up (Table 7). Cost of raw materials ranged from 5% to 85% of the total cost of a product (average = 40.41%) while labor cost accounted for 3% to 7% (average = 20.24%). Electricity and parts and supplies contributed 1% to 33% (average = 12.7%) and 3% to 60% (average = 12.9%), respectively, to the total cost. Mark-up or profit ranged from 1% to 65% (average = 28.24 %).

Prices were normally determined by the owner, often times not considering the price set by competition. With the influx of cheaper imported builders' woodworks in the market, respondents were forced to bring down their prices to sustain their operations. Instead of an aggressive marketing program some firms used agents as a marketing strategy; the prices of the products were also influenced by these agents, with the agents getting a minimum of 5% of the cost of the product as finder's fee.

Market Information and Problems

Respondents sourced their information on new technologies and trends in the industry through magazines/trade journals (52%), customers (18%), product catalogues/brochures (17%) and the Internet (3%). Only 2 respondents used trade shows as a venue for sourcing the latest trends on the industry; tapping of consultants as sources of information is still an option that has to be explored by the industry since only one respondent has done so.

The concept of establishing one's niche in the industry is also an area still to be explored by the respondents. Only 11% of the respondents were able to identify what the firm does well and sets it apart from its competitors. Among the responses on what sets a firm apart from its competitors are the following: compliance with regulatory and documentary requirements set by the government; sustainable supply of raw materials; design; quality workmanship; on-time delivery of goods; reasonable prices; and warranty/guarantee offered.

No efforts were being made by almost all (93%) of the respondents to find and create a competitive advantage and identify changes that threaten their business. For respondents who did, the competitive advantage was achieved by ensuring that they only sold quality products, replacing or repairing defective products and giving discounts to repeat orders.

Marketing information were not generated and used to determine what their competitors were doing that may result in the loss of clients.

Table 7. Cost of inputs as percentage of total product cost

Raw material		Electricity		Labor		Parts and supplies		Mark-up	
%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms
5	1	1	1	3	2	0	1	1	1
8	1	2	2	7	2	3	3	3	2
11	1	3	3	8	1	5	4	6	2
12	1	5	1	9	4	6	1	7	2
14	1	8	2	10	3	7	2	8	1
15	1	10	2	11	3	8	3	10	3
17	2	15	1	12	3	9	1	11	1
18	2	24	1	12.5	2	10	3	12	1
19	2	27	1	13	5	11	2	13	1
20	2	30	1	14	1	12	2	15	3
21	2	32	1	15	4	17	2	16	3
23	2	33	1	16	1	18	1	18	1
24	3			17	3	19	1	20	3
25	1			18	3	21	1	21	2
26	2			18.5	1	22	1	25	2
27	5			20	7	24	1	27	2
28	1			21	1	25	1	28	2
30	5			22	1	32	1	30	7
31	2			23	3	60	1	32	1
33	3			24	2			33	3
37	1			25	5			34	3
40	3			26	1			36	1
42	2			27	1			38	1
43	1			28	1			39.2	1
46	1			30	5			40	1
47	1			32	1			41	1
48	2			33	2			42	1
49	1			35	1			43	1
50	4			40	1			44	1
51	2			45	1			47	3
53	1			47	1			48	1
55	1			53	1			49	2
56	2			57	1			50	3
60	4							57	1
62	1							59	1
63	1							65	1
65	1								
66	1								
70	7								
73	1								
80	1								
81	1								
85	1								

Quality Assurance System

There were no written quality standards or documents for a quality assurance system implemented/followed by the respondents. All of the firms checked the quality of the product at every stage of the production, from selection of the material to be used, to making sure that dimensions of the product follow standards and checking the quality of the finish. The owner usually served as the quality inspector; in most firms, the workers were also tasked with checking the quality of their own work.

Quality consciousness was promoted among the workers through constant communication and meetings to discuss quality control issues. Workers were often asked to repeat work on a particular product which was not up to par. Products were inspected before delivery to ensure that dimensions were correct, joints properly constructed and finished according to the customer's specifications. As part of the quality assurance system, lifetime guarantees were usually given on the products manufactured. Defective products were usually repaired or replaced.

Around 19% of the firms stated that they encountered product rejects, ranging from 1 to 15% of the products sold. Product rejects were attributed mainly to improperly dried wood such as warping and loosening of joints (50%) and attack of insects and molds (5%). Other causes of product rejects were finishing defects, incorrect dimensions and poor construction (Table 8).

Table 8. Nature/causes of product rejects

Nature/Cause of Product Rejects	No. of Firms	%
Drying related problems	51	50
Finishing defects	7	7
Attack of insects/molds	5	5
Dimensions not according to specifications	2	2
Handling/packaging	2	2
Poor construction	1	1
Change in design	1	1

System for measuring yield

A system for measuring yield was not in place in 98% of the respondent firms; only 2 firms kept records on production down time, efficiency of production equipment and facilities and percentage defects/rejects. Nature and frequencies of downtimes

were not recorded. This may be attributed to the fact that respondents were micro-small enterprises whose main concern was sustaining their day to day operations.

Customer Satisfaction

Although only 5% of the respondents had a means for measuring customer satisfaction, the respondents measured customer satisfaction thru repeat orders.

E-commerce

For the respondents, the use of computers for business was confined mostly to preparation of reports, sending of emails to suppliers and some customers and for one respondent, for bookkeeping.

Safety

Respondents provided their workers with the necessary safety gears such as dust masks and gloves but these were not used by the workers. Other safety policies included no smoking in the work area, use of proper attires, not allowing workers to work when drunk or with hang-overs and provision of fire extinguishers and first aid kits in the work area. Newly hired workers were also not allowed to operate equipment/machines without supervision.

Maintenance

Ninety four(91%) of the respondent firms did not have any maintenance program. Of the nine firms which had a maintenance program, maintenance checks were done once a week by either the owner or maintenance people.

For the firms which had no maintenance program, maintenance work was usually done by the workers themselves whenever the machine broke down or when problems with the machines occurred. Skills in maintenance were obtained thru experience.

Profile of Workers

There were 106 worker respondents, 104 or 98% of which were male, married (82%), with an average of 3 children per family and with ages ranging from 17 to 70 years old, with almost a quarter of them within the 40 – 44 years old bracket. Average age of workers was 38.27 years (Table 9, 10 and 11).

Table 9. Civil status of workers

Civil Status	No. of Workers	%
Single	18	17
Married	87	82
Widow/Widower	1	1
Total	106	100

Table 10. Age distribution of workers

Age Bracket	No. of Workers	%	Age Bracket	No. of Workers	%
15 – 19	2	2	45 – 49	15	14
20 – 24	6	6	50 – 54	7	7
25 – 29	18	17	55 – 59	4	4
30 – 34	15	14	60 – 64	1	1
35 – 39	14	13	65 – 69	0	-
40 – 44	23	22	70 - 74	1	1

Table 11. No. of children per family

No. of Children	No. of Workers	%	No. of Children	No. of Workers	%
None	3		6	7	
1	8		7	2	
2	24		8	2	
3	21		9	4	
4	12				
5	7		Average	3	

Most of the respondents (45%) were high school graduates, with only 3% of the respondents having college degrees (Table 12). More than half (70%) of the workers have not attended any training related to his job.

Table 12. Educational attainment of workers

Educational Attainment	No. of Workers	%
College graduate	3	3
College undergraduate	9	8
Vocational school graduate	8	8
High school graduate	48	45
High school undergraduate	16	15
Elementary school graduate	15	14
Elementary undergraduate	4	4

More than half of the respondents (53%) were usually paid on a per piece basis and stayed at a firm for 1 to 4 years (Table 13). Workers tended to transfer to other firms because of the availability of jobs or marriage. Sixty one (58%) of the respondents transferred from one firm to another in the same town or province, usually by applying directly to the firm's owner (48%), thru recommendations from friends or relatives (35%) or thru recruitment by the owner (17%).

Table 13. Number of years at present employment

No. of Years	No. of Workers	%	No. of Years	No. of Workers	%
Less than 1 month	13	12	15 - 19	9	8
Less than 1 year	8	8	20 – 24	3	3
1 – 4	31	29	25 - 29	1	1
5 – 9	24	23			
10 – 14	17	16	Average	7.3 years	

Workers received the following benefits at work: free meals (45%), allowances/incentives (6%), housing (8%), educational assistance (4%) and loans (3%) (Table 14). Permanent/regular workers also received other benefits as mandated by Philippine labor laws. Twenty four (23%) of the respondents did not receive any benefits. Being small or very small, some firms could be enjoying exemptions to compliance to statutory regulations.

Table 14. Benefits received at work

Benefits	No. of Workers	%	Benefits	No. of Workers	%
Allowances/incentives	6	6	Appliance loan	3	3
Housing	9	8	Social security[a]	29	27
Free meals	48	45	Philhealth[a]	10	9
Loans	3	3	Pag-ibig Fund[a]	4	4
Educational assistance	4	4	None	24	23

[a] Benefits given to permanent/regular workers as mandated by Philippine labor laws

Workers' opinions on several issues were also solicited by the pre-project. Tables 15 to 17 show the responses of the workers. Table 15 shows the number of workers satisfied with their job as characterized by several parameters. Almost all (91%) of the workers were satisfied with their work in general, with 83% satisfied with their working conditions. There was low worker satisfaction in terms of the availability of technology which can be used by both genders (7%), gender equality (9%) and promotion (15%).

Table 15. Job satisfaction

Characteristic	**No. of Satisfied Workers**	**%**
On work satisfaction	96	91
Working condition	88	83
Relations with co-workers	94	89
Security of tenure	30	28
Employee/Worker's benefit	57	54
Technology can be used by both genders	7	7
Safety measures	64	60
Promotion	16	15
Salary	67	63
Relations with supervisors/management	91	86
Gender equality	10	9

Table 16, on the other hand, shows worker responses on gender-related issues. Almost all of the respondents disagree with all of the statements regarding gender-related issues, from wages to equal work opportunities.

Table 16. Gender-related issues

Statement	Agree	Disagree
There is a disparity of wages among men and women workers	3	103
Men and women are given equal opportunities in the industry	6	100
Hiring on a contractual basis is not dependent on gender	5	101
Technologies/facilities are gender sensitive	3	103
Child rearing/household tasks limit the participation of both male and female workers in the industry	5	101
Skills and technical trainings are available for both men and women	4	102
There is no disparity in working hours and wages for both men and women	5	101
Men and women receive the same benefits at work	5	101
Employment marginalization is encountered by both male and female workers	4	102
Reproductive roles affect women's performance at work	4	102

On the other hand, a little more than 1/8 of the respondents (17%) identified inadequate facilities and equipment as the major work-related problem. Other problems identified were the lack of skills trainings (15%), work hazards and working conditions (8%), salary (7%), working relationship with co-workers (4%), lack of safety measures (3%), delayed deliveries (3%), overtime incentives and back jobs (1%).

Needs/interests that workers felt should be addressed include skills upgrading (40%), upgrading of facilities/equipment (24%), better housekeeping (9%), bigger work area (4%) and regular equipment maintenance (3%), among others (Table 17).

Table 17. Worker needs/interests to be addressed

Needs/Interests of Workers	No. of Responses	%
Skills upgrading	42	40
Upgrading of equipment/facilities	26	24
Better housekeeping	10	9
Bigger work area	4	4
Regular equipment maintenance	3	3
Organize cooperative	3	3
Proper compensation	2	2
Unity between workers	2	2
Additional manpower	1	1
Labor turn-over	1	1

2.0 Inventory of Existing Positions in the Builders' Woodworks Industry

Existing Positions in the Builders' Woodworks Industry

An inventory of existing positions in the builders' woodworks industry was done to determine the actual work done for each position identified. Although workers in the industry were contracted on a per piece basis, the following positions were identified for the cottage, micro, small, medium and large industries. Table 18 shows the different positions for the rank and file in the builders' woodworks industry.

The owner usually took on multiple positions in a cottage- and micro-scale enterprise, functioning as the foreman/supervisor/lead man and quality control officer in most instances. The position of material sorter and quality control officer was normally found only in small- to large-scale enterprises. Maintenance personnel were on-call for cottage to small-scale enterprises, i.e. their services were tapped as the need arises. Common positions from the cottage to large-scale enterprises were machine operators for basic wood working machines, carpenters/assemblers and workers engaged in finishing – sanders and finishers. Operators of advanced wood working machines were normally found in medium and large-scale enterprises.

Table 18. Rank and File Positions in the Builders' Woodworks Industry

JOB POSITION ID	COTTAGE	MICRO	SMALL	MEDIUM	LARGE
Material sorter	-	-	√	√	√
Kiln dryer operator	-	√	√	√	√
Machine operator, basic (jointer, planer, radial armsaw, bandsaw, tablesaw, shaper/router, lathe, drill press)	√	√ (fabricated)	√	√	√
Machine operator, advanced (mortiser/ tenoner, pneumatic, dowelling machine, multihead moulder, multi-ripsaw)	-	-	-	√	√
Carpenter/Assembler (bar clamp, hydraulics/ pneumatic, rubber binders)	√	√	√	√	√
Finishing					
Sander	√	√	√	√	√
Finisher	√	√	√	√	√
Maintenance					
Machine operator	√	√	√	√	√
Saw doctor	√	√	√	√	√
Kiln operator	-	√	√	√	√
Electrician	On call	On call	On call	√	√
Plumber	On call	On call	On call	√	√
Electronics technician	-	-	-	√	√
Quality Control Officer	-	-	√	√	√
Foreman	Owner	Owner	√	√	√
Supervisor	Owner	Owner	√	√	√
Leadman	Owner	Owner	√	√	√

For management, managerial positions were usually held by the owner in cottage, micro and small enterprises; managerial positions were held by different persons in medium and large enterprises. Research and Development and Pollution Control Officers were normally found only in medium and large enterprises. Table 19 shows the different management positions for the builders' woodworks industry.

Table 19. Management Positions in the Builders' Woodworks Industry

JOB POSITION ID	COTTAGE	MICRO	SMALL	MEDIUM	LARGE
Manager					
Production	Owner	Owner	Owner/ Agent	Production Manager	Production Manager
Sales/Marketing	Owner	Owner	Owner/ Agent	√	√
Human Resources	Owner	Owner	Owner/ Agent	√	√
Accounting/Book keeping	Owner	Owner	On call	√	√
Purchasing	Owner	Owner	Owner	√	√
Maintenance	Owner/ On call	Owner/ On call	Owner/ On call	√	√
Product development specialist (design, full sizing, prototyping, testing)	Catalogue/ Customer's specs	Catalogue/ Customer's specs	Catalogue/ Customer's specs	√	√
Safety officer	Owner	Owner	Owner/ On call	√	√
Research and development officer	-	-	-	√	√
Pollution control officer	-	-	-	√	√

Actual Work Performed by the Different Positions in the Builders' Woodworks Industry

Respondents were asked on the actual work they perform regardless of whether they were regular or contractual workers. Actual work was also compared against the recommended manufacturing processes for builders' woodworks (Annex D). Responses for the 81 firms with worker respondents are summarized as follows:

Kiln Drying

There were 15 firms with lumber dryers, 8 of which were improvised dryers following no specific drying schedule, a steam-heated dryer and 6 furnace-type lumber dryers developed by the Forest Products Research and Development Institute (FPRDI). The steam-heated dryer and the furnace-type lumber dryers followed drying schedules developed by FPRDI.

Steps undertaken by the kiln dryer operator in kiln drying is summarized below:

- Load lumber
- Turn blower on
- Fire furnace
- Monitor moisture content of wood by weighing
- If desired moisture content is reached, let blower run for 1 day
- Unload lumber

Of the 15 kiln dryer operators, only one stated that dry and wet bulb temperatures are monitored, sample boards used and drying schedules followed.

Rough Milling/Machining

Steps undertaken in rough milling/machining are as follows:

- Saw square logs/lumber
- Cross cutting
- Planing
- Ripping

Safety features of machines like fences, splitting knife cover and dust collecting boxes were used by 31% of the workers only. Needed set-up or adjustments were made on the machines/equipment before they were turned on by 80% of the respondents. Saw blades were changed regularly, ranging from hourly to yearly. Although protective gears like goggles, push sticks, table guards and protective shoes are provided, only 54% actually used these protective gears/devices. Calibration of machines to the required settings was done by the machine operator himself (76%) every time the machine/equipment was used.

Jigs were used by only 25% of the respondents and pallets or loading carts were not used in moving stocks being prepared. It was observed that parts in process were piled on the ground/floor without any pallets in almost all of the firms visited.

Assembly/Carpentry

Steps involved in assembly/carpentry are:

- Joint construction
- Assembly
- Glueing
- Pressing
- Drying

Bar clamps were commonly used in assembly; other gadgets used include C-clamp, rubber or rope bands, table clamps, jigs and manually-operated assembly machine. Most commonly used joint was the mortise and tenon and its variations – through

and through, through and through with wedge, through and blind, blind without wedge and with wedge. Other joints used were the dowel, tongue and groove, plain/square edge and miter. Glue was used by 86% of the respondents as fasteners; dowels (68%), wedges (12%), nails (6%) and screws (4%) were also used.

Sanding/Finishing/Polishing

Pre-finishing operations done included bleaching (62%), coloring (76%), dyeing (14%) and sanding (91%). Manual/sanding blocks were used by more than ¾ (76%) of the firms while others used portable sanders (60%), angle grinders (16%) and oscillating belt sanders (2%). Silicon carbide sand papers were used by 86% of the respondents; other types of sand paper used included water resistant sand paper (78%), non-water resistant sand paper (4%) and cloth (7%).

Sanding schedules used varied from one firm to another, usually starting with grit 36 and finishing with grits as high as 1000; 37% of the respondents started their sanding schedule with grit 80 while 27% started with grit 100. Four respondents stated that they only used one grit for sanding.

Finishing materials used include nitrocellulose lacquer (78%), polyurethane (62%), varnish (25%) and paint (1%). Other materials used were fillers (70%), sealers (79%) and stains (74%).

Respondents still used conventional spraying equipment (74%), with only 1 firm using high volume-low pressure spraying equipment. Brushes were still used by 26% of the firms.

Finishing is done by almost all of the firms in an open area without a spray booth; only one firm did finishing in an open area with a spray booth. Drying of finished products was done under a shade by ¾ of the firms, and for 5 firms, directly under the sun.

Only 5 of the respondents (6%) learned how to finish thru trainings attended; skills in finishing were either self-learned (28%), acquired through experience (40%) or were taught to them by a supervisor, co-worker or relative (11%).

Steps involved in sanding/finishing are:

- Repair of surface
- Sanding
- Application of stain (if needed)
- Sanding
- Application of filler (if needed)
- Application of sanding sealer
- Sanding
- Application of top coat

3.0 Standards Formulation

Standards for the identified positions in the builders' woodworks industry were formulated. These include the skills and required and the knowledge each should possess (Table 20). Standards formulated were based on the draft standards being formulated by the Technical Education and Skills Development Authority (TESDA).

Table 20. Standards for Positions in the Builders Woodworks Industry

Area of Production	Position	Skills Required	Knowledge
Material Preparation	Sawyer	▪ Must be able to operate band saw/table saw ▪ Must be familiar with sawing patterns to maximize lumber output ▪ Must be able to identify species of wood used by the industry ▪ Must be able to use measuring instruments(caliper, tape measure, ruler, etc.) ▪ Must be able compute lumber volume (in board feet or cubic meter)	▪ Should know safety regulations and how these are applied in the workplace
	Material Sorter	▪ Must be able to identify species of wood used by the industry ▪ Must be able to use measuring instruments (caliper, tape measure, ruler, etc.) ▪ Must be able to identify common lumber defects ▪ Must be able compute lumber volume (in board feet or cubic meter) ▪ Must be able to know how to properly stack/pile lumber ▪ Must be able to operate a moisture meter	▪ Should know safety regulations and how these are applied in the workplace

Area of Production	Position	Skills Required	Knowledge
Material Preparation	Kiln dryer operator	▪ Must be able to read and interpret job requirements and specifications ▪ Must be able to pile lumber for drying ▪ Must be able to prepare sample boards ▪ Must be able to operate a moisture meter ▪ Must be able to manipulate drying schedules for kiln drying of wood ▪ Must be able to operate tools/gadgets for moisture content determination, air movement and relative humidity	▪ Should know safety regulations and how these are applied in the workplace ▪ Should know the different parts of the kiln dryer ▪ Should know how to read the dry bulb and wet bulb and determine relative humidity ▪ Should know how to compute for the moisture content of wood ▪ Should be able to determine drying degrades ▪ Should know how to perform equalization and conditioning treatment ▪ Should know how to properly store dried lumber ▪ Should know how to maintain the lumber dryer
Milling	Machine operator	▪ Must be able to read and interpret job requirements and specifications ▪ Must be able to operate basic woodworking machines (jointer, planer, radial arm saw, band saw, table saw, shaper, router, wood lathe, drill press) and power tools ▪ Must be able to use measuring instruments (caliper, tape measure, ruler, etc.)	▪ Should know safety regulations and how these are applied in the workplace ▪ Should know the different parts and accessories of the different wood working machines ▪ Should know the uses of the different wood working machines ▪ Should know the different machining principles (e.g. effect of cutting angle, feed speed,

Area of Production	Position	Skills Required	Knowledge
Milling (continued)	Machine operator (continued)	▪ Must be able to able to maintain the wood working machines ▪ Must be able to set up wood working machines	rpm, # of knives, etc.) ▪ Should know the different machining defects and how to avoid them ▪ Should be able to set up wood working machines
Joint construction and assembly	Carpenter/ Assembler	▪ Must be able to use measuring instruments (caliper, tape measure, ruler, etc.) ▪ Must be able to operate tools, machines/ equipment for joint construction and assembly ▪ Must be able to prepare and use jigs	▪ Should know the different types of joints and the factors affecting joint strength ▪ Should know the different types of fasteners and glues/adhesives and their proper application ▪ Should know the effect of wood characteristics (such as grain, moisture content, moisture absorption) on the properties of joints
Finishing	Sander	▪ Must be able to operate gadgets/machines/ equipment for sanding such as sanding blocks, orbital disc sander, wide belt sander, vertical belt sander, horizontal belt sander and drum sander	▪ Should know the effect of the characteristics of wood on finishing quality ▪ Should know the different sanding systems (manual and mechanical as well as the types of sand paper (backings, grits, binders) ▪ Should know the different sanding schedules ▪ Should be familiar with the different sanding principles (pressure, speed, direction, stroke, overlaps)

Area of Production	Position	Skills Required	Knowledge
Finishing	Finisher	▪ Must be able to operate gadgets/machines/ equipment for finishing (such as the spray gun, compressor, brush, spray booth, drying tunnel, dipping tanks, roller coater, curtain coater and automated finishing line) ▪ Must know how to repair surface defects such as dents, bruises, tool marks and cracks ▪ Must know the proper application techniques for different types of finishes	▪ Should be familiar with guides in sanding operations ▪ Should know the properties of different finishes (types, compositions, drying times, spreading rates) ▪ Should be familiar with the typical finishing sequence, i.e. staining, filling, sealing and top coating ▪ Should know how to prepare wood for finishing ▪ Should be familiar with the essentials of good finishing practices (fire prevention, safety to operators, storage and handling of finishing materials, maintenance of equipment, pollution control and cost control points) ▪ Should be able to determine the common defects in applied finishes and their remedies
Quality Control	Quality Control Officer/Personnel	▪ Must be able to use measuring instruments (caliper, tape measure, ruler, etc.)	▪ Should know existing standards for builders woodworks, particularly on dimensions ▪ Should have a knowledge of different manufacturing defects

Area of Production	Position	Skills Required	Knowledge
Quality Control (continued)	Quality Control Officer/Personnel (continued)		▪ Should know the species, properties, characteristics of wood and lumber defects ▪ Should know how to repair defective products ▪ Should know the different aspects of production

4.0 Training Needs Assessment

Based on the standards formulated, responses to the survey and observations by the pre-project team, training needs of the firms were identified. Prior to this, respondents were asked on their perceptions on the skills that they have and what they think they should possess.

More than ¾ (78%) of the respondents felt that they did not have the skills needed to perform the tasks they do and are assigned to do. They currently have basic skills in carpentry, joinery, assembly and finishing. These skills were acquired from previous employment or self-learned; only 30% stated that the skills they currently have were acquired through attendance in trainings. These trainings were usually conducted outside the firm, conducted either by a government agency or a supplier of materials used by the builders' woodworks industry, such as paint manufacturers. Only 4% of the respondents stated that their attendances to trainings were sponsored by their firm.

Training needs were identified by comparing responses to survey questions against the standards. The detailed listing of training needs is given in Annex E. Presented in Table 21 is the summary of the training needs of the workers as perceived by both management and workers. Common perceived training needs were on: (1) operation and maintenance of wood working machines; (2) finishing; (3) jointing or joint construction and assembly; (4) carpentry; (5) glue lamination; (6) design and manufacture of jigs; (7) safety measures; and (8) mixed media construction.

Training needs identified by management were more on managerial skills development such as book keeping, accounting and enterprise management (Table 22). Management respondents also indicated their need for refresher courses on the production aspects of the business, i.e. on wood drying, finishing and operation and maintenance of wood working machines.

Table 21. Training needs of workers in the builders' woodworks industry as perceived by management and workers

Management	Worker	Based on Standards
Assembly	Carpentry	5S
Carpentry	Design and manufacture of jigs	Assembly/Jointing techniques
Design and manufacture of jigs	Design/planning (full sizing)	Carpentry
Design/planning (product design, full sizing, execution of designs)	Drying of wood	Design and manufacture of jigs
Finishing (including latest techniques)	Facilities planning & lay-outing	Drying of wood
Finishing facilities operation & maintenance	Finishing (including latest techniques)	Finishing (including use of appropriate schedules and latest techniques)
Glue lamination	Full sizing	Good housekeeping
Jointing	Glue lamination	Kiln dryer operation and maintenance
Kiln dryer operation	Good manufacturing practices	Machine design (for fabricated equipment)
Machine operation and maintenance	Handling of kiln dried wood	Materials handling (including work-in-progress)
Mixed media construction	Housekeeping	Occupational health and safety
Occupation health and safety	Joint construction and assembly	Operation and maintenance of wood working machines (including recommended schedule for tool grinding and maintenance)
Operation and maintenance of wood working machines	Operation and maintenance of modern equipment	Plant lay-outing
Quality control	Material management and inventory control	Safety measures
Quality maintenance	Measurement	Wood processing
Safety measures	Mixed media construction	
Wood bending	New designs	
Wood identification	New technologies in wood processing	
	Operation and maintenance of kiln dryer	
	Preventive/Safety measures	
	Product design	
	Proper construction methods	
	Quality control	
	Safety measures	
	Solid wood bending	
	Time management	
	Tool maintenance	
	Values formation	
	Waste minimization	
	Wood carving	
	Wood identification	
	Wood lamination	
	Wood machining	
	Wood preservation	
	Wood processing techniques	
	Wood properties	
	Wood quality evaluation	

Fig. 1 Training needs for workers as identified by management and workers

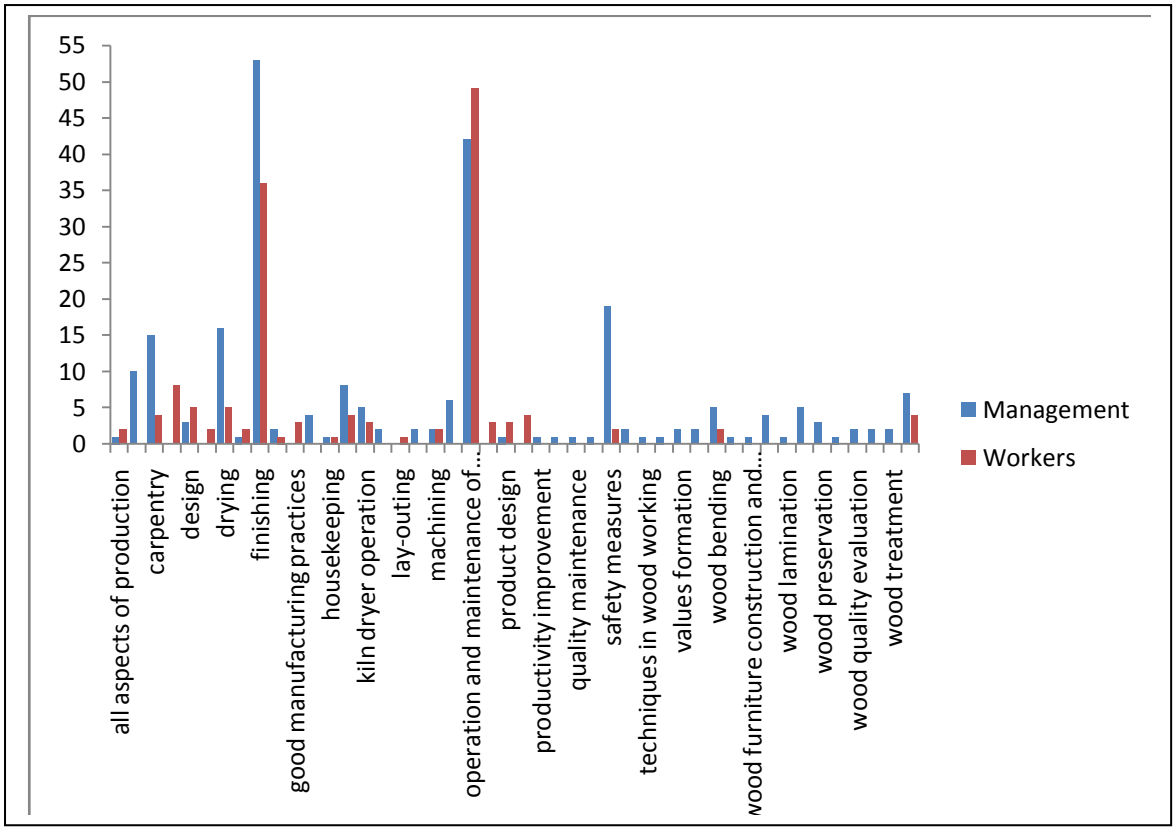

Table 22. Training needs identified by management respondents

Technology-based	Managerial
▪ Dryer operation ▪ Drying of wood ▪ Execution of designs (plans/sketches) ▪ Finishing ▪ Furniture design ▪ Maximization of raw materials ▪ Nature of wood ▪ Occupational health and safety ▪ Operation and maintenance of wood working machines ▪ Plant lay-outing ▪ Product designers ▪ Production of builders' woodworks ▪ Waste minimization ▪ Wood identification	▪ Accounting ▪ Book keeping ▪ Contract making ▪ Customer relations ▪ Management/Managing an enterprise ▪ Marketing ▪ Material management and inventory control ▪ Office management ▪ Personnel management ▪ Product costing/pricing ▪ Production management ▪ Production planning and control ▪ Productivity improvement ▪ Quality control/improvement ▪ Time management ▪ Values formation

Training needs identified based on the standards formulated and observations during the survey are also indicated in Table 21. These training needs are as follows:

1. 5S Program - The 5S is a structured program to systematically achieve total organization, cleanliness and standardization in the workplace. A well-organized workplace results in a safer, more efficient and more productive operation. It boosts the morale of the workers, promoting a sense of pride in their work and ownership of their responsibilities (http://www.siliconfareast.com). The 5S program is usually part of a system of continual improvement (http://graphicproducts.com).

2. Machine design – Most firms usually have fabricated pieces of wood working equipment. A training on machine design will help improve the performance of their fabricated machines, improve the quality of work and ensure some degree of safety since proper specifications can be addressed such as length and tension of belts, rating of electric motors that are suited to specific needs. This applies for firms that manufacture their equipment. The benefit of knowledge of machine designs to operators of machines is that they can operate and maintain the machines better than one who does not understand the design of the machines.

3. Design and manufacture of jigs – Jigs are not used by the respondents in their processes. The use of jigs can help improve productivity, provide a means by which uniform products can be produced and ensure worker's safety and product quality.

4. Operation and maintenance of wood working machines – Almost all of the respondents have no maintenance program for their wood working machines; often times, maintenance is done only when the equipment breaks down. Tool grinding and blade sharpening/replacement is not regularly done. A training on the operation and maintenance of wood working machines should be part of the capacity building program for the builders' wood works industry so that a regular maintenance program can be put in place, including a regular tool grinding and blade replacement schedule. Safety measures in handling equipment and in the work place can also be part of the training.

5. Finishing - Workers in the industry should have an understanding of the concepts and theories in finishing. As indicated in their responses, workers relied on skills, acquired either through experience or as taught by peers, in doing finishing. Hence sanding schedules vary from a single grit of sandpaper being used to a schedule which starts at a coarse grit (80 grit) ending in a very fine grit (1000 grit) without considering the nature of the substrate. Proper application techniques are also not followed, resulting in material wastage and inferior quality of finished surface.

6. Assembly/jointing techniques - A common cause for product rejects/returns is the loosening of joints in doors. This may be attributed to several factors among which are improper drying of wood and poor joint construction.

7. Drying of wood – As stated above, improper drying of wood is a common cause for product rejects in the industry. Although only a few respondents have lumber dryers, the importance of air drying wood should be stressed. A training on the importance of properly dried wood, how to air dry wood and how to determine moisture content using simple pieces of equipment is needed.

8. Materials handling - The use of pallets for handling materials, either raw materials being prepared or work-in-progress, is almost unheard of in all of the firms surveyed. Materials are often placed directly on the ground leading to absorption of moisture.

9. Refresher courses on wood processing and kiln dryer operations – Industry workers need to be updated on current trends and developments on wood processing that result in efficiency and productivity of operations. This is on top of a continuing review of the basic concepts. The idea is to render the workers a bit more dynamic in performing job responsibilities.

CONCLUSIONS

Based on the information gathered by the pre-project, the following conclusions can be made:

- The builders' woodworks industry in the Philippines is comprised mostly of micro- and small- enterprises with only a handful of medium and large-scale enterprises. As in other industries, around 90% of the firms in the industry have a capitalization of less than PhP 15 million (US $ 333,333) and a workforce of less than 100 and are usually single proprietorships.

- Most of the factories visited during the pre-project are registered with the Treasurer's Office of the municipality and have a Mayor's permit to operate.

- The industry is an established one, since only 41% of the firms were put up within the last decade. However, a great majority are first generation firms.

- There is no single association for builders' woodworks manufacturers; only a small percentage are members of either local associations of furniture producers or cooperatives. More than half of the respondents were not members of any industry association. The implications are poor access to capital, raw materials and technical information/technologies as well as very insufficient product promotion and market opportunities. Complementation between and among firms/shops does not seem to exist.

- Being micro-/small enterprises, degree of mechanization is not high; there is a predominant use of hand-held tools/equipment for wood processing and the use of fabricated or second-hand equipment is common. The performance of these machines is less precise which contributes to the low level of quality of products and higher cost of production.

- While a few of the firms visited during the pre-project have already incorporated in their production systems newer technologies such as dry kilns and are equipped with precision moisture meters and spray booths for finishing, most still rely on sun drying of their lumber which often leads to the use of lumber with high moisture content resulting in the opening of joints of manufactured products.

- Workers in the industry are predominantly male, with an average age of 38 years, high school graduates and acquired their skills through experience. Some shops employ women to perform certain tasks such as sanding and application of finishes.

- Most jobs by the small producers are on a contract basis. The owner of the factory contracts to the worker the production of builders' woodworks items. There is no work compartmentalization – one worker does everything from raw

material preparation to assembly. Finishing and carving is also contracted out on a per piece basis.

- There are no documented work procedures or quality control procedures/standards. The owner usually serves as the production manager/foreman and quality control inspector, performing quality control in every phase of production. Standards for dimensions are followed.

- There are very few safety measures implemented within the work place. Wastes such as sawdusts, shavings and trimmings are not regularly disposed of and most shops are fire-hazards. Few shops have fire extinguishers. Owners of shops claim that they provide protective gadgets such as masks for their workers but the latter refuse of wear them since they are not used to wearing one and they feel uncomfortable.

- Since the industry is made up mostly of micro and small-scale enterprises, most of the workers in the industry do not have formal training. Their skills are acquired by first working as an assistant in the shop and progressing into being allowed to operate the machines whenever the opportunity occurs such as when a machine operator is absent or when more hands are needed during the period of high levels of orders for products. As the worker gains more experience he is then given assignment to operate particular machines. Very few have had opportunities for formal training or are poorly trained and lack the necessary skills to produce high quality products. As such, the quality of products is low and cost of production is higher than necessary.

- Attendance to training courses is very low, with only a few workers sent to trainings. However, almost all of the firms are willing to send their workers to future training courses.

- More than ¾ (78%) of the respondents felt that they do not have the skills needed to perform the tasks they do and are assigned to do. The skills they currently have are basic skills in carpentry, joinery, assembly and finishing.

- Training needs for workers were identified by both management and workers. Common training needs identified were on: (1) operation and maintenance of wood working machines; (2) finishing; (3) jointing or joint construction and assembly; (4) carpentry; (5) glue lamination; (6) design and manufacture of jigs; (7) safety measures; and (8) mixed media construction.

- Training needs identified by management were more on managerial skills development such as book keeping, accounting and management of an enterprise. Management respondents also indicated their need for refresher courses on the production aspects of the business, i.e. on wood drying, finishing and operation and maintenance of wood working machines.

- Training needs for workers based on standards formulated are on: 1) 5S Program; (2) Machine design; (3) Design and manufacture of jigs; (4) Operation and maintenance of wood working machines; (5) Finishing; (6) Assembly/jointing techniques; (7) Drying of wood; (8) Materials handling; and (9) Refresher courses on wood processing and kiln dryer operations.

RECOMMENDATIONS

1. Improving the quality of products of the greater number of builders' woodworks manufacturers would require among others, a massive and sustained capability building of workers in the industry. This will also require convincing the owners of the benefits that their enterprises will get if their workers undergo capacity building. Thus, a full-scale project to follow up and build on the results of the pre-project is recommended to improve the knowledge and skills of workers in the builders' woodworks industry. Expectedly, this will result in the improvement of the quality of products, reduce manufacturing cost and enhance over-all productivity which would usher in better opportunities for Philippine builders' woodworks products in the local and international markets. The proposal for the full-scale project is in Annex F.

2. The full-scale project should not only concentrate on the provision of trainings for workers in the builders' woodworks industry; provision of technical assistance/services, infusion of new technologies as well as the improvement of the management skills of managers and supervisors should also be addressed. Mechanisms for linking manufacturers with sources of additional capital and raw materials, especially wood, should also be looked into to help micro and small enterprises expand production.

3. No degree of complementation or integration seems to exist among producers within the same or different levels of operation. The scheme can be a major area to be explored even on a pilot-scale basis. A big brother-small brother model can be initiated to test the values of sharing of resources and opportunities to sustain growth and development of the builders' woodworks industry. Initial talks with 3 large-scale manufacturers regarding this concept indicate that they are willing to extend assistance to the micro and small-scale enterprises.

4. The questionnaire used for the survey should be revised to reflect the standards formulated. The said questionnaire can also be used to determine the training needs of other sectors in the wood-using industries.

5. Information gathered from the pre-project clearly indicates the urgency of crafting a scheme that can ensure the continued viability of the builders' woodworks business in the Philippines. The industry sector is the source of livelihood of several thousand Filipinos across the entire archipelago. Presently and not surprisingly, the sector is beset with manufacturing difficulties and constraints which may, to a certain extent, threaten efficiency of operations. Any attempt, therefore, to provide tools for better industry performance will be considered top priority.

IMPLICATIONS FOR PRACTICE

- One of the pre-project's outputs is the formulation of standards to determine the training needs of workers in the builders' woodworks industry. The said standards can also be used to determine the training needs of workers in other sectors in the forest-based/wood-using industries. This can be of help in determining what capacity building programs are really needed.

- The standards can serve as useful guides for the Technical Education and Skills Development Authority (TESDA), Department of Trade and Industry (DTI), Department of Science and Technology (DOST) and wood industry associations (Chamber of Furniture Industries of the Philippines, Philippine Wood Producers Association, etc.) as well as training centers (Philippine Trade Training Center, Cottage Industry Training Center) in the design of appropriate, effective and relevant training courses.

- In collaboration with concerned government agencies and private development offices, manufacturers of builders' woodworks should be encouraged to form an association on a national level, with regional or provincial chapters, to be able to access capital, raw materials, technologies and potential markets more easily.

- Integration of rudimentary occupational health and safety in the production area such as safety gears, fire extinguishers, etc, should be minimum requirements even for micro-firms. Government should provide regular safety seminars to these firms.

Annex A. Questionnaire for training needs analysis

ITTO PPD 133/07 Rev. 1(I)
TRAINING NEEDS ANALYSIS FOR THE BUILDERS' WOODWORKS INDUSTRY IN THE PHILIPPINES

Survey Questionnaire for Management

I. General Information

1. Company Name: _____
2. Name of Respondent _____
3. Designation/Position Title: _____
4. Educational Attainment: _____
5. Age: _____ 6. Civil Status: _____ 7. If married, number of children _____
8. Address:
   Plant/Factory: _____
   Showroom: _____
9. Tel. Nos. _____ Fax No. _____
10. e-mail address: _____
11. Year company was established: _____
12. Is the company a:
    - ☐ 1st generation company (established by current owners)?
    - ☐ 2nd generation company (established by parents of current owners)?
    - ☐ 3rd generation company (established by grandparents of current owners)?
13. Product lines:
    - ☐ Doors
    - ☐ Door jambs
    - ☐ Cornices/moldings
    - ☐ Window jambs
    - ☐ Windows
    - ☐ Wood tiles
    - ☐ Joinery handles
    - ☐ Turned products
      - ☐ Balusters
      - ☐ Cabinet handles
    - ☐ Others, please specify _____
14. Type of organization:
    - ☐ sole proprietorship
    - ☐ partnership
    - ☐ corporation
    - ☐ cooperative
    - ☐ others, please specify _____
15. Membership in an association: _____

II. Capital and Assets

16. Floor area of plant/factory: _____ sq m.

17. Materials used in the construction of the plant/factory:

☐ concrete ☐ wood

☐ steel ☐ hollow blocks

18. Total cost of fixed assets used in **production only**:

Equipment ₱ _____

Building ₱ _____

Depreciation charge ₱ _____

Total working capital ₱ _____

19. Value-Added:

Gross sales per annum ₱ _____

Less: Cost of raw materials (% of gross sales) _____

Electricity (% of gross sales) _____

Contract labor (% of gross sales) _____

Parts and supplies (% of gross sales) _____

20. Sources of financing

☐ personal savings ☐ borrowed from relatives

☐ bank loan ☐ others, please specify _____

21. How much is your estimate net income per month or per year?

Before tax ₱ _____

After tax ₱ _____

III. Manpower (Note: If one person has other functions, please indicate)

Staff	Regular		Contractual		Skills Level			Salary Wage (₱)		
	Male	Female	Male	Female	Skilled	Semi-skilled	Un-skilled	Daily	Monthly	Per Piece
General Management										
Chairman of the Board										
President										
Vice-President for Research										
VP for Operations										
Production Manager										
Marketing Manager										
Secretary										
Bookkeeper										
Purchaser										

Staff	Regular		Contractual		Skills Level			Salary Wage (₱)		
	Male	Female	Male	Female	Skilled	Semi-skilled	Un-skilled	Daily	Monthly	Per Piece
Designer										
Others, please specify										
Production Department										
Raw Material Preparation										
Manager										
Supervisor										
Section Head										
Foreman										
Kiln dryer operator										
Clerk										
QC Inspector										
Others, please specify										
Rough Milling										
Manager										
Supervisor										
Section Head										
Foreman										
QC Inspector										
Workers/laborers										
Others, please specify										
Fine Machining										
Manager										
Supervisor										
Section Head										
Foreman										
QC Inspector										
Workers/laborers										
Others, please specify										

Staff	Regular		Contractual		Skills Level			Salary Wage (₱)		
	Male	Female	Male	Female	Skilled	Semi-skilled	Un-skilled	Daily	Monthly	Per Piece
Assembly/ Carpentry										
Manager										
Supervisor										
Section Head										
Foreman										
QC Inspector										
Workers/ laborers										
Others, please specify										
Carving										
Manager										
Supervisor										
Section Head										
Foreman										
QC Inspector										
Workers/laborers										
Others, please specify										
Sanding										
Manager										
Supervisor										
Section Head										
Foreman										
QC Inspector										
Workers/laborers										
Others, please specify										
Polishing										
Manager										
Supervisor										
Section Head										
Foreman										

Staff	Regular		Contractual		Skills Level			Salary Wage (₱)		
	Male	Female	Male	Female	Skilled	Semi-skilled	Un-skilled	Daily	Monthly	Per Piece
QC Inspector										
Workers/ laborers										
Others, please specify										
Finishing										
Manager										
Supervisor										
Section Head										
Foreman										
QC Inspector										
Workers/laborers										
Others, please specify										
Packing and Crating										
Manager										
Supervisor										
Section Head										
Foreman										
QC Inspector										
Workers/ laborers										
Others, please specify										
Quality Control										
Manager										
Supervisor										
Section Head										
Quality/Process Engineer										
Inspector										
Clerk										

Staff	Regular		Contractual		Skills Level			Salary Wage (₱)		
	Male	Female	Male	Female	Skilled	Semi-skilled	Un-skilled	Daily	Monthly	Per Piece
Others, please specify										
Marketing										
Manager										
Supervisor										
Section Head										
Marketing Analyst										
Import/ Export Document-ation Officer										
Clerks										
Contractual /job outers/ piece workers										
Suppliers/ Subcontrac tors										
Others, please specify										

22. How are workers recruited?

Mode of Recruitment	No. of workers recruited	
	Men	Women
☐ By posting notices/advertisements		
☐ in the factory/plant		
☐ in classified ads		
☐ in technical/vocational schools (pls specify school) _____		
☐ By getting recommendations from various technical/vocational schools (pls specify name of school) _____		
☐ By asking friends/relatives		
☐ By getting recommendations from workers in the plant/factory		
☐ Others, please specify _____		

23. On the average, how many workers leave/resign from your company per year? (Please give details)

Department	No. of years with the firm	Average number who resigned per year	Main reason for leaving/resignation
General Management			
Production			
▪ Raw material preparation			
▪ Rough milling			
▪ Fine machining			
▪ Carpentry			
▪ Assembly			
▪ Carving			
▪ Sanding			
▪ Polishing			
▪ Finishing			
▪ Packing and Crating			
Maintenance			
Quality Control/Assurance			
Marketing			
Department Managers/Supervisors/Foremen			

24. What are your minimum preferences in hiring different types of workers/employees? Please check from the list given below.

Preference	Worker Classification									
	Manager	Supervisor	Section Head	Foreman	Office Clerk	Prodn Clerk	Prodn Worker	QC Inspector	Sample Maker	Others
Education										
▪ With some elementary schooling										
▪ Elementary school graduate										
▪ High school graduate										
▪ Technical/vocational school graduate										
▪ College undergraduate										
▪ College graduate										
▪ With post-graduate units										
▪ With post-graduate degree										
Gender										
▪ Male										
▪ Female										
▪ Both male and female										
Level of skills										
▪ Skilled										
▪ Semi-skilled										
▪ Unskilled										
Residence										
▪ Native of town/city where plant is located										
▪ Native of province										
▪ Migrant										
Work experience										
▪ With relevant experience										
▪ Without experience										
Trainings										
▪ With relevant trainings										
▪ Without relevant trainings										
Character Traits										
▪ Dedication to work										
▪ Honesty										
▪ Patience										

25. Do you conduct in-house/on-the-job trainings for workers? ☐ Yes ☐ No

If yes, please specify average duration and cost of training per worker

Source of hired worker	Average duration of in-house/on-the-job training	Average cost per worker (₱) (do not include salary)
From technical/vocational school		
From non-technical/vocational school		
For out-of-school youth/leavers		
Others		

26. How do you determine the kind of training you conduct for each type of employees?

_____

_____

_____

27. How often do you determine these training needs? _____

28. Who determines the training needs of employees?

☐ In-house ☐ Commission others (please specify) _____

29. If training needs are determined in-house, how is this done?

_____

_____

30. Do you send your workers to trainings conducted outside the factory/by other organizations? ☐ Yes ☐ No

31. If yes, what is the average number of workers you send to train per year? _____

32. What is the average number of outside training programs you send your workers per year?

☐ 1 to 2 training programs

☐ 3 to 4 trainings programs

☐ more than 5 training programs

Title of Training Program	Worker's Position/Level	Sponsoring Agency	Cost of Training (₱)	Year

32. Given your experience, which training provides/gives you better returns?

- ☐ in-house trainings conducted by own staff
- ☐ trainings conducted outside the factory by specialized groups
- ☐ trainings conducted in-plant by hired trainors/consultants
- ☐ others, please specify _____

33. What training program do you need? Please rank in order of priority.

	Training Programs/Courses	Priority		
		High	Medium	Low
1	Wood Identification			
2	Wood Quality Evaluation			
3	Lumber Grading			
4	Wood Machining			
5	Wood Preservation			
6	Wood Seasoning			
7	Glue Lamination of Wood			
8	Production Planning and Control			
9	Material Management and Inventory Control			
10	Facilities Planning and Lay-outing			
11	Woodworking Machine Operation and Maintenance			
12	Finishing Facilities Operation and Maintenance			
13	Lumber Dry-Kiln Operators Course			
14	Solid Wood Bending			
15	Wood Furniture Construction and Assembly			
16	Design and Manufacture of Jigs			
17	Finishing Techniques			
	Other areas of interest (please specify)			

IV. Raw Materials, Machineries and Production

34. What are the raw materials that you use?

Raw material used	Source(s) of raw materials				Species used/Specifications	Volume used/month
	Local	%	Imported	%		
Solid wood						
Veneer						
Medium density fiberboard						
Plywood						
Plyboard						
Particleboard						
Fiberboard						
High density fiberboard						
Others, please specify						

35. What are the production machines/equipment that you use?

Pls check	Type of machine/equipment	No. of units	Year acquired	
			2008	before 2008 (specify)
Wood working machines/equipment				
	Cut-off or radial arm saw			
	Surface planer jointer			
	Thickness planer			
	Table saw			
	Circular saw with sliding table/panel saw			
	Band saw			
	Shaper/Spindle molder			
	Overhead router			
	Drill press			
	Mortiser/Double-end mortising machine			
	Tenoner			
	Horizontal boring machine/mortising machine			

Pls check	Type of machine/equipment	No. of units	Year acquired	
			2008	before 2008 (specify)
Wood working machines/equipment				
	Oscillating belt sander			
	Drum sander			
	Stroke sander			
	Disc sander			
	Profile sander			
	Abrasive planer			
	Wide belt sander			
	Copy lathe			
	Ordinary wood lathe			
	Copy milling machine			
	Carving machine			
	4-head planer molder			
	5-head planer molder			
	6-head planer molder			
	7-head planer molder			
	Veneer clipper/trimmer/cutter			
	Hydraulic hot press			
	Vacuum/membrane press			
	Multiple boring machine			
	Veneer stitching machine			
	Wood bending machine/equipment			
	Glue spreader			
	Clamp carrier/Taylor			
	CNC machine			
	Beam panel saw			
	Others, please specify			
Other equipment				
	Lumber dryer (specify capacity)			
	Spray booth			
	▪ Wet-filter spray booth			
	▪ Dry filter spray booth			
	Drying tunnel			
	▪ With conveyor system			
	▪ Without conveyor system			
	Dehumidifier			
	Air compressor			
	Centralized dust collector			
	Mobile dust collector			
	Others, please specify			

Pls check	Type of machine/equipment	No. of units	Year acquired	
			2008	before 2008 (specify)
Maintenance Equipment				
Universal profile grinder				
Circular sawblade grinding machine				
Sharpening machine				
Bandsaw blade welding machine				
Planer knife sharpening machine				
Others, please specify				

36. What is the average amount that the customers are charging back in a year?

☐ below US $ 1,000 per year

☐ US $ 1,000 and above per year

37. What is the nature/cause of the product rejects? (Please check)

Nature/Cause of Products Rejects	Before shipment	After shipment
Finishing		
Poor construction		
Handling		
Packaging		
Late shipment		
Others, please specify		

38. What are the actions taken by the firm when confronted with product rejects?

_____

_____

_____

39. Do you have quality standards section that checks on the quality of the products? ☐ Yes ☐ No

40. At what stages in the production do you check the quality of the products?

_____

_____

41. What steps are taken if and when a particular section in the production line is found to incur high percentage of rejection because of quality of the products?

_____

_____

V. Market Information and Problems

42. Markets

Specific Market	Domestic/Local		Export	
	Volume	Amount (₱)	Volume	Amount (₱)

43. What/who are your sources of information on new technologies/trends in the industry?

- ☐ trade shows/fairs
- ☐ market
- ☐ local consultants
- ☐ foreign consultants
- ☐ own R&D
- ☐ discussion with other furniture manufacturers
- ☐ suppliers
- ☐ magazines, trade journals
- ☐ others, please specify _____

44. How does the firm identify what it does well and what makes if different from its competitors?

_____

_____

_____

45. How does the firm identify what it does poorly and what should be avoided?

_____

_____

_____

46. Are problems and/or complaints documented and fed back to management? ☐ Yes ☐ No

47. Are efforts exerted to find and create a competitive advantage? ☐ Yes ☐ No

48. How does the firm identify changes that are threatening the business?

_____

_____

49. Are marketing information generated and processed to determine what the competitors are doing that may result in loss of clients, customers, market share?

☐ Yes ☐ No

VI. Quality Assurance System

50. Is there an existing document quality assurance system for implementation? ☐ Yes ☐ No

51. Are the firm's quality control procedures adequate? ☐ Yes ☐ No

52. Does the firm have a policy on promoting quality consciousness among workers? ☐ Yes ☐ No

53. If there is a policy on promoting quality consciousness, how is this done?

_____

_____

54. Who is in charge of promoting quality consciousness among workers? _____

55. How effective is the program in relation to the number of defects of rejects being produced?

_____

_____

VII. System for measuring yield

56. Do you measure and keep records of the following?

☐ % of total defects ☐ % of total rejects

☐ efficiency of production equipment and facilities ☐ production idle time

☐ production down time

57. Do you keep records on the nature of downtimes and the frequencies of their occurrence? ☐ Yes ☐ No

VIII. Performance Measures and Results - Product

58. Do you have existing standards for product quality? ☐ Yes ☐ No

59. Do you measure product attributes vis-à-vis standards? ☐ Yes ☐ No

60. Do you have a system for measuring customer satisfaction? ☐ Yes ☐ No

61. How do you measure customer satisfaction?

62. How often do you determine customer satisfaction level?

IX. Procedures for Continuous Improvement

63. How is the Continuous Improvement System (CIS) procedure/process being implemented?

64. How are procedures/processes standardized and coordinated firm-wide so that all departments practice CIS?

X. Product Pricing

65. How does the firm effectively select the approach for setting a base price?

66. How does the firm set and adjust prices to maximize profitability?

XI. Distribution Channels

67. How does the firm coordinate the distribution function with other marketing activities?

_____

_____

_____

68. How does the firm select and evaluate its channel of distribution?

_____

_____

XII. Customer Satisfaction

69. Does the firm employ a customer satisfaction measuring scheme? ☐ Yes ☐ No

70. Who implements such schemes?

_____

_____

71. How often do you review/update the measurement scheme?

_____

_____

72. How do you integrate customer satisfaction measurement results in your over-all business strategy?

_____

_____

XIII. E-Commerce

73. Does the firm have an existing system on e-commerce? ☐ Yes ☐ No

74. Does the firm subscribe to an ISP provider? ☐ Yes ☐ No

75. Are on-line transactions being employed by the firm? ☐ Yes ☐ No

73. If e-commerce is not yet employed by the firm, are efforts exerted to go on-line? ☐ Yes ☐ No

Thank You!

ITTO PPD 133/07 Rev. 1(I)
TRAINING NEEDS ANALYSIS FOR THE BUILDERS' WOODWORKS INDUSTRY IN THE PHILIPPINES

Survey Questionnaire for Workers

I. Socio-Economic Information

1. Company Name _____

2. Name of Respondent _____

3. Division/Department/Section where assigned in the company: _____

4. Designation: _____

5. Educational Attainment: _____

6. Age: _____ 7. Civil Status: _____ 8. If married, number of children: _____

9. Place of birth: _____

10. Present address: _____

11. Previous address, if any: _____

12. Number of years at previous address:

13. Reasons for moving:
- ☐ Due to marriage
- ☐ Employment
- ☐ Inheritance
- ☐ Encouragement from friends
- ☐ Others, please specify _____

14. Trainings attended related to job

Title of Training	Sponsoring Agency	Year

15. Income received: Daily: _____

Weekly: _____

Monthly: _____

16. Benefits received at work:

☐	Loans	☐	Educational assistance	☐	Purchased appliances	☐	Owned a house
☐	Housing	☐	SSS benefits	☐	Payment of daily expenses	☐	Savings in a bank
☐	Free meals	☐	Rent a house	☐	Rented a room	☐	Others, pls. specify _____
☐	Renovated residential house	☐	Bought furniture/ fixtures				_____

B. Employment Information

15. Year employed in this firm:

16. Status: ☐ Regular

☐ Contractual

☐ On-call

☐ Others, please specify _____

17. Previous position held in this firm:

Title of Position	Duration	Wage (₱)

18. Present position in the firm: _____

19. Job description: _____

_____

20. Tools/machine/equipment operated: _____

_____

21. How were you employed in this firm? ☐ Just applied

☐ Recommended by friends/relatives

☐ Recommended by school, please specify

☐ Others, please specify _____

22. Income received: Daily: _____

Weekly: _____

Monthly: _____

23. Work schedule: Number of regular working hours per day _____

Number of days per week _____

25. Work Experience

Year Employed	Name of Firm/Company	Position	Reason for Leaving

26. Job Satisfaction

Given below are statements regarding your satisfaction with your job. Please check the answer that best describe your thoughts/feelings.

Characteristic	Satisfied	Unsatisfied	Remarks
On work satisfaction			
Working condition			
Relations with co-workers			
Security of tenure			
Employee/Worker's benefit			
Technology can be used by both sexes			
Safety measures			
Promotion			
Salary			
Relations with supervisors/management			
Gender equality			

27. Attitudes toward gender-related issues

Below are some gender-related issues. Please state whether you agree or disagree with these statements.

Statement	Agree	Disagree	Remarks/Reasons
There is a disparity of wages among men and women workers			
Men and women are given equal opportunities in the furniture industry			
Hiring on a contractual basis is not dependent on gender			
Technologies/facilities are gender sensitive			
Child rearing/household tasks limit the participation of both male and female workers in the furniture industry			
Skills and technical trainings are available for both men and women			
There is no disparity in working hours and wages for both men and women			
Men and women receive the same benefits at work			
Employment marginalization is encountered by both male and female workers			
Reproductive roles affect women's performance at work			

28. Work-related Problems: Please check from the lists given below the problems you encounter at work

Problem	Rating					
	Excellent	Very Satisfactory	Satisfactory	Fair	Unsatis-factory	Poor
Salary						
Working conditions						
Facilities						
Safety measures at work						
Working relationship with co-workers						
Skills trainings						
Work hazards						
Others, please specify						

29. Please check from the list below the worker needs/interests that need to be addressed

Pls check	Needs/Interests of Workers	Specifics
	Organize an association/cooperative	
	Skills upgrading	
	Develop gender sensitive technology	
	Increase training activities	
	Others, please specify	

RAW MATERIAL PREPARATION

30. What are the materials that you use/process

- ☐ Solid wood, please specify species _____
- ☐ Veneer
- ☐ Medium density fiberboard (MDF)
- ☐ Plywood
- ☐ Particleboard
- ☐ Fiberboard
- ☐ High density fiberboard (lawanit)
- ☐ Others, please specify _____

31. What are the machines/equipment you use in raw material preparation?

- ☐ Cut-off or radial arm saw
- ☐ Surface planer jointer
- ☐ Thickness planer
- ☐ Table saw
- ☐ Circular saw with sliding table/panel saw
- ☐ Band saw
- ☐ Shaper/spindle molder
- ☐ Overhead router
- ☐ Drill press
- ☐ Mortiser/double-end mortising machine
- ☐ Tenoner
- ☐ Horizontal boring machine/mortising machine
- ☐ Oscillating belt sander
- ☐ Drum sander
- ☐ Stroke sander
- ☐ Disc sander
- ☐ Profile sander
- ☐ Abrasive planer
- ☐ Wide belt sander
- ☐ Copy lathe
- ☐ Ordinary wood lathe
- ☐ Copy milling machine
- ☐ Carving machine
- ☐ 4-head planer molder
- ☐ 5-head planer molder
- ☐ 6-head planer molder
- ☐ 7-head planer molder
- ☐ Multiple boring machine
- ☐ Veneer clipper/trimmer/cutter
- ☐ Hydraulic hot press
- ☐ Vacuum/membrane press
- ☐ Veneer stitching machine
- ☐ Wood bending machine/equipment
- ☐ Glue spreader
- ☐ Clamp carrier/Taylor
- ☐ CNC machine
- ☐ Beam panel saw
- ☐ Others, please specify _____

32. How do you dispose of:

Type of Waste	Please check if			
	Thrown away	Used for fuel	Recycled, pls specify	Other disposal system, specify
Solid wastes (wood slabs, trimmings, etc.)				
Sawdust				
Liquid wastes				
Others, please specify type of waste material				

33. In case of lumber/wood, do you:

☐ Kiln dry them at the factory?

☐ Buy them kiln-dried?

If kiln dried at factory, proceed to No. 35

34. If you buy it, where? _____

Please proceed to No. 41

KILN DRYING

35. If you kiln dry your lumber:

a. What is the capacity of your dryer? _____

b. How many units of dryers are there? _____

c. Is it ☐ Steam heated?

☐ Furnace-type?

☐ others, please specify _____

36. Do you follow a specific schedule for drying your material ☐ Yes ☐ No

37. If yes, who developed your drying schedule? _____

38. What is the final moisture content of the wood that you dry? _____

39. Please describe the steps you undertake in kiln drying

_____

_____

40. How do you dispose of:

Type of Waste	Please check if			
	Thrown away	Used for fuel	Recycled, pls specify	Other disposal system, specify
Solid wastes (wood slabs, trimmings, etc.)				
Sawdust				
Liquid wastes				
Others, please specify type of waste material				

ROUGH MILLING/MACHINING

41. What are the materials that you process?

- ☐ Solid wood, please specify species _____
- ☐ Veneer
- ☐ Medium density fiberboard (MDF)
- ☐ Plywood
- ☐ Particleboard
- ☐ Fiberboard
- ☐ High density fiberboard (lawanit)
- ☐ Others, please specify _____

42. What are the machines/equipments that you use in rough milling? Please check

- ☐ Cut-off or radial arm saw
- ☐ Surface planer jointer
- ☐ Thickness planer
- ☐ Table saw
- ☐ Circular saw with sliding table/panel saw
- ☐ Band saw
- ☐ Shaper/spindle molder
- ☐ Overhead router
- ☐ Drill press
- ☐ Mortiser/double-end mortising machine
- ☐ Tenoner
- ☐ Horizontal boring machine/mortising machine
- ☐ Oscillating belt sander
- ☐ Drum sander
- ☐ Stroke sander
- ☐ Disc sander
- ☐ Profile sander
- ☐ Abrasive planer
- ☐ Wide belt sander
- ☐ Copy lathe
- ☐ Ordinary wood lathe
- ☐ Copy milling machine
- ☐ Carving machine
- ☐ 4-head planer molder
- ☐ 5-head planer molder
- ☐ 6-head planer molder
- ☐ 7-head planer
- ☐ Multiple boring machine
- ☐ Clamp carrier/Taylor
- ☐ CNC machine
- ☐ Beam panel saw
- ☐ Others, please specify _____

43. How often do you make use of the safety fixtures like fences, splitting knife blade cover, dust collecting box during sawing?

- ☐ Always
- ☐ Occasionally
- ☐ Seldom
- ☐ Never

44. When do you make the necessary set-up or adjustments on your saws?

- ☐ Before turning it on
- ☐ After it has been turned on
- ☐ During sawing operation

45. How often do you change the saw blades?

- ☐ Regularly (please specify how often) _____
- ☐ When the blade gets dull
- ☐ Seldom

46. What protective gears/devices do you use when using wood working machines?

- ☐ table guard ☐ push stick ☐ others, please specify
- ☐ fence ☐ protective glasses/goggles _____

47. Do you actually use these protective gear/devices? ☐ Yes ☐ No

48. For all the machines/equipment used, who calibrates/adjusts them to the required settings?

- ☐ Maintenance people
- ☐ Machine operator
- ☐ Others, please specify _____

49. How often is this done?

- ☐ Every time the machine/equipment is used
- ☐ Once a day
- ☐ Once a week
- ☐ Others, please specify _____

50. Do you make use of jigs in all your processes? ☐ Yes ☐ No

51. Are pallets/loading carts used in moving stocks being prepared? ☐ Yes ☐ No

52. Please describe the steps involved in doing your specific job assignment?

53. How do you dispose of:

Type of Waste	Please check if			
	Thrown away	Used for fuel	Recycled, pls specify	Other disposal system, specify
Solid wastes (wood slabs, trimmings, etc.)				
Sawdust				
Liquid wastes				
Others, please specify type of waste material				

ASSEMBLY/CARPENTRY

54. Please describe the steps involved in assembly/carpentry, including the preparation done nd tools/equipment/machines you use.

55. Do you use the following in assembly? Please check

- ☐ jigs
- ☐ clamps
- ☐ rubber bands
- ☐ rope bands
- ☐ assembly machine
- ☐ cabinet press
- ☐ others, please specify

_____

56. What type of joints do you commonly use?

- ☐ plain edge/square edge joint
- ☐ dowel
- ☐ spline
- ☐ tongue-and-groove
- ☐ rabbet edge
- ☐ butt joint
- ☐ rabbet joint
- ☐ dado joint
- ☐ miter joint
- ☐ lap joint
- ☐ mortise and tenon joint
- ☐ dovetail joint
- ☐ others, please specify

_____

57. What fasteners do you use (please check)

- ☐ nails
- ☐ screws
- ☐ glue
- ☐ dowels
- ☐ others, please specify

_____

58. How do you dispose of:

Type of Waste	Please check if			
	Thrown away	Used for fuel	Recycled, pls specify	Other disposal system, specify
Solid wastes (wood slabs, trimmings, etc.)				
Sawdust				
Liquid wastes				
Others, please specify type of waste material				

SANDING/FINISHING/POLISHING

59. What pre-finishing operations do you do?

- ☐ coloring
- ☐ staining
- ☐ dyeing
- ☐ bleaching
- ☐ sanding
- ☐ others, please specify _____

60. What do you use for sanding before finishing?

- ☐ portable sander
- ☐ manual/sanding blocks
- ☐ oscillating belt sander
- ☐ drum sander
- ☐ stroke sander
- ☐ disc sander
- ☐ profile sander
- ☐ wide belt sander

61. What type of sand paper do you use?

- ☐ Backing
  - ☐ Cloth
  - ☐ Paper
    - ☐ Water resistant
    - ☐ Non water resistant
- ☐ Aluminum oxide
- ☐ Silicon carbide

62. What sanding schedule do you use? _____

63. What type of finishing material do you use?

- ☐ Varnish
- ☐ Polyurethane
- ☐ Ultraviolet lacquer
- ☐ NC lacquer
- ☐ Stains
- ☐ Fillers
- ☐ Sealers
- ☐ Others, please specify _____

64. What type of spraying equipment do you use?

- ☐ conventional
- ☐ airless
- ☐ high volume low pressure
- ☐ others, please specify _____

65. From whom did you learn how to finish?

- ☐ supervisor
- ☐ co-worker
- ☐ from relatives
- ☐ self-learned
- ☐ from previous employment
- ☐ others, please specify _____

66. Where do you do your finishing?

- ☐ in an enclosed room with a spray both
- ☐ in an open area without a spray booth
- ☐ in a spray booth inside an enclosed room
- ☐ in a spray booth inside an open area

67. Where do you dry your finished products

- ☐ in a drying tunnel with conveyor and drying equipment
- ☐ in a drying tunnel without conveyor but with drying equipment
- ☐ in a drying room with drying equipment
- ☐ under the sun
- ☐ under the shade
- ☐ others, please specify _____

68. Please describe the steps involved in doing your specific job assignment, including preparation done and the tools/equipment/machines you use.

69. How do you dispose of:

Type of Waste	Please check if			
	Thrown away	Used for fuel	Recycled, pls specify	Other disposal system, specify
Solid wastes (wood slabs, trimmings, etc.)				
Sawdust				
Liquid wastes				
Others, please specify type of waste material				

MAINTENANCE

70. Do you have a maintenance program? ☐ Yes ☐ No

If no, please proceed to No. 85

71. If yes, what type of maintenance program do you employ?

☐ Planned ☐ Unplanned

☐ preventive ☐ others, please specify

☐ corrective _____

72. How often do you do maintenance checks?

☐ once a day ☐ all of the above

☐ once a week ☐ others, please specify

☐ once a month _____

73. Who does maintenance work? _____

74. Are the parts needed for repair:

☐ readily available

☐ bought only when needed

☐ some kept in inventory/readily available and some bought only when needed

75. Do you have the necessary tools or equipment needed for maintenance works? ☐ Yes ☐ No

76. If yes, what are the tools or equipment used?

☐ open wrench ☐ grease gun

☐ back wrench ☐ others, please specify _____

77. Who is in charge of their safekeeping and maintenance? _____

78. Is there a space assigned for maintenance works? ☐ Yes ☐ No

79. Are the equipment to be maintained:

☐ pulled out and brought to an area for maintenance works only

☐ checked in the work area

80. Is there a manual or guide for preventive maintenance that is followed in the performance of the preventive maintenance program? ☐ Yes ☐ No

81. Does the manual/guide include the following information?

☐ frequency of inspection ☐ type of work to be done

☐ methods of inspection ☐ standards for each specific equipment

☐ parts to be inspected ☐ others, please specify _____

82. Are the following records kept?

- ☐ maintenance requests and work orders
- ☐ machinery and equipment repair records
- ☐ cost records
- ☐ machinery and equipment operating records
- ☐ manufacturer's manual

83. Please describe the steps involved in doing your specific job assignment, including preparation done and the tools/equipment/machines you use.

84. How do you dispose of:

Type of Waste	Please check if			
	Thrown away	Used for fuel	Recycled, pls specify	Other disposal system, specify
Solid wastes (wood slabs, trimmings, etc.)				
Sawdust				
Liquid wastes				
Others, please specify type of waste material				

85. If none, do you personally undertake maintenance work on the equipment you use? ☐ Yes ☐ No

86. How often are your machines maintained?

- ☐ once a day, at start of the day
- ☐ once a day, before day is over
- ☐ once a day, at the end of the work shift
- ☐ once a week
- ☐ once a month
- ☐ all of the above
- ☐ others, please specify _____

87. If you personally maintain your equipment, where did you learn the skills?

- ☐ by experience
- ☐ underwent training

88. If you do not personally maintain your equipment, do you think you should possess the skills for maintaining your equipment?

- ☐ Yes
- ☐ No

89. What protective gear are you provided with?

- ☐ gloves
- ☐ apron
- ☐ others, please specify
- ☐ mask
- ☐ safety goggles _____

90. Do you actually use these gears? ☐ Yes ☐ No

PACKING

91. Please describe the steps involved in doing your specific assignment, including the preparation done and the tools/equipment/machines you use.

92. How do you dispose of:

Type of Waste	Please check if			
	Thrown away	Used for fuel	Recycled, pls specify	Other disposal system, specify
Solid wastes (wood slabs, trimmings, etc.)				
Sawdust				
Liquid wastes				
Others, please specify type of waste material				

TRAINING NEEDS ASSESSMENT

93. Do you think you have all the skills needed to perform the task you are assigned to do? ☐ Yes ☐ No

94. If you have all the skills needed to perform your task, what are those skills?

_____

_____

_____

95. If you have all the skills needed to perform your task, where did you learn the skills you now possess?

_____

_____

_____

96. Did you undergo any training? ☐ Yes ☐ No

97. If yes, where did you train? _____

98. Who sponsored your training? _____

99. Does the firm have a training program? ☐ Yes ☐ No

100. Have you undertaken trainings conducted/sponsored by your company? ☐ Yes ☐ No

101. If yes, are the skills you acquired under those trainings still relevant to your kind of work now? ☐ Yes ☐ No

102. If you did not undergo any training, did you learn your skills by experience? ☐ Yes ☐ No

103. Did you have these skills before you were employed? ☐ Yes ☐ No

104. Were your experiences with this firm or elsewhere? ☐ With this firm ☐ Elsewhere

105. If you do not have all the skills needed to perform your task, what are the skills you possess now?

_____

_____

_____

106. What are the other skills do you think you still need to acquire?

_____

_____

_____

107. Where could you obtain those skills that you do not now possess?

_____

_____

108. How do you check the quality of the material you prepared?

_____

_____

_____

_____

109. Is there a quality inspector who checks on the materials that you have prepared? ☐ Yes ☐ No

110. Is there a standard that you are following? ☐ Yes ☐ No

111. What are the standards, if you have any?

_____

_____

112. If you do not have the standards, how do you know that the materials that you produced are of acceptable quality?

_____

_____

113. Were some of the materials you prepared rejected? ☐ Yes ☐ No

114. What is the percentage rejection of the materials you prepared? _____

Annex B. List of Respondents - Management

Name of Firm	Name of Respondent	Address	Telephone Number
A&A Woodcraft	Arwin Alemagno	Sta. Elena San Pablo City, Laguna Region IV-A	(049) 801 3607
A. Lucañas Furniture	Arnel Lucañas	Purok 1, Sta. Teresa Malilipot, Albay Region V	0919 338 5721
ABC Lumber	Antonio Lim	Upper Mohon Talisay City, Cebu Region VII	(032) 273 2963
AJ's Upholstery & Furniture Shop	Josephine B. Tayag	Brgy. 16, Payas San Nicolas, Ilocos Norte Region I	0917 853 0102
Al G Furniture	Albert Gaetos	Ili Norte, San Juan La Union Region I	0915 546 9087
Alfredo Gumpeng Furniture Shop	Alfredo Gumpeng	Bacsayan, San Juan La Union Region I	0918 651 2255
AMD Sash Factory	Abel S. David	McArthur Highway San Pablo, Malolos City Bulacan Region III	
Andres Guardian Furniture Shop	Andres Guardian	Garcia Compound Cogon, Bibincahan Sorsogon City, Sorsogon Region V	0919 611 6627 0907 469 4721
Antigong Kahoy	Redante Porca	National Highway Sitio Natipolo, Barangay Labuin Sta. Cruz, Laguna Region IV – A	0921 731 2620 (049) 810 2833
Antonio Deocareza Furniture Shop	Antonio Deocareza	Amador St., Bacon District Sorsogon City, Sorsogon Region V	0920 450 5687
AR Sash Woodworks	Ponciano N. Angeles	McArthur Highway Sindalan, City of San Fernando Pampanga Region III	0920 750 5343 0916 714 3905
Ariel Furniture Shop	Arnold Reyes	Brgy. Nambalan Mayantoc, Tarlac Region III	0905 350 7904

Name of Firm	Name of Respondent	Address	Telephone Number
Bacnotan Furniture Shop			
Balance Handicrafts	Salvador Balance	Purok 2, San Antonio Tabaco City, Albay Region V	(052) 435 4751
Bañaga Woodworks	Ronnie Bañaga	Brgy. Nambalan Mayantoc, Tarlac Region III	0926 359 7222
Barja's Furniture	Surec Barja	Zone 2, San Vicente Tabaco City, Albay Region V	0915 938 2945 0926 702 9167
BCC Woodworks Sash & Furniture	Racquel B. Cuenco	177 San Miguel Betis, Guagua, Pampanga Region III	0918 316 3784 (045) 900 2215
Belen Woodworks	Robledo Daza Belen	Barleta Subdivision Barangay VI-E San Pablo City, Laguna Region IV-A	(049) 562 0994
Bhoycel Betis Sash & Furniture Shop	Leonardo Angeles	Dalan Bayan, San Matias Guagua, Pampanga Region III	0921 997 6371
Bohol Furniture	Julieta Bohol	National Highway, Matabaw Buenavista, Agusan del Norte Region XIII	0921 616 8628
Bon-bon's Furniture Shop	Raymundo Bulunan	Bayombong, Nueva Vizcaya Region II	0919 467 2272
BT2 Furniture	Betito Carlos	Diversion Road, Triangulo Naga City, Camarines Sur Region V	(054) 472 7278
Bueno Furniture	Arturo Bueno	Barangay Nambalan Mayantoc, Tarlac Region III	0918 915 1341
Builder's Mate Enterprise	Eduardo F. Alacar	Turod Sur, Cordon, Isabela Region II	(02) 541 1810 0920 283 3033 0920 546 0530
Bulwanganon Trading	Humberto Franco Navarro	Florenceville Subdivision Barangay Pahanocoy Bacolod City, Negros Occidental Region VI	
C.V. Belen's Woodcraft	Linda Belen	Magsaysay Avenue Concepcion Pequena Naga City, Camarines Sur	(054) 478 7117

Name of Firm	Name of Respondent	Address	Telephone Number
Cabuguas Sawmill and Furniture	Primo Cabuguas	Purok 2, Barangay 4 Buenavista, Agusan del Norte Region XIII	0905 966 6674
Carpenter's Woodcraft	Felicisima C. Comia	Unit 9 – 13, Plan Building National Highway, Macabling Sta. Rosa, Laguna Region IV-A	(049) 837 3555
Casa Antigo Furniture	Nestor C. Punzalan	National Highway Barangay Antipolo, Labuin Sta. Cruz, Laguna Region IV-A	0915 784 1987 0915 340 3082
Coligian's Furniture Shop	Diego Malabanan	Barangay Ibabang, San Roque Liliw, Laguna Region IV-A	(049) 536 1101 0915 527 5562
Cordon Woodwork Furniture Shop	Alex Hambon	Barangay Roxas, Cordon, Isabela Region II	0920 320 2745
Cristal Woodworking Shop	Angelito Cristal	Maligaya Riverside, Iba San Jose, Tarlac Region III	0909 551 2112
Derrick Sash Factory	Ronald Garcia	Purok 5, Dakila, Malolos City Bulacan Region III	0919 359 0666 0927 479 2353
Dinglasan Unique Woodworks	Salvador Dinglasan	Pongco, Bacon District Sorsogon City, Sorsogon Region V	0920 636 1973
Dominic Tano Furniture Shop	Dominic Tano	Bayubay Norte, San Vicente Ilocos Sur Region I	
Ducay Furniture and Woodcrafts	Filemon Ducay	#2408 Barangay del Remedio San Pablo City, Laguna Region IV-A	
Duroy Furniture	Herminia Duroy	San Lorenzo, Tabaco City Albay Region V	0918 511 2191
Edaren's Furniture Shop	Benilda Bang-ao	Taboc, San Juan La Union Region I	0917 508 3040
Ely Dreu Furniture Shop	Ely D. Dreu	Narra St., Sts. Peter and Paul Ville Subdivision Bibincahan, Sorsogon City Sorsogon Region V	0908 988 3368

Name of Firm	Name of Respondent	Address	Telephone Number
Emariel Furniture	Rex Santiago	Barangay Nambalan Mayantoc, Tarlac Region III	0906 257 4924
Endurance Technology Corporation (E-TECH)	Joseph Victor G. Joaquin	C.M. Recto Street Sun Valley Subdivision Mabato, Pulungbulo City of San Fernando, Pampanga Region III	0917 533 1001 (045) 551 1555
ERP Furniture Shop	Eduardo R. Pascua	Purok 6, Sawmill Villaverde, Nueva Vizcaya Region II	0926 729 6765
F. Madalag Furniture	Freeman Madalag	Lopez Jaena St. Bacolod City, Negros Occidental Region VI	
FEMS Enterprises	Felixberto Saba	Baladad Compound Libertad, Bacolod City Negros Occidental Region VI	341 8242 341 6917
Flores Sash & Iron Works	Napoleon Flores	National Highway Barangay Labuin, Sta. Cruz Laguna Region IV-A	0908 290 9071
Gemma Alacon	Gemma G. Alacon	McArthur Highway San Pablo, Malolos City Bulacan Region III	0918 766 8063
Hans Sash & Furniture	Sherwin Santos	Lolomboy, Bocaue Bulacan Region III	
Hill Crest Sash & Furniture Shop	Braulio A. Corpuz Jr.	Purok 1, Masoc Bayombong, Nueva Vizcaya Region II	0928 310 5440
Ideas Construction Supply	Purisima Encinares	Ariman, Gubat Sorsogon Region V	(056) 311 1548
J. Guanzon Woodcraft	Jose Guanzon Jr.	McArthur Highway Ilang-ilang, Guiguinto Bulacan Region III	
Jaime Detera's Woodworks	Jaime Detera	Purok Magsaysay, Buhatan Sorsogon City, Sorsogon Region V	

Name of Firm	Name of Respondent	Address	Telephone Number
J-Anne Licup Woodcraft & Furniture Shop	Sales E. Licup	Tagdon, Barcelona Sorsogon Region V	0920 307 6265
JB Woods	Joeffrey T. David	#472 Sto. Niño, Lagundi Mexico, Pampanga Region III	
JD's Landscaping and Merchandise	Joselito Domalanta	Malindong Highway Binmaley, Pangasinan Region I	0917 515 9380
Jhotech Sash Factory & Furniture		City of San Fernando Pampanga Region III	
John Rey's Furniture	Jerry Tana	Lopez Jaena St. Bacolod City, Negros Occidental Region VI	
Jonathan Tababa Woodworks	Jonathan Tababa	Maligaya Riverside Iba, San Jose, Tarlac Region III	0907 981 3961
JRD Furniture & Sash	Johnny David	Olongapo – Gapan Road San Matias, Guagua Pampanga Region III	
Kimas Furnishing	Esterlina Geduriagao	Lacson St. Barangay Mandalagan Bacolod City, Negros Occidental Region VI	441 3640
King Daniel Sash Factory	Paquito L. Salalila	McArthur Highway, Longos Malolos City, Bulacan Region III	
L. Orongan Enterprise	Lemuel G. Orongan	Andaya Subdivision Purok 5, Barangay 17 Quirino St., Butuan City Agusan del Norte Region XIII	342 0074 342 5110
Limbas Furniture	Siegefied In-uyay	Capir-piruan, Cordon Isabela Region II	0920 231 8283
Los Baños Wood and Iron Works	Alberto Batino	Maahas, Los Baños, Laguna Region IV-A	0906 361 0255
M.C. Dioneda Furniture	Ronald Dioneda	Purok 5, San Antonio Tabaco City, Albay Region V	0921 573 8091

Name of Firm	Name of Respondent	Address	Telephone Number
M. Camacho Furniture & Woodcraft	Maritess Camacho	Barangay Laurel Cordon, Isabela Region II	0927 596 6140
Maglaya's Furniture Shop	Manuel Maglaya Jr.	Las-ud, Caba, La Union Region I	0916 269 8802
Magtoto Sash Factory	Renato Magtoto	Lagundi, Mexico, Pampanga Region III	
Marana Prime Wood Products	Prospero dela Cruz	Marana I, Ilagan, Isabela Region II	0919 510 5067
MCMA Woodworks Sash & Furniture	Christina David	Olongapo-Gapan Road San Juan Nepomuceno Guagua, Pampanga Region III	0919 821 3614 0920 713 2415 (045) 477 6349
MEGA Woodcraft	Wilson Salalila	McArthur Highway Dakila, Malolos City Bulacan Region III	0915 982 0970
Morales Mini Lumber and Furniture	Elena Morales	Jose Rizal St., Nasipit Agusan del Norte Region XIII	0920 296 4641
Morning Star Marketing	Alexander P. Goles	Motorpool, Tugod Surigao del Norte Region XIII	(086) 365 2187 0909 500 7138
MTB Furniture Shop	Isidro Bulanadi	National Highway Barangay Bantog, Roxas Isabela Region II	0928 386 9420
Muebles Ilocandia	Myke Dayson	Purok 3, Bagahabag Solano, Nueva Vizcaya Region II	(078) 326 0396 0927 932 8478
New JB Home Center & Lumber Dealer	Josephine Refrado Bulawan	Purok 2E, Ampayon Butuan City, Agusan del Norte Region XIII	0919 858 7559
New Julie's Woodcraft	Crisaldo Ipac	Bacqui, Bacnotan, La Union Region I	0926 314 7188
New Nelson's Furniture	Donny Uy Co	Lopez Jaena St., Barangay 31 Bacolod City, Negros Occidental Region VI	707 3066
Nitz Furniture and Piano Center	Nestor Flores	144 Peñafrancia Avenue Naga City, Camarines Sur Region V	473 2262

Name of Firm	Name of Respondent	Address	Telephone Number
Northlandia Enterprises	Paulino M. Tan	#26 V. Mapa St., Plaridel Santiago City, Isabela Region II	(078) 682 8771 (078) 682 7431 (078) 682 7431
Oredina Furniture Shop	Gil D. Oredina	Calautit, Bacnotan, La Union Region I	0928 577 6913
P.A.G. Sash Factory	Pablo E. Bondoc	Sto. Cristo, Parian, Mexico Pampanga Region III	
Pagsanjeños Sash Factory	Job Quizon	Barangay Biñan, Pagsanjan Laguna Region IV-A	0905 503 5438
Pandayan Furniture & Sash Factory	Geoffrey Abelanes	Taft St., Barangay Pandayan San Juan, Ilocos Sur Region I	0917 842 3928
Pasajol Woodcraft	Renato P. Pasajol	Barangay San Vicente San Pablo City, Laguna Region IV-A	(049) 562 6185 0928 505 5127
Pauig Furniture	Moises C. Pawig	Barangay Marana, Ilagan Isabela Region II	0917 247 0620
Paul & Angel Sash Factory	Sylvano Par	Poblacion East, San Ildefonso Ilocos Sur Region I	0916 523 9766
Perry Furniture Shop	Christopher Bunoan Sr.	Burabod, Poblacion Bacon District, Sorsogon City Sorsogon Region V	0928 361 1775
Phel's Furniture & Sash Factory	Teofilo Bacho	Barangay Nambalan Mayantoc, Tarlac Region III	0916 936 4197
Prime Pacific Ventures	Winston A. Guillen	Purok Lanzones Barangay San Vicente Butuan City, Agusan del Norte Region XIII	0918 017 8469 (085) 341 4958
PRM Sash & Furniture	Pacifico Manlutac	San Miguel, Betis, Guagua Pampanga Region III	(045) 900 3110 (045) 900 2320 0920 407 6978
R.M. Velasquez Sash Factory	Roland Velasquez	Sto. Cristo, Masangsang Mexico, Pampanga Region III	0920 235 5010

Name of Firm	Name of Respondent	Address	Telephone Number
R. Palisoc Furniture Shop	Rhodora Palisoc	#151 Maninding, Sta. Barbara Pangasinan Region I	
Ravil's Furniture	Dominador Reyes	Barangay Nambalan Mayantoc, Tarlac Region III	0927 223 7785
Real Madrid Sash & Iron Works	Esmael Madrid	Ba-ay, Lingayen Pangasinan Region I	(075) 522 4607 0919 430 3801
Reylen's Furniture & Enterprise	Reynaldo B. Agub Jr.		
RM Dimaandal Woodcraft Corp.	Rogelio M. Dimaandal	Caritan Norte boundary Atulayan Tuguegarao City, Cagayan Region II	(078) 846 3978 0917 323 5322 0923 852 9164
Romulo Jose Shop	Romulo Jose	Maligaya Riverside Iba, San Jose, Tarlac Region III	0910 782 6379
S.P. Tababa Furniture	Samuel Tababa	Purok Masagana, Iba, San Jose Tarlac Region III	0921 251 5755
San Francisco Association of Differently Abled Persons	Rolando T. Ordoña	Sitio Damilag, Pisaan San Francisco Agusan del Sur Region XIII	0918 201 2250
Sarviane Woodcraft	Herminia Nicolas	McArthur Highway, Longos Malolos City, Bulacan Region III	0907 290 7554
T4J Woodwork	Teresita Santiago Cruz	Tamarindo St., Lolomboy Bocaue, Bulacan Region III	0916 751 7326
Thomas Tababa Shop	Thomas Tababa	Maligaya Riverside Iba, San Jose, Tarlac	
Tiber Woodcraft	Reynaldo G. Cu	341 San Vicente St. Binkilan, Butuan City Agusan del Norte Region XIII	(085) 225 7378 (085) 953 1483
VM Cepeda Sash	Eduardo Cepeda	National Highway Barangay Calo, Bay, Laguna Region IV-A	0908 274 5533
Wilreg Sash & Woodworks	Wilfredo Tasic	McArthur Highway Telabastagan City of San Fernando, Pampanga Region III	

Annex C. List of Respondents – Workers

Name of Firm	Name of Respondent
A&A Wodcraft	Manuel Laagbay
A. Lucañas Furniture	(none interviewed)
ABC Lumber	Joseph Nebria
AJ's Upholstery & Furniture Shop	Ernesto Eugenio Sr. Ricardo Sunga Noel Tangunan
Al G Furniture	Danilo Biscara
Alfredo Gumpeng Furniture Shop	Renato Monar
AMD Sash Factory	(none interviewed)
Andres Guardian Furniture Shop	Miguel Dumitita
Antigong Kahoy	Ezeqiuel Hebio
Antonio Deocareza Furniture Shop	Carlos Dioneda Danilo Furio
AR Sash Woodworks	Rogelio David
Ariel Furniture Shop	(none interviewed)
Bacnotan Furniture Shop	Jojo Hernandez Richard Aguiguin
Balance Handicrafts	(none interviewed)
Bañaga Woodworks	Ronnie Bañaga Jr.
Barja's Furniture	Rex Barja Edwin Villegas Marlon Villegas
BCC Woodworks Sash & Furniture	Dionisio Adorza Jr.
Belen Woodworks	Benito Villaforte
Bhoycel Betis Sash & Furniture Shop	Abel Serrano
Bohol Furniture	
Bon-bon's Furniture Shop	Roberto Guyudan
BT2 Furniture	Raymond Betito
Bueno Furniture	Alfredo Briones
Builder's Mate Enterprise	Roberto Sibayan
Bulwanganon Trading	Joseph Amshid
C.V. Belen's Woodcraft	Eddie de Villa
Cabuguas Sawmill and Furniture	
Carpenter's Woodcraft	Christopher Caido
Casa Antigo Furniture	Gilbert Punzalan
Coligian's Furniture Shop	Joel Malabon
Cordon Woodwork Furniture Shop	(none interviewed)
Cristal Woodworking Shop	(none interviewed)
Derrick Sash Factory	Antonio Pelagio
Dinglasan Unique Woodworks	Reynato G. Pura
Dominic Tano Furniture Shop	Enrique Presto
Ducay Furniture and Woodcrafts	Jesus M. Tamayo
Duroy Furniture	Vicente Belisario Arwin Brutas
Edaren's Furniture Shop	Alex Dangpalen Mardo Bang-oa
Ely Dreu Furniture Shop	Roland Griante
Emariel Furniture	(none interviewed)

Name of Firm	Name of Respondent
Endurance Technology Corporation (E-TECH)	Billy Victor
ERP Furniture Shop	Eduardo Pascua Jr.
F. Madalag Furniture	(none interviewed)
FEMS Enterprises	Jaime Cinco Godofred Seit Roger Felitro
Flores Sash & Iron Works	Edgar Abary
Gemma Alacon	Rogelio Gordora
Hans Sash & Furniture	Victor Camarista
Hill Crest Sash & Furniture Shop	Ronie Guyudan
Ideas Construction Supply	Gerry Pallien
J. Guanzon Woodcraft	Victor Orlina
Jaime Detera's Woodworks	Domingo Leoncito Rico Lanuza
J-Anne Licup Woodcraft & Furniture Shop	(none interviewed)
JB Home Center	Rene Montes Jeorge Dumagcoy
JB Woods	Fidel Mallari
JD's Landscaping and Merchandise	Leonardo R. Villanueva Jr.
Jhotech Sash Factory & Furniture	Julius Evangelista
John Rey's Furniture	John Rey Timtim Ritchie Pasale
Jonathan Tababa Woodworks	Jonjon Tababa
JRD Furniture & Sash	Lourdes Manansala Emilio Tolentino
Kimas Furnishing	Levy Benejol Johnny Garolacan
King Daniel Sash Factory	Nestor Cano
L. Orongan Enterprise	Dodong Salazar
Limbas Furniture	(none interviewed)
Los Baños Wood and Iron Works	Carlos Salazar
M.C. Dioneda Furniture	(none interviewed)
M. Camacho Furniture & Woodcraft	Jano dela Vega
Maglaya's Furniture Shop	Darwin Libatique
Magtoto Sash Factory	Alvin Magtoto
Marana Prime Wood Products	(none interviewed)
MCMA Woodworks Sash & Furniture	Felix David
MEGA Woodcraft	(none interviewed)
Morales Mini Lumber and Furniture	Glenn Bitco Jerson Morales
Morning Star Marketing	Allan Nabo Candido Lasota Jr.
MTB Furniture Shop	Reynaldo Gutierez
Muebles Ilocandia	(none interviewed)
New JB Home Center & Lumber Dealer	(none interviewed)
New Julie's Woodcraft	Lito Villanueva Jason Ibañez Ron Ipac
New Nelson's Furniture	Federico Alequiza Ernie Villa
Nitz Furniture and Piano Center	Noel Villagomez

Name of Firm	Name of Respondent
Northlandia Enterprises	Alejandro Lumibao
Oredina Furniture Shop	George Ricanor
P.A.G. Sash Factory	(none interviewed)
Pagsanjeños Sash Factory	(none interviewed)
Pandayan Furniture & Sash Factory	Ronnie Rapanut William Noel Poma Rafael Ordona Nestor Ucente Jr. Jonathan Fontanilla
Pasajol Woodcraft	Jimmy Plasino Sr.
Pauig Furniture	(none interviewed)
Paul & Angel Sash Factory	Jovencio Ramos Jr.
Perry Furniture Shop	Eduardo Preyu
Phel's Furniture & Sash Factory	(none interviewed)
Prime Pacific Ventures	Manolito G. Laurante
PRM Sash & Furniture	Jonathan Bungay Arnold Pacho
R.M. Velasquez Sash Factory	(none interviewed)
R. Palisoc Furniture Shop	Robe Lopez Donato Lalamoro
Ravil's Furniture	Jeny de Jesus
Real Madrid Sash & Iron Works	Adriatico Terte
Reylen's Furniture & Enterprise	Reynato Agub
RM Dimaandal Woodcraft Corp.	Romeo Bassig
Romulo Jose Shop	(none interviewed)
S.P. Tababa Furniture	Nelson Liwanag
San Francisco Association of Differently Abled Persons	Gary Bucayan Noel Aviso Amado Tablarin
Sarviane Woodcraft	(none interviewed)
T4J Woodwork	Jolifer Trinidad
Thomas Tababa Shop	Edwin Pullido
Tiber Woodcraft	Oscar Adlaon Cecilia Canaña
VM Cepeda Sash	Neserio Salazar
Wilreg Sash & Woodworks	(none interviewed)

Annex D. Manufacturing processes and recommended equipment for the production of builders' woodworks[1]

Product	Process/Operation	Machine
Mouldings	Stock preparation	
	a. Selection of kiln dried lumber (10 – 12% moisture content)	
	b. Blanking	Double-sided thickness planer
	c. Cross-cutting	Radial arm saw/Pendulum-type crosscut saw/Jumping cross cut saw
	d. Ripping	Table saw/Multi-rip saw
	e. Resawing	Band resaw/Table saw
	Machining	Multi-spindle moulder/Shaper/Router
Solid/Panel doors	Material preparation	
	a. Cross cutting	Radial arm saw/Pendulum-type crosscut saw/Jumping crosscut saw
	b. Ripping	Multi-rip saw/Table saw
	c. Four side planing	Jointer/Planer/Multi-spindle moulder
	d. Blanking (optional)	Double-side planer
	Milling	
	a. Boring of nails	Pneumatic double-end boring (end and middle) machine
	b. Boring of stiles	Multi-head horizontal boring machine
	c. Tenoning (dowel)	Single or double-end tenoning machine
	d. Tenoning (Mortise & Tenon)	Band saw/Double-end tenoning machine/Router
	e. Stiles mortising	Hollow chisel mortise/Chain mortise/ Oscillating chisel mortise
	f. Rails profiling	Single or double spindle and stiles shaper
	Raised panel making	
	a. Sawing of boards to thinner boards	Band saw/Table saw
	b. Removing of defects	Table saw
	c. Cutting of boards to uniform thickness before lamination	Jointer/Planer
	d. Grooving of the board sides for placing spline during lamination	Shaper
	e. Lamination of boards	Manual or hydraulic clamps
	f. Sanding of board surface to remove excess glue and to produce final thickness	Wide-belt sander
	g. Board sides profiling	Double-end tenoner/Shaper
	h. Sanding of profiles	Manual sanding
	Sub-assembly of door components	
	Door assembly	Hydraulic press machine
	Finishing	
	a. Sanding	Wide-belt sander
	b. Cut to final dimension	Double-end tenoner/Door-sizing machine/Shaper/Portable sander

[1] Source: Committee for Builders' Woodworks. Philippines recommends for builders' woodworks. Los Baños, Laguna: PCARRD, 1999. 70 p. – (PCARRD Philippines Recommends Series No. 85)

Product	Process/Operation	Machine
Door and window jambs	Raw material preparation (12 – 14% MC for domestic market and 10 -12% for export market)	
	Machining	
	a. Cutting of wood to required length and width	Radial arm saw/Jumping crosscut saw/ Table saw/Multi-rip saw
	b. Making one surface flat and one edge at right angle to the flat surface[a]	Surface planer/Jointer
	c. Cutting the board to the required thickness and width[a]	Thickness planer
	d. Cutting of groove at the back of the board if the jamb is to be installed in concrete wall and cutting of rabbet at the face of the board[a, b]	Shaper/Table saw/Router
	e. Mitering of the jambs during assembly	Radial arm saw/Miter saw/Table saw
	Assembly	
Balusters	Selection of turning stock	
	Ripping	Multi-rip saw
	Surface planing (2 sides)	Planer
	Ripping	Table saw
	Cross cutting	Radial arm saw
	Pre-rounding (optional)	Lathe machine
	Turning	Manually operated lathe machine/Fully automatic copying lathe machine/ Automatic back-knife turning lathe
	Sanding	Manual sanding
Wood tiles	Make one face of the board flat in order to produce a fairly accurate rectangular piece of stock to work from	Jointer
	Cut the board to a specified uniform thickness	Planer
	Cut wood blocks into wood strips	Table saw
	Cut wood strips into wood tiles	Cross-cut saw

[a] Operations b to d can be done in one operation using a multi-spindle moulding machine
[b] For sliding windows, rabbeting at the face of the board is unnecessary

Annex E. Identified Training Needs for Each Firm

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Maglaya's Furniture Shop
Address: Las-ud, Caba, La Union
Name of Respondent (Management) Manuel Maglaya Jr.
Name of Respondent (Worker) Darwin Libatique (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Machine operation Drying <u>As identified by workers</u> Operation/knowledge in woodworking machines	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing Drying of lumber

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurementn Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm:	AJ's Upholstery and Furniture Shop	Name of Respondent (Management)	Josephine B. Tayag
Address:	Brgy. 16 Payas, San Nicolas, Ilocos Norte	Name of Respondent (Worker)	Ricardo Sunga (Rough Milling); Ernesto Eugenio Sr. (Assembly); Noel Tangunan (Sanding and Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Product costing Book keeping	<u>As identified by management</u> Finishing Carpentry Machine operation and maintenance Drying <u>As identified by workers</u> Operation of advanced machines Jig making New finishing materials and application techniques	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurementn Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Pandayan Furniture & Sash Factory

Address: Taft St., Brgy. Pandayan, San Juan, Ilocos Sur

Name of Respondent (Management) Geoffrey Abelanes

Name of Respondent (Worker) Ronnie Rapanut (Finishing); William Noel Poma (Drying); Rafael Ordona (Drying); Nestor Ucente Jr. (Carpentry); Jonathan Fontanilla (Carpentry)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Machine operation Drying Finishing <u>As identified by workers</u> Use of other finishing materials and equipment Carpentry Management Machine operation Drying	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Refresher course on kiln drying operation Finishing techniques Machine design (for fabricated equipment) Material handling, including work-in-progress Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Design and manufacture of jigs

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurementn Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Paul and Angel Sash Factory
Address: Poblacion East, San Ildefonso, Ilocos Sur
Name of Respondent (Management) Sylvano Par
Name of Respondent (Worker) Jovencio Ramos Jr. (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Management Book keeping	<u>As identified by management</u> Machine operation Finishing <u>As identified by worker</u> Operation of woodworking machines Finishing techniques	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Machine design (for fabricated equipment) Machine operation and maintenance Occupational health and safety Finishing (including use of appropriate sanding schedule) 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: JCI Woodcraft
Address: Bacqui, Bacnotan, La Union

Name of Respondent (Management) Crisaldo Ipac
Name of Respondent (Worker) Lito Villanueva (Carpenter); Jason Ibañez (Drying); Ron Ipac (Drying

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Book keeping Accounting Management Contract making Product costing/ pricing	<u>As identified by management</u> Design execution/ interpretation of drawings into full size Values formation Finishing Assembly Kiln dryer operation Safety <u>As identified by workers</u> Operation of modern wood working machines Finishing	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Kiln dryer operation and maintenance Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) Finishing (including use of appropriate schedule) Occupational health and safety 5S Plant lay-outing Materials handling, including work-in-progress

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Bacnotan Furniture Shop
Address: Bacnotan, La Union

Name of Respondent (Management) (none)
Name of Respondent (Worker) Jojo Hernandez (Carpenter); Richard Aguiguin (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
(None interviewed)	<u>As identified by management</u> <u>As identified by worker</u> Construction and assembly technique Operation of modern wood working machines Finishing	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Plant lay-outing Materials handling Drying of lumber Finishing Operation of modern wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Oredina Furniture Shop
Address: Calautit, Bacnotan, La Union
Name of Respondent (Management) Gil D. Oredina
Name of Respondent (Worker) George Ricanor (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping Finishing Product costing Marketing	<u>As identified by management</u> Finishing Machine operation <u>As identified by worker</u> Operation of modern machines Construction and assembly techniques	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) Finishing (including use of appropriate schedule) 5S Plant lay-outing Materials handling, including work-in-progress Proper drying of lumber

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: ALG Furniture
Address: Ili Norte, San Juan, La Union
Name of Respondent (Management) Albert Gaetos
Name of Respondent (Worker) Danilo Biscara (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Drying Book keeping (not computer based)	<u>As identified by management</u> Finishing (sanding techniques) Color combination <u>As identified by worker</u> Upgrading of processing techniques (machining, construction and assembly, finishing)	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Kiln drying operation and maintenance Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) Occupational health and safety Finishing (including use of appropriate schedule) Material handling (including work-in-progress) Design and manufacture of jigs 5S Plant lay-outing

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Alfredo Gumpeng Furniture Shop
Address: Bacsayan, San Juan, La Union
Name of Respondent (Management) Alfredo Gumpeng
Name of Respondent (Worker) Renato Monar (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Book keeping	<u>As identified by management</u> Finishing Assembly Safety <u>As identified by worker</u> Operation and maintenance of modern woodworking machines Kiln dryer operation Production techniques	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Kiln drying operation and maintenance Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) Finishing (including use of appropriate schedule) Material handling (including work-in-progress) Design and manufacture of jigs Plant lay-outing 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Edaren's Furniture Shop
Address: Taboc, San Juan, La Union
Name of Respondent (Management) Benilda Bang-oa
Name of Respondent (Worker) Mardo Bang-oa (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Carpentry Assembly Finishing Wood bending Machine operation <u>As identified by worker</u> Production of high quality finish New finishing techniques/materials	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (including use of appropriate schedule) Material handling (including work-in-progress) Drying of wood 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	R. Palisoc Furniture Shop	Name of Respondent (Management)	Rhodora Palisoc
Address:	#151 Maninding, Sta. Barbara, Pangasinan	Name of Respondent (Worker)	Robe Lopez (Finishing), Donato Lalamoro (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Product costing Marketing Safety Maximization of raw materials Book keeping	<u>As identified by management</u> Finishing Carpentry/ Assembly <u>As identified by worker</u> Finishing Production techniques using appropriate machines	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Materials handling Operation and maintenance of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: JD's Landscaping and Merchandise

Address: Malindong Highway, Binmaley, Pangasinan

Name of Respondent (Management) Joselito Domalanta

Name of Respondent (Worker) Leonardo R. Villanueva Jr.

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Marketing	<u>As identified by management</u> Finishing Assembly/ Carpentry Safety measures <u>As identified by worker</u> Carpentry Operation and maintenance of wood working machines Processing techniques	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing Operation and maintenance of wood working machines 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Real Madrid Sash & Iron Works
Address: Ba-ay, Lingayen, Pangasinan
Name of Respondent (Management) Norman Ysmael Madrid
Name of Respondent (Worker) Adriatico Terte (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Safety measures Book keeping	<u>As identified by management</u> Safety measures <u>As identified by worker</u> Production techniques using modern processing machines	Book keeping/ accounting Occupation health and safety Product costing/pricing Marketing Design/planning (product design, full sizing, execution of designs) Management Production planning and control Contract making	Machine operation and maintenance Finishing Joint construction and assembly Carpentry Drying KD operation Material maximization Wood machining Design and manufacture of jigs Sanding	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Plant lay-out Finishing (including appropriate schedules) Machine operation and maintenance

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	RM Dimaandal Woodcrafts Corp.	Name of Respondent (Management)	Rogelio M. Dimaandal
Address:	Caritan Norte boundary Atulayan, Tuguegarao City, Cagayan	Name of Respondent (Worker)	Romeo Bassig (Shop Supervisor)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Management	<u>As identified by management</u> Upgrading of skills in drying Wood bending Wood working Finishing <u>As identified by worker</u> Operation of modern wood working machines	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Finishing Wood processing Materials handling (including work-in-progress)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Pawig Furniture
Address: Marana, Ilagan, Isabela
Name of Respondent (Management) Moises C. Pawig
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> None <u>As identified by worker</u> None	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	(No operations observed)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Happy Family Wood Industries
Address: Marana, Ilagan, Isabela
Name of Respondent (Management) Prospero dela Cruz
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Quality Control	<u>As identified by management</u> Drying Operation and maintenance of wood working machines Occupational health and safety <u>As identified by worker</u> None	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5s Proper drying and stock piling of lumber Occupational health and safety Operation and maintenance of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: MTB Furniture Shop
Address: Brgy. Bantog, Highway, Roxas, Isabela

Name of Respondent (Management) Isidro Bulanadi
Name of Respondent (Worker) Reynaldo Gutierrez (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Design of products	As identified by management Finishing As identified by worker Product design	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing (use of appropriate finishing schedule)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Northlandia
Address: #26 V. Mapa St. Plaridel Santiago City

Name of Respondent (Management) Paulino M. Tan
Name of Respondent (Worker) Alejandro Lumibao (Over-all Foreman - Wood Products)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Production planning and control Material mgt and inventory control Facilities planning and lay-outing	As identified by management Wood identification Wood quality evaluation Lumber grading Wood machining Wood preservation Wood seasoning Glue lamination of wood Woodworking machine operation & maintenance Finishing facilities operation and maintenance Dry kiln operators course (see back)	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (including appropriate schedules) Operation and maintenance of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
	As identified by worker Wood furniture construction and assembly Design and manufacture of jigs Finishing techniques			Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Cordon Woodwork Furniture Shop
Address: Roxas, Cordon, Isabela

Name of Respondent (Management) Alex Hambon
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping Customer relations Product costing/pricing	<u>As identified by management</u> Finishing Drying <u>As identified by workers</u> (no respondent)	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Machine operation and maintenance (recommended schedule for tool grinding and maintenance)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Limbas Furniture
Address: Capir-piruan, Cordon, Isabela
Name of Respondent (Management) Siegefied In-uyay
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
None	<u>As identified by management</u> Wood preservation <u>As identified by worker</u> (No worker interviewed)	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Proper drying of lumber

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Builder's Mate Enterprises
Address: Turod Sur, Cordon, Isabela
Name of Respondent (Management) Eduardo F. Alacar/Aries Alacar
Name of Respondent (Worker) Roberto Sibayan (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Production planning and control Material management and inventory control Facilities planning and lay-outing	As identified by management Wood identification Wood quality evaluation Lumber grading Wood machining Wood preservation Wood seasoning Glue lamination of wood Woodworking machine operation and maintenance Lumber Dry-Kiln Operators Course Solid wood bending Wood furniture construction and assembly Design and manufacture of jigs Finishing techniques (see back)	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluatio	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (use of appropriate sanding schedule) Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) 5S Plant lay-outing Materials handling (including work-in-progress) Drying of lumber

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
	As identified by workers Carpentry Finishing			Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: M. Camacho Furniture & Woodcrafts
Address: Quirino, Cordon, Isabela
Name of Respondent (Management) Maritess Camacho
Name of Respondent (Worker) Jano dela Vega (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Accounting/Book keeping	<u>As identified by management</u> Drying Finishing Wood treatment <u>As identified by worker</u> Finishing technologies	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (use of appropriate sanding schedule) Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) 5S Proper drying of lumber Materials handling (including work-in-progress)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: ERP Furniture Shop
Address: Purok 6, Sawmill, Villaverde, Nueva Vizcaya
Name of Respondent (Management) Eduardo Pascua
Name of Respondent (Worker) Eduardo Pascua Jr. (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Product costing/ pricing Design of furniture Book keeping/ Accounting	<u>As identified by management</u> Drying Machine operation KD operation <u>As identified by worker</u> Operation of modern machines	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (use of appropriate sanding schedule) Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) 5S Materials handling (including work-in-progress) Proper drying of lumber

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Muebles Ilocandia
Address: Purok 3, Bagahabag, Solano, Nueva Vizcaya
Name of Respondent (Management) Mike Dayson
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Management Dryer operation Design Mixed media	As identified by management Maintenance and operation of wood working machines As identified by worker (No worker interviewed)	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Materials handling Maintenance and operation of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Reylen's Furniture & Enterprises
Address: Bayombong, Nueva Vizcaya
Name of Respondent (Management) Engr. Reynaldo Agub Jr.
Name of Respondent (Worker) Reynato Agub (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Marketing Design Book keeping	<u>As identified by management</u> Finishing Machine operation and maintenance KD operation Jointing <u>As identified by worker</u> Joint construction Operation of new machines	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (use of appropriate sanding schedule) Machine operation and maintenance (including recommended schedule for tool grinding and maintenance)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Bon-bon's Furniture Shop
Address: Masoc, Bayombong, Nueva Vizcaya
Name of Respondent (Management) Raymundo Bulunan
Name of Respondent (Worker) Roberto Guyudan (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Management	<u>As identified by management</u> Finishing Drying Carpentry Wood bending <u>As identified by worker</u> Wood bending Machine operation and maintenance Drying	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Machine operation and maintenance (including recommended schedule for tool grinding and maintenance 5S Proper drying of lumber Materials handling (including work-in-progress)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Hill Crest Sash and Furniture Shop
Address: Masoc, Bayombong, Nueva Vizcaya
Name of Respondent (Management) Braulio A. Corpuz
Name of Respondent (Worker) Ronie Guyudan (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping Product costing	<u>As identified by management</u> Wood working Occupational health and safety Machine maintenance Drying <u>As identified by worker</u> Construction techniques Operation of new machines Wood bending	Book keeping/ Accounting Customer relations Design/planning Facilities planning and lay-outing Management Marketing Product costing and pricing Production planning and control Quality control	Assembly Carpentry Design and manufacture of jigs Drying Finishing Glue lamination Jointing Machine operation and maintenance Material management and inventory control Mixed media construction Operation and maintenance of kiln dryer Wood bending Wood identification Wood machining Wood preservation Wood quality evaluation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (use of appropriate sanding schedule) Machine operation and maintenance (including recommended schedule for tool grinding and maintenance) 5s Proper drying of lumber

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: BCC Woodworks Sash and Furniture
Address: 177 San Miguel, Betis, Guagua, Pampanga

Name of Respondent (Management) Racquel B. Cuenco
Name of Respondent (Worker) Dionisio Adorza Jr. (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Bookkeeping/ Accounting	<u>As identified by management</u> Finishing <u>As identified by worker</u> Antique finish Finishing techniques (special effects)	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing Operation and maintenance of wood working machines 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: PRM SASH & Furniture
Address: San Miguel, Betis, Guagua, Pampanga

Name of Respondent (Management): Pacifico "Paz" Manlutac
Name of Respondent (Worker): Jonathan Bungay (Carpenter); Arnold Pacho (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Advanced finishing techniques Safety measures <u>As identified by worker</u> Full sizing Advanced finishing techniques (Duco)	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: JRD Furniture and Sash
Address: San Matias, Olongapo – Gapan Road, Guagua, Pampanga

Name of Respondent (Management) Johnny David
Name of Respondent (Worker) Lourdes Manansala (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Carpentry Machine operation and maintenance <u>As identified by worker</u> Color combination/ production (mixing)	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Bhoycel Betis Sash & Furniture Shop
Address: San Matias, Dalan Bayan (Olongapo – Gapan Road), Guagua, Pampanga
Name of Respondent (Management) Leonardo Angeles
Name of Respondent (Worker) Abel Serrano (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Finishing <u>As identified by worker</u> Operation of modern woodworking machines Plant lay-outing	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: MCMA Woodworks Sash & Furniture
Address: San Juan Nepomuceno, Olongapo – Gapan Road, Guagua, Pampanga

Name of Respondent (Management) Christina David/Felix David
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Customer relations	<u>As identified by management</u> Finishing Knowledge on dimensions <u>As identified by worker</u>	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Endurance Technology Corporation (E-TECH)
Address: C.M. Recto St., Sun Valley Subd., Mabato, Pulongbulu, City of San Fernando Pampanga

Name of Respondent (Management) Joseph Victor G. Joaquin
Name of Respondent (Worker) Billy Victor (Production/ Operation Supervisor)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping/ accounting	<u>As identified by management</u> Maintenance of CNC machines Occupational health and safety Use of machines <u>As identified by worker</u> Operations of CNC machines Pneumatic and electropnuematic control	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Operation and maintenance of modern wood working machines Safety

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: P.A.G Sash Factory & Woodwork
Address: Sto Cristo Parian Mexico, Pampanga

Name of Respondent (Management) Pablo E. Bondoc
Name of Respondent (Worker) Pablo E. Bondoc (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> None <u>As identified by worker</u> Duco technique in finishing	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: R.M. Velasquez Sash Factory
Address: Sto Cristo, Masangsang, Mexico, Pampanga
Name of Respondent (Management) Roland Velasquez
Name of Respondent (Worker) None interviewed

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Nature of wood Occupational health and safety Management Marketing Productivity improvement	As identified by management None As identified by worker None	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: JB Woods
Address: #472 Sto. Niño, Lagundi, Mexico, Pampanga

Name of Respondent (Management) Joeffrey T. David/Graceton Marie L.David
Name of Respondent (Worker) Fidel Mallari (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping Management	<u>As identified by management</u> Machine operation Occupational health and safety <u>As identified by worker</u> Operation of modern woodworking machines	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: AR Sash Woodworks and Furniture
Address: Sindalan, McArthur Highway, City of San Fernando, Pampanga

Name of Respondent (Management) Ponciano"Marlon" N. Angeles
Name of Respondent (Worker) Rogelio David (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Execution of designs (plans/sketches)	<u>As identified by management</u> Productivity improvement Machine operation Finishing Design (plans/sketches) <u>As identified by worker</u> Operation of modern wood working machines Wood working techniques	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: WILREG Sash&Woodworks
Address: Telabastagan, McArthur Highway, City of San Fernando, Pampanga

Name of Respondent (Management) Wilfredo Tasic
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Design Book keeping	As identified by management None As identified by worker	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Abel David Sash Factory
Address: McArthur Highway, San Pablo, Malolos City
Name of Respondent (Management) Abel S. David
Name of Respondent (Worker) None interviewed

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Occupational health and safety Design execution <u>As identified by worker</u>	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: NSA Furniture
Address: McArthur Highway, San Pablo, Malolos City
Name of Respondent (Management) Gemma G. Alacon
Name of Respondent (Worker) Rogelio Gordora

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Managing a furniture enterprise	<u>As identified by management</u> None <u>As identified by worker</u> Design Modern machine operation and maintenance Finishing	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Derrick Sash Factory
Address: Purok 5, Dakila, Malolos City

Name of Respondent (Management) Ronald Garcia
Name of Respondent (Worker) Antonio Pelagio (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Management of the enterprise	<u>As identified by management</u> Safety <u>As identified by worker</u> Machine operation and maintenance Product design	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	Sarvianie Woodcraft	Name of Respondent (Management)	Herminia Nicolas/Timoteo"Jay" Nicolas
Address:	Longos, McArthur Highway, Malolos City	Name of Respondent (Worker)	None interviewed

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Quality improvement Book keeping	<u>As identified by management</u> Operation of wood working machines <u>As identified by worker</u>	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: T4J Woodwork
Address: Brgy. Lolomboy, Bocaue, Bulacan
Name of Respondent (Management) Teresita S. Cruz
Name of Respondent (Worker) Jolifer Trinidad

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> <u>As identified by worker</u> Good manufacturing practices	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Hans Sash & Furniture
Address: Lolomboy, Bocaue, Bulacan
Name of Respondent (Management) Sherwin Santos
Name of Respondent (Worker) Victor Camarista (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Assembly techniques Cutting of wood Wood working techniques <u>As identified by worker</u> Good manufacturing practices Lay-outing Machine operation and maintenance	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: J. Guanzon Woodcraft
Address: Ilang-ilang, McArthur Highway, Guiguinto, Bulacan

Name of Respondent (Management) Jose Guanzon Jr.
Name of Respondent (Worker) Victor Orlina (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> None <u>As identified by worker</u> Construction/wood working techniques Product design Operation of modern wood working machines	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: King Daniel Sash Factory
Address: Brgy. Longos, McArthur Highway, Malolos City, Bulacan

Name of Respondent (Management) Pacquito L. Salalila
Name of Respondent (Worker) Nestor Cano (Supervisor/Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Management of enterprise Plant lay-outing	<u>As identified by management</u> Finishing Occupational health and safety <u>As identified by worker</u> None	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Material handling Machine design Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: S.P. Tababa Furniture
Address: Purok Masagan, Iba, San Jose, Tarlac

Name of Respondent (Management) Samuel Tababa
Name of Respondent (Worker) Nelson Liwanag (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping Production planning and control	<u>As identified by management</u> Safety measures Operation and maintenance of wood working machines Kiln dryer operation and maintenance (refresher) <u>As identified by worker</u> Operation and maintenance of modern wood working machines Productivity improvement	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Productivity improvement Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Operation and maintenance of wood working machines Finishing Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Thomas Tababa Shop
Address: Maligaya, Riverside, Iba, San Jose, Tarlac

Name of Respondent (Management) Thomas Tababa
Name of Respondent (Worker) Edwin Pullido (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Quality control	<u>As identified by management</u> Operation and maintenance of wood working machines Finishing <u>As identified by worker</u> Finishing Operation of wood working machines	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Materials handling Finishing Operation of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Romulo Jose Shop
Address: Maligaya, Riverside, Iba, San Jose, Tarlac

Name of Respondent (Management) Romulo Jose
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Drying of wood Wood identification	<u>As identified by management</u> Finishing Maintenance of machines Wood identification Drying of wood <u>As identified by worker</u>	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Drying of wood 5S Finishing Maintenance of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Cristal Woodworking Shop
Address: Maligaya, Riverside, Iba, San Jose, Tarlac

Name of Respondent (Management) Angelito Cristal
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping Accounting	<u>As identified by management</u> Finishing Carpentry Operation and maintenance of wood working machines <u>As identified by worker</u>	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Carpentry Finishing Operation and maintenance of wood working machines 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Jonathan Tababa Woodworks
Address: Maligaya, Riverside, Iba, San Jose, Tarlac

Name of Respondent (Management) Jonathan Tababa
Name of Respondent (Worker) Jonjon Tababa (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Finishing Carpentry <u>As identified by worker</u> Finishing	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Finishing Carpentry

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Phel's Furniture and Sash Factory
Address: Barangay Nambalan, Mayantoc, Tarlac
Name of Respondent (Management) Teofilo Bacho
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Finishing Assembly Operation and maintenance of wood working machines Safety measures <u>As identified by worker</u> (none interviewed)	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing Assembly Operation and maintenance of wood working machines Materials handling 5S Safety measures

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Ravil's Furniture
Address: Barangay Nambalan, Mayantoc, Tarlac
Name of Respondent (Management) Dominador Reyes
Name of Respondent (Worker) Jeny de Jesus (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Product pricing and costing Book keeping Marketing	<u>As identified by management</u> Operation and maintenance of wood working machines Finishing <u>As identified by worker</u> Finishing	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Finishing Operation and maintenance of wood working machines Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Bañaga Woodworks
Address: Barangay Nambalan, Mayantoc, Tarlac

Name of Respondent (Management) Ronnie Bañaga
Name of Respondent (Worker) Ronnie Bañaga Jr. (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Product pricing/ costing	<u>As identified by management</u> Finishing Jointing <u>As identified by worker</u> all aspects of production	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Bueno Furniture
Address: Barangay Nambalan, Mayantoc, Tarlac

Name of Respondent (Management) Arturo Bueno
Name of Respondent (Worker) Alfredo Briones (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Product design	<u>As identified by management</u> Finishing <u>As identified by worker</u> Operation and maintenance of wood working machines	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Operation and maintenance of wood working machines Finishing

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Ariel Furniture Shop
Address: Barangay Nambalan, Mayantoc, Tarlac

Name of Respondent (Management) Arnold Reyes
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Finishing Safety measures <u>As identified by worker</u>	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Materials handling Finishing Safety measures

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Emariel Furniture
Address: Barangay Nambalan, Mayantoc, Tarlac
Name of Respondent (Management) Rex Santiago
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Carpentry Finishing Drying <u>As identified by worker</u>	Assembly Book keeping/ Accounting Carpentry Customer relations Execution of designs/ plans/sketches Facilities planning and lay-outing Finishing Machine operation and maintenance Management Occupational health and safety Proper dimensions Quality control Sanding	Design/planning (full sizing) Facilities planning and lay-outing Finishing techniques Machine operation and maintenance Operation of CNC machines, pneumatic and electro-pneumatic controls Operation of modern wood working machines Quality control Wood working techniques	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Carpentry Finishing Materials handling 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Ducay Furniture and Woodcrafts
Address: 2408 Barangay Del Remedios, San Pablo City
Name of Respondent (Management) Filemon Ducay
Name of Respondent (Worker) Jesus M. Tamayo (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Marketing Book keeping	<u>As identified by management</u> Lamination Jointing Wood working Finishing Machine maintenance <u>As identified by worker</u> Drying	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification (see back)	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Material handling Drying of lumber Operation and maintenance of wood working machines Finishing (including appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Wood machining Wood treatment Wood working	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Belen Woodworks
Address: Barleta Subdivision, Barangay VI-E, San Pablo City

Name of Respondent (Management) Robledo Dazo Belen
Name of Respondent (Worker) Benito Villaforte (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Marketing	<u>As identified by management</u> Operation and maintenance of wood working machines Quality control <u>As identified by worker</u> Machine operation	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification (see back)	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Operation and maintenance of wood working machines Drying of lumber Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Wood machining Wood treatment Wood working	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	VM Cepeda Sash	Name of Respondent (Management)	Eduardo Cepeda
Address:	National Highway, Barangay Calo, Bay, Laguna	Name of Respondent (Worker)	Neserio Salazar (Carpenter/Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Operation and maintenance of wood working machines Wood carving <u>As identified by worker</u> Operation of modern wood working machines Modern finishing techniques	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification (see back)	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Drying of lumber Materials handling Maintenance and operation of wood working machines Finishing (including appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Wood machining Wood treatment Wood working	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: A & A Woodcraft
Address: National Highway, Barangay San Ignacio, San Pablo City
Name of Respondent (Management) Arwin Alemagno
Name of Respondent (Worker) Manuel Laagbay (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Marketing	<u>As identified by management</u> Operation of modern wood working machines Drying Finishing Jointing <u>As identified by worker</u> Drying of wood	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification (see back)	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Drying of lumber Finishing (including appropriate schedules) Materials handling 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Wood machining Wood treatment Wood working	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Pasajol Woodcraft
Address: Barangay San Vicente, San Pablo City

Name of Respondent (Management) Renato P. Pasajol
Name of Respondent (Worker) Jimmy Plasino Sr. (Foreman)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Marketing	<u>As identified by management</u> Wood working Jointing Finishing Carpentry <u>As identified by worker</u> None	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification (see back)	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Materials handling Drying of lumber Finishing (including appropriate schedule)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Wood machining Wood treatment Wood working	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Coligian's Furniture Shop
Address: Barangay Ibabang, San Roque, Liliw, Laguna
Name of Respondent (Management) Diego Malabon/Roxanne Coligado Cruz
Name of Respondent (Worker) Joel Malabon (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Drying Jointing Finishing Wood identification Wood treatment <u>As identified by worker</u> Drying Carpentry Finishing	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification Wood machining Wood treatment Wood working	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Drying of lumber Materials handling Operation and maintenance of wood working machines Finishing (including appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Los Baños Wood & Iron Works
Address: National Highway, Maahas, Los Baños, Laguna
Name of Respondent (Management) Alberto Batino
Name of Respondent (Worker) Carlos Salazar (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Product design	<u>As identified by management</u> Design Equipment maintenance Measurement <u>As identified by worker</u> None	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification Wood machining Wood treatment Wood working	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Proper drying of lumber Materials handling Operation and maintenance of wood working machines Finishing (including appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Carpenter's Woodcraft
Address: National Highway, Macabling, Sta. Rosa, Laguna
Name of Respondent (Management) Felicisima C. Comia
Name of Respondent (Worker) Christopher Caido (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
None	<u>As identified by management</u> Wood machining Glue lamination of wood Operation and maintenance of wood working machines <u>As identified by worker</u> Operation and maintenance of modern wood working machines Design	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification Wood machining Wood treatment Wood working	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing (including appropriate schedules) Operation and maintenance of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Pagsanjeño Sash Factory
Address: Barangay Biñan, Pagsanjan, Laguna
Name of Respondent (Management) Job Quizon
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
None	<u>As identified by management</u> Handling of kiln dried wood Finishing <u>As identified by worker</u> (None interviewed)	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification Wood machining Wood treatment Wood working	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Drying of lumber Finishing Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Flores Sash and Iron Works
Address: National Highway, Barangay Labuin, Sta. Cruz, Laguna
Name of Respondent (Management) Napoleon Flores
Name of Respondent (Worker) Edgar Abary (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Managing a business Book keeping	<u>As identified by management</u> Time management Housekeeping <u>As identified by worker</u> Operation of modern wood working machines	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification Wood machining Wood treatment Wood working	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Materials handling Maintenance and operation of wood working machines Finishing (including appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Casa Antigo Furniture
Address: National Highway, Barangay Antipolo Labuin, Sta. Cruz, Laguna

Name of Respondent (Management) Nestor C. Punzalan
Name of Respondent (Worker) Gilbert Punzalan (Foreman)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
Book keeping Production management	<u>As identified by management</u> Operation of modern wood working machines <u>As identified by worker</u> Operation and maintenance of wood working machines	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification Wood machining Wood treatment Wood working	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Operation and maintenance of wood working machines Finishing (including appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Antigong Kahoy
Address: Barangay Highway, Sitio Natipolo, Barangay Labuin, Sta. Cruz, Laguna
Name of Respondent (Management) Redante Porca
Name of Respondent (Worker) Ezequiel Hebio (Carpenter/Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping Accounting	<u>As identified by management</u> Carpentry Operation and management of wood working machines <u>As identified by worker</u> Operation of modern wood working machines New tehnologies in wood processing	Accounting Book keeping Managing a business Marketing Product design Production management	Carpentry Design Drying of wood Equipment maintenance Finishing Glue lamination of wood Handling of kiln dried wood Housekeeping Jointing Lamination Measurement Modern finishing techniques New technologies in wood processing Operation and maintenance of wood working machines Quality control Time management Wood carving Wood identification Wood machining Wood treatment Wood working	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Finishing (including appropriate schedules) Operation and maintenance of wood working machines Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Jaime Detera Woodworks
Address: Purok Magsaysay, Buhatan, Sorsogon City

Name of Respondent (Management) Jaime Detera
Name of Respondent (Worker) Domingo Leoncito (Carpenter); Rico Lanuza (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None identified	<u>As identified by management</u> None identified <u>As identified by worker</u> Operation and maintenance of wood working machines New construction and assembly techniques Use of new finishes/ materials for exterior finishing Use of new finishing equipment	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction (see back)	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Ideas Construction Supply
Address: Ariman, Gubat, Sorsogon

Name of Respondent (Management) Purisima Encinares
Name of Respondent (Worker) Gerry Pallien (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Wood working techniques Safety <u>As identified by worker</u> Plant lay-out Housekeeping Operation of modern wood working machines Construction and assembly techniques	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction (see back)	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Perry Furniture Shop
Address: Burabod, Bacon District, Sorsogon City
Name of Respondent (Management) Christopher Bunoan Sr.
Name of Respondent (Worker) Eduardo Preyu (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Machining Refresher course on jointing Machine operation Safety Finishing techniques (latest trends, upgrading/advanced) <u>As identified by worker</u> New designs Joint construction and assembly techniques Operation and maintenance of modern wood working machines	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction (see back)	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Dinglasan Unique Woodworks
Address: Pongco, Bacon District, Sorsogon City
Name of Respondent (Management) Salvador Dinglasan
Name of Respondent (Worker) Reynato G. Pura (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Book keeping	<u>As identified by management</u> Resin lamination (including equipment) Safety Advance finishing techniques <u>As identified by worker</u> Modern production techniques	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction (see back)	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	Antonio Deocareza Furniture Shop	Name of Respondent (Management)	Antonio Deocareza
Address:	Amador St., Bacon District, Sorsogon	Name of Respondent (Worker)	Carlos Dioneda (Carpenter); Danilo Furio (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Management Book keeping	<u>As identified by management</u> Safety <u>As identified by worker</u> None	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction (see back)	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Ely Dreu Furniture Shop
Address: Narra St., Sts. Peter & Paul Ville Subd., Bibincahan, Sorsogon City

Name of Respondent (Management) Ely Dreu
Name of Respondent (Worker) Roland Griante (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Finishing <u>As identified by worker</u> Operation and maintenance of wood working machines Safety Turning/Production of turned products	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction (see back)	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Andres Guardian Furniture Shop
Address: Garcia Compound, Cogon, Bibincahan, Sorsogon City
Name of Respondent (Management) Andres Guardian
Name of Respondent (Worker) Miguel Dumitita (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Safety Machine operation Upgrading of finishing techniques <u>As identified by worker</u> Shop management Play lay-out	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Barja's Furniture
Address: Zone 2, San Vicente, Tabaco City

Name of Respondent (Management) Surec Barja
Name of Respondent (Worker) Rex Barja (Carpenter); Edwin Villegas, Marlon Villegas (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None identified	<u>As identified by management</u> <u>As identified by worker</u> Operation of modern wood working machines Improvement on working techniques Kiln drying Special effects finishing Operation of new finishing equipment (i.e. airless spray gun) New mixing techniques/ new finishes	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Wood seasoning/drying Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: MC Dioneda Furniture
Address: Purok 5, San Antonio, Tabaco City
Name of Respondent (Management) Ronald Dioneda
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Techniques in wood working Safety <u>As identified by worker</u> None interviewed	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Duroy Furniture
Address: San Lorenzo, Tabaco City

Name of Respondent (Management) Herminia Duroy
Name of Respondent (Worker) Vicente Belisario (Carpenter); Arwin Brutas (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Furniture design	<u>As identified by management</u> Carpentry <u>As identified by worker</u> Assembly methods and other construction techniques Operation of modern basic wood working machines Finishing techniques	Accounting/Book keeping Advanced/new finishing techniques Basic carpentry Design and manufacture of jigs Design/Planning Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation Machine operation and maintenance Management Mixed media construction	Assembly Design/planning Drying Facilities planning & lay-outing Finishing Jointing Kiln dryer operation Machine operation and maintenance Management Wood bending Wood machining Wood preservation	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Drying/seasoning of wood Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
		Quality Control Safety Wood bending Wood identification Wood preservation Wood quality evaluation Wood seasoning		Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Kimas Furnishing
Address: Lacson St., Brgy. Mandalagan, Bacolod City

Name of Respondent (Management) Esterlina Geduriagao
Name of Respondent (Worker) Levy Benejol (Carpentry); Johnny Garolacan (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None identified	<u>As identified by management</u> Safety Machine operation and maintenance Carpentry <u>As identified by worker</u> New finishing techniques Machine operation (use of modern equipment) New products	None	Assembly Carpentry Finishing Joint construction and assembly Machine operation and maintenance, including use of modern equipment New designs New finishing techniques and materials Safety measures	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Drying Finishing Materials handling Operation and maintenance of wood working machines Occupational health and safety 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Bulwanganon Trading
Address: Florenceville Subdivision, Brgy. Pahanocoy, Bacolod City

Name of Respondent (Management) Humberto Franco Navarro
Name of Respondent (Worker) Joseph Amshid (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None identified	<u>As identified by management</u> Safety measures Carpentry (waste minimization) <u>As identified by worker</u> New designs	None	Assembly Carpentry Finishing Joint construction and assembly Machine operation and maintenance, including use of modern equipment New designs New finishing techniques and materials Safety measures	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Good housekeeping Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Drying/seasoning of wood Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm:	New Nelson's Furniture	Name of Respondent (Management)	Donny Uy Co
Address:	Brgy. 31, Lopez Jaena St., Bacolod City	Name of Respondent (Worker)	Federico Alequiza (Carpenter); Ernie Villa (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None identified (but still eager to learn)	<u>As identified by management</u> Machine operation Assembly Finishing Wood working machine operation Safety <u>As identified by worker</u> Operation of modern wood working machines New finishing techniques and materials	None	Assembly Carpentry Finishing Joint construction and assembly Machine operation and maintenance, including use of modern equipment New designs New finishing techniques and materials Safety measures	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Materials handling Operation and maintenance of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	John Rey's Furniture and Lumber	Name of Respondent (Management)	Jerry Tana
Address:	Lopez Jaena St., Bacolod City	Name of Respondent (Worker)	John Rey Timtim (Carpenter); Ritchie Pasale (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None identified	<u>As identified by management</u> None <u>As identified by worker</u> Operation of modern wood working machines Joint construction and assembly New finishing materials and application techniques	None	Assembly Carpentry Finishing Joint construction and assembly Machine operation and maintenance, including use of modern equipment New designs New finishing techniques and materials Safety measures	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Finishing (including appropriate schedules) Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: ABC Lumber and General Merchandise
Address: Upper Mohon, Talisay City, Cebu
Name of Respondent (Management) Antonio Lim
Name of Respondent (Worker) Joseph Nebria (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Operation of wood working machines Preventive/Safety measures <u>As identified by worker</u> Kiln drying operations Operation of wood working machines	None	Kiln drying operations Operation of wood working machines Preventive/Safety measures	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Operation and maintenance of wood working machines Finishing (including appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
				Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: L. Orongan Enterprises
Address: Andaya Subd. Purok 5 Brgy.17 Quirino St. Butuan City
Name of Respondent (Management) Lemuel G. Orongan
Name of Respondent (Worker) Dodong Salazar (Head Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Waste minimization Quality maintenance	<u>As identified by management</u> Finishing Systematic assembly Waste minimization Quality maintenance <u>As identified by worker</u> Operation of modern/ basic wood working machines Use of new finishes	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Occupational health and safety Machine operation and maintenance (recommended schedule for tool grinding and maintenance) Proper handling of work-in-progress Finishing techniques (including sanding techniques)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: New JB Home Center & Lumber Dealer
Address: Purok 2E, Amapayon, Butuan City

Name of Respondent (Management) Josephine Refrado Bulawan
Name of Respondent (Worker) Rene Montes (Finishing)
Jeorge Dumagcoy (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Quality Control Marketing Management	<u>As identified by management</u> Finishing <u>As identified by worker</u> Operation of modern wood working machines Proper construction methods Safety Maintenance	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Operation and maintenance of wood working machines Safety measures 5S Finishing (including use of appropriate schedules)

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: FEMS Enterprises
Address: Baladad Compound, Libertad, Butuan City

Name of Respondent (Management) Felixberto Saba
Name of Respondent (Worker) Jaime Cinco/Godofred Seit (Carpenter); Roger Felitro (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Marketing	<u>As identified by management</u> Basic to advanced finishing Machine operation <u>As identified by worker</u> Wood processing techniques Use of modern woodworking machines Finishing (latest techniques, including other types of finishing materials)	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Operation and maintenance of wood working machines Finishing Safety measures 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: San Francisco Association of Differently Abled Persons MPC
Address: Sitio Damilag, Pisaan, San Francisco, Agusan del Sur
Name of Respondent (Management) Rolando T. Ordoña
Name of Respondent (Worker) Gary Bucayan (Carpenter); Noel Aviso (Finishing); Amado Tablarin (Kiln dryer)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Office management	<u>As identified by management</u> Finishing Jointing Operation and maintenance of wood working machines Wood properties <u>As identified by worker</u> Any additional information related to builders' wood works production Maintenance of wood working machines	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Kiln drying operations Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm: Prime Pacific Ventures
Address: Purok Lanzones, Barangay San Vicente, Butuan City

Name of Respondent (Management) Winston A. Guillen
Name of Respondent (Worker) Manolito G. Laurante (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Personnel management	<u>As identified by management</u> Wood lamination Finishing Construction of knock-down components <u>As identified by worker</u> Operation and maintenance of modern wood working machines Good manufacturing practices	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Materials handling Operation and maintenance of wood working machines Finishing

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	Morales Mini Lumber & Furniture	Name of Respondent (Management)	Elena Morales
Address:	Jose Rizal St., Nasipit, Agusan del Sur	Name of Respondent (Worker)	Glenn Bitco (Carpenter); Jerson Morales (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Management Production of builders' wood works	<u>As identified by management</u> Machining Finishing Full sizing <u>As identified by worker</u> Design Maintenance and operation of modern wood working machines Finishing (materials, methods/ techniques)	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Plant lay-outing Materials handling Operation and maintenance of wood working machines

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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Training Needs Analysis for the Builders Woodworks Industry in the Philippines

SUMMARY OF SURVEY RESULTS

Name of Firm: Bohol Furniture
Address: Matabaw, National Highway, Buenavista, Agusan del Norte

Name of Respondent (Management) Julieta Bohol
Name of Respondent (Worker) None

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Finishing Assembly <u>As identified by worker</u>	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	5S Operation and maintenance of wood working machines Materials handling Finishing

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Cabuguas Sawmill & Furniture
Address: Purok 2, Barangay 4, Buenavista, Agusan del Norte
Name of Respondent (Management) Primo Cabuguas
Name of Respondent (Worker)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Operation and maintenance of wood working machines	<u>As identified by management</u> Finishing Carpentry Operation and maintenance of wood working machines <u>As identified by worker</u> (None interviewed)	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Finishing Operation and maintenance of wood working machines 5S Materials handling

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

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SUMMARY OF SURVEY RESULTS

Name of Firm:	Morning Star Marketing	Name of Respondent (Management)	Alexander P. Goles
Address:	Motorpool, Tupod, Surigao del Norte	Name of Respondent (Worker)	Allan Nabo (Finishing); Candido Lasota Jr. (Carpenter)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
Personnel management (time management) Values formation Product design	<u>As identified by management</u> Operation and maintenance of wood working machines Values formation Solid wood bending Product design <u>As identified by worker</u> Operation and maintenance of wood working machines Tool maintenance	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Operation and maintenance of wood working machines Finishing 5S Plant lay-outing Assembly/Jointing techniques

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

SUMMARY OF SURVEY RESULTS

Name of Firm: Tiber Woodcraft
Address: 341 San Vicente St., Binkilan, Butuan City
Name of Respondent (Management) Reynaldo G. Cu
Name of Respondent (Worker) Oscar Adlaon (Carpenter); Cecilia Canaña (Finishing)

TRAINING NEEDS IDENTIFIED						
BY FIRM		**REGION**		**NATIONWIDE**		**BASED ON STANDARDS**
Management	**Worker**	**Management**	**Worker**	**Management**	**Worker**	
None	<u>As identified by management</u> Upgrading of skills in all aspects of production <u>As identified by worker</u> Operation and maintenance of wood working machines Tool maintenance Application techniques for water-based finishes Techniques in use of paints	Management Marketing Office management Operation and maintenance of wood working machines Personnel management Product design Production of builders' wood works Quality Control Quality maintenance Time management Values formation Waste minimization	Assembly Carpentry Construction of knock-down components Design Finishing (latest techniques, including other types of finishing materials) Full sizing Good manufacturing practices Jointing Machining Operation and maintenance of wood working machines Product design Proper construction methods Quality maintenance Safety	Accounting Advanced/new finishing techniques Assembly Book keeping Carpentry Contract making Customer relations Design and manufacture of jigs Design/planning (product design, full sizing, execution of designs) Facilities planning and lay-outing Finishing Finishing facilities operation & maintenance Glue lamination Jointing KD operation	Carpentry Design and manufacture of jigs Design/planning (full sizing) Drying of wood Equipment maintenance Facilities planning & lay-outing Finishing (latest techniques, including other types of finishing materials) Full sizing Glue lamination Good manufacturing practices Handling of kiln dried wood Housekeeping Joint construction and assembly	Operation and maintenance of wood working machines 5S

TRAINING NEEDS IDENTIFIED						
BY FIRM		REGION		NATIONWIDE		BASED ON STANDARDS
Management	Worker	Management	Worker	Management	Worker	
			Solid wood bending Systematic assembly Tool maintenance Upgrading of skills in all aspects of production Values formation Waste minimization Wood lamination Wood processing techniques Wood properties	Machine operation and maintenance Management Marketing Mixed media construction Occupation health and safety Office management Operation and maintenance of wood working machines Personnel management Product costing and pricing Product design Production management Production of builders' wood works Production planning and control Quality control Quality maintenance Safety Sanding Time management Values formation Waste minimization Wood bending Wood identification	Operation and maintenance of modern equipment Material management and inventory control Measurement Mixed media construction New designs New technologies in wood processing Operation and maintenance of kiln dryer Preventive/Safety measures Product design Proper construction methods Quality control Safety Solid wood bending Time management Tool maintenance Values formation Waste minimization Wood carving Wood identification Wood lamination Wood machining Wood preservation Wood processing techniques Wood properties Wood quality evaluation	

ANNEX F. Project Proposal on Capacity Building for the Builders' Woodworks Industry in the Philippines

Part 1. Project Context

1.1 Origin

In 2008 to 2009 a pre-project entitled "Training Needs Analysis for Builders' Woodworks Industry in the Philippines" [PPD 133/07 Rev. 1(I)] was implemented by the Forest Products Research and Development Institute (FPRDI). The Pre-project's development objective was to determine the training needs of the builders' woodworks industry in the country. It had two specific objectives, namely:

1. To determine the current level of skills and identify required standards for each position/level in the builders' woodworks industry; and
2. To determine training needs of the builders' woodworks industry by identifying gaps between required standards and current skills level.

Several observations were made of the builders' woodworks industry in the Philippines by the pre-project:

- The builders' woodworks industry in the Philippines is made up mostly of micro and small scale enterprises with only a handful of medium and large-scale enterprises. As such, most of the workers of the industry are poorly trained and lack the necessary skills. Consequently the quality of products is low and cost of production is high.

- Surprisingly most of the factories visited during the survey in the pre-project are registered with the Treasurer's Office of the municipality and have a Mayor's permit to operate.

- Almost all of the workers in the micro and small-scale firms did not have any formal training on the task that they are currently performing**.** Most started as assistants, acquiring some skills in the course of their employment.

- Most jobs by the small producers are on a contract basis. The owner of the firm contracts to the worker the production of builders' woodworks items. As such the worker performs all the tasks necessary to complete the production of one item. He selects the materials to be used from available wood materials in the shop, performs all machining operations, assembles the various parts of the item, performs sanding and applies finishes.

- The owners of the shop normally perform quality control in every phase of production.

- There are very few safety measures implemented within the work place. Wastes such as sawdust, shavings and trimmings are not regularly disposed of and most shops are fire-hazards. Few shops have fire extinguishers. Owners of shops claim that they provide protective gadgets such as masks to their workers but the latter refuse to wear them, they are not used to wear one and they feel uncomfortable.

- Some shops employ women to perform certain tasks such as sanding and application of finishes.

- Producers of builders' woodworks are generally not organized nor have industry associations. The implications are poor access to capital raw materials and technical information/technologies as well as very insufficient product promotion and market opportunities. Complementation between and among firms/shops does not seem to exist.

- Most workers do not possess the necessary skills to produce high quality products, incurring some wastes thus cost of production is higher than necessary.

- Improving the quality of products of the greater number of builders' woodworks manufacturers would require massive and sustained capability building of workers in the industry. This will also require convincing the industry owners of the benefits that their enterprises will get if their workers undergo capacity building.

- A full-scale project to follow up and build on the results of the pre-project is recommended to improve the knowledge and skills of workers in the builders' woodworks industry. Expectedly this will result in the improvement of the quality of products, reduce manufacturing cost and enhance over-all productivity which would usher in better opportunities for Philippine builders' woodworks products, in the local and international markets.

1.2 Relevance

1.2.1 Conformity with ITTO's objectives and priorities

This project addresses the objectives c, f and i of ITTO, namely:

- to contribute to the process of sustainable development;

- to improve and support research and development with a view to improving forest management and efficiency of wood utilization as well as increasing the capacity to conserve and enhance other forest values in timber producing tropical forests; and

- to promote increased and further processing of tropical timber from sustainable sources in producing member countries with a view to promoting their industrialization and thereby increasing their employment opportunities and export earnings.

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

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

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

- Organize workshops/seminars on the use of new and/or improved techniques and technology, including increased further processing

- Undertake sector-wide training needs analyses; development of training strategies, training facilities and course curricula; preparation of training manuals and delivery of training courses

- Improve institutional efficiency and effectiveness through sector-wide training needs analyses; develop training strategies, training facilities and course curricula; prepare training materials; and deliver training courses.

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

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

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

1.2.2 Relevance to the submitting country's policies

There are a number of policies in the forestry sector and the national development agenda that are relevant to the forest-based industry relative to forest products utilization and affecting the wood-based industries. Among these are:

- In 1991, the Department of Environment and Natural Resources (DENR) issued Administrative Order No. 24 Series of 1991[2] banning the harvesting of timber from the old-growth forest and transferring the harvesting to the second growth forest. Timber harvesting is also banned in areas with slopes greater than 50% and in elevations of 1,000 meters and higher. The consequence of this Order is the reduction of the forest production area and the reduced volume of harvested timber annually.

[2] DENR AO No. 24 Series of 1991.

- Ban on the export of logs harvested from the natural forest and a ban on the export of lumber derived from naturally grown logs.

- Unlimited export of logs coming from plantation forests.

- Plantation logs are exempt from payment of forest charges (taxes on logs).

- The strategic measures for Philippine industries as embodied in the Medium Term Philippine Development Plan (MTPDP) up to 2010 is to mobilize and disseminate knowledge to upgrade technologies and increase productivity of industries.

- It is also the aim of the MTPDP to increase the value of Philippine exports to US$50 billion by tapping new industries and new markets, developing more competitive export products and services and maximizing opportunities through bilateral and multilateral agreements. Toward this direction, compliance with internationally-recognized products and services standards to ensure that construction materials are globally competitive in quality shall be promoted.

- In science and technology the strategy direction of the MTPDP is to use information and capability building to create value-adding, enhance productivity and competitiveness. Technical progress and the pursuit thereof, shall be institutionalized and sustained, which can lead to the sustained increase in incomes.

- In labor and employment, the MTPDP is cognizant that the workers are the country's comparative advantage and that there is a continuing need to sustain this advantage by adopting educational, training, and technical/vocational programs that will make labor supply more elastic. In this context, the MTPDP advocates that technical/vocational training programs shall be continuously improved to meet the critical skills needed in a globalizing economy, as identified through industry signals. For skills training to be of any use, standards for skills certification and assessment of competencies shall be developed based on international standards.

1.3 Target Area

1.3.1 Geographic location

Respondents for the survey conducted for the pre-project PPD 133/07 Rev. 1(I) *Training Needs Analysis for the Builders' Woodworks Industry in the Philippines* were from Regions I, II, III, IV-A and V in the island of Luzon; Regions VI and VII in the Visayas and Region XIII in the island of Mindanao. Target beneficiaries for the project shall be coming from these regions, specifically from the following provinces:

- Region I – Ilocos Norte, Ilocos Sur, La Union, Pangasinan
- Region II – Cagayan, Isabela, Nueva Vizcaya
- Region III – Tarlac, Pampanga, Bulacan

- Region IV-A – Laguna, Rizal
- Region V – Camarines Sur, Albay, Sorsogon
- Region VI – Negros Occidental
- Region VII - Cebu
- Region XIII – Agusan del Norte, Surigao del Norte

Figure 1 shows the location of the identified target areas.

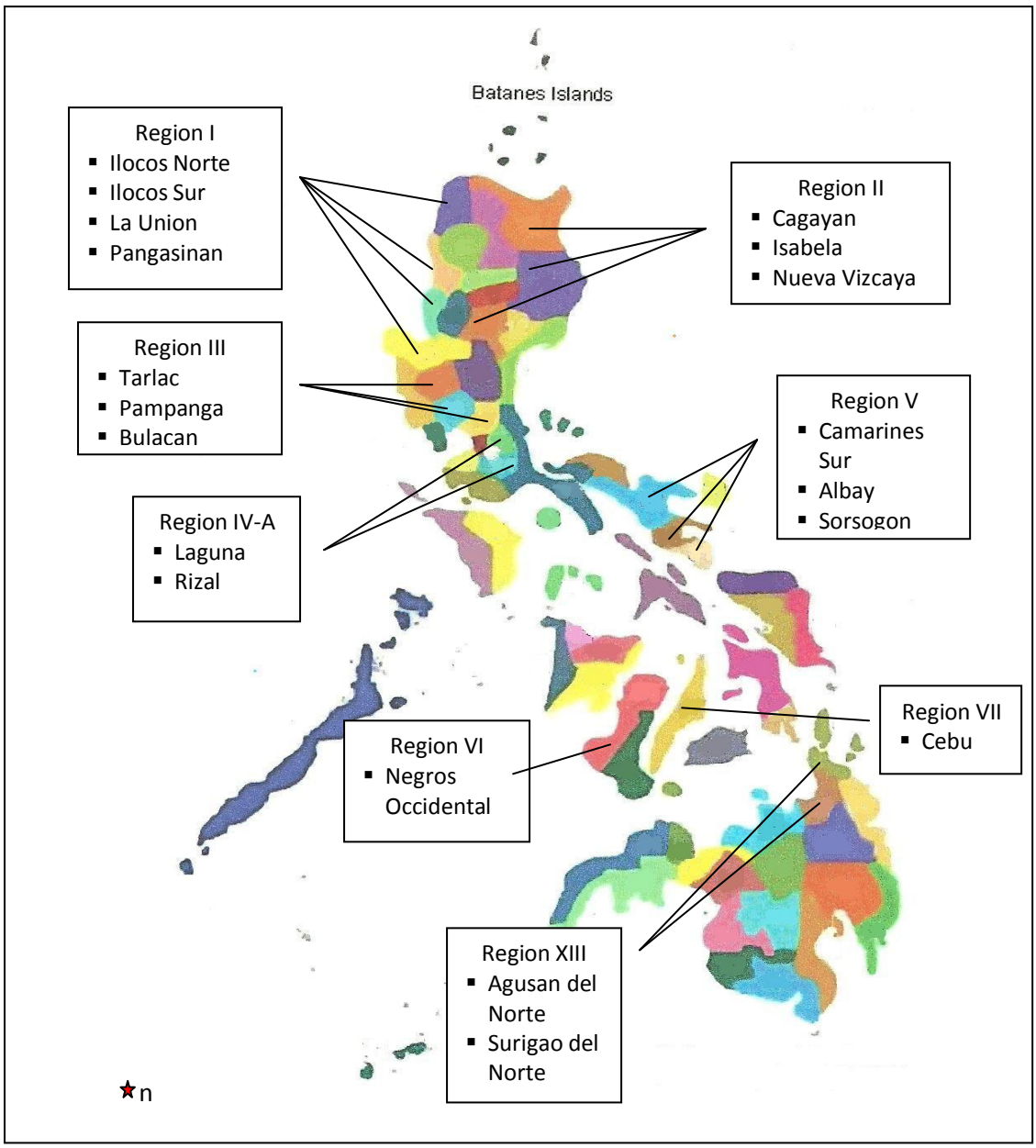


Fig. 1 Proposed project locations

1.3.2 Social, cultural, economic and environmental aspects

Builders' woodworks are one of the categories of secondary processed wood products (SPWP). These are made up of joinery and carpentry of wood such as doors, door jambs, windows, window jamb, mouldings, balusters, stairs and railings, shingles and shakes, assembled parquets and shuttering for concrete construction.

Exports of SPWP have been expanding steadily since the 1990s. In 2005 the value of SPWP exports worldwide was estimated at US$10.3 billion. The major producers of SPWP are Indonesia, Malaysia, Brazil, Thailand and Mexico accounting for 89% of total exports of ITTO producing countries. China remains the largest exporter of SPWP worldwide.

In 2005 the Philippines exported only about US$ 107 million worth of builders' woodworks. While this value increased dramatically to US$ 742.01 million in 2007 or an eight-fold increase this amounts to only 7.5 % of the total value based on 2005 total world export value of US$9.9 billion. Accordingly only 35 companies that are exporting are registered with the Board of Investments (BOI). This is a very small fraction of the estimated total number of companies manufacturing builders' woodworks.

In addition to export potential, there are also further opportunities from local markets. There is no estimate how large the local market is but it is expected to be extensive. In 2007, the Philippines imported about US $ 7 M worth of builders' woodworks. The large world and domestic market for builders' woodworks presents a good opportunity for the development of the industry.

As has been shown in the pre-project, the builders' woodworks sector of the secondary wood-using industry in the Philippines is made up mostly of micro and small enterprises with few medium and large companies. They are distributed all over the country with concentrations in municipalities close to large concentration of populations such as cities and urbanizing centers. The micro and small enterprises have provided mainly economic activities where they are found and provided social benefits to local residents.

Data on the total number of establishments in all-size categories along with corresponding work force have not been updated lately and remain unavailable. However, calculated estimates based on familiarity and years of association and working relationship with the secondary wood processing industries would indicate that the number of builders' woodworks manufacturers can reach no less than 4,000 dispersed throughout the country. Beneficiaries consisting of direct manpower engagements with their dependents together with the people responsible in manufacturing inputs like materials, equipment and services can run up to half a million.

In addition to providing direct employment, though limited in scale per enterprise, it is providing other economic benefits. It has been observed during the visits of industry members during the pre-project that where there are these

enterprises other ancillary activities take place. Close by are eateries that provide food to the employees or workers of these establishments; such eateries, though however small they are, provide additional income to the entrepreneur. In turn, these eateries are outlets of products of small farmers such as vegetables and poultry products. The workers of the builders' woodworks establishments also need to travel from their homes to their place of work. This gives business to operators of different modes of transport in the areas.

In another dimension, the production of builders' woodworks provides the opportunity to use lower quality plantation grown wood such as fast growing species for the production of higher value products that could compete in the world markets. The use of forest plantations to meet construction requirements has allowed the conservation of the natural forest resources. Furthermore, the presence of markets for plantation grown species encourages small-hold tree farmers to establish tree plantations**.** A previous ITTO funded project implemented at FPRDI has shown that a potential use of lesser-used species is in the manufacture of builders' woodworks. The use of lesser-used species expands the resource base and promotes the conservation of the more commonly-used commercial species.

Many of the builders' woodworks products such as mouldings, components of panel doors and windows are small and narrow. This permits the use of trimmings and edgings from the production of larger products such as wood panels that would have otherwise been thrown away as wastes thus further contributing to the conservation of forest resources.

The builders' woodworks industry has also been providing certain social benefits. Many women are employed in certain aspects of production. Managers prefer women in such tasks as sanding prior to application of finishes. Women are more patient and are observed to apply the finishes more evenly on the surface of wood products. They are also employed in the repair of defects such as cracks; they apply putty, sand the surface and apply the finishes.

Another social benefit generated by the builders' woodworks, as in other enterprises, is that employees are able to send their children to school. Their salaries, though meager, is sufficient enough to support their children's education even if it is only up to the primary or secondary level. In addition, the children have better nutrition because of the income provided the workers' employment in the industry.

1.4 Expected outcomes at project completion

The project is expected to raise the level of skills of workers and managers of builders' woodworks enterprises in operating wood-working machines, apply new methods of processing wood and on the management side, apply standard systems of personnel management and of keeping books. This will lead to higher quality products, reduced wastes and lower cost of production. The industry players will become aware of new

technologies to improve their operations, with some of them incorporating these technologies in their production system.

It is also intended that after the completion of the proposed project the members of the industry will institute better safety measures in their operation thus reducing the risk of accidents happening. Furthermore, the industry members, particularly the micro and small operators will be more familiar with other government programs that provide financial assistance at lower cost of capital. They will be better organized and will be able to form partnerships with bigger companies on a contractual basis to expand their markets and be more profitable.

Part 2. Project Rationale and Objectives

2.1 Rationale

2.1.1 Institutional set-up and organizational issues

The results of the pre-project showed that there is an urgent need for building the capacities of workers in the builders' woodworks industry, provision of technical assistance/services, infusion of new technologies as well as improvement of the management skills of managers and supervisors.

To improve the skills of the workers in the industry would require capability building through training by qualified trainers from government institutions and from the industry itself particularly from the medium and large firms who have their own manpower development programs. Complementation or integration within the industry can also be explored even on a pilot-scale basis. A big brother – small brother model can be initiated to test the values of sharing of resources and opportunities in the sustained growth and development of the builders' woodworks industry.

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

As in the pre-project, FPRDI shall be working closely with the regional/provincial offices of the Department of Science and Technology (DOST) and the Department of Trade and Industry (DTI) in the conduct of the project. FPRDI's linkages with these organizations are already well-established so the project does not foresee any problem in implementing the proposed activities. Trainors shall be coming primarily from FPRDI with available experts from other training providers and ancillary industries providing additional expertise when the need arises. Large industry manufacturers of builders' woodworks shall also be

tapped in the implementation of the big brother-small brother scheme being explored in the project.

2.1.2 Stakeholder analysis

Primary stakeholders for the project are the respondents in the pre-project [PPD 133/07 Rev. 1(I)] - micro and small enterprises engaged in the production/manufacture of builders' woodworks while secondary stakeholders are the regional/provincial offices of the DOST and DTI and ancillary industries providing inputs to the builders' woodworks industry. Stakeholder analysis is shown in Table 1.

Table 1. Stakeholder analysis – capacity building for the builders' woodworks industry in the Philippines

Stakeholder Group	Characteristics	Problems, Needs, Interests	Potentials	Involvement in Project
Primary Stakeholders				
Manufacturers of builders' woodworks	Primarily micro and small enterprises with few medium and very large corporations Very few manufacture solely builders' woodworks Because of financial constraints, most fabricate their own machineries or buy used/ second-hand machines Most workers lack formal training, acquiring skills on-the-job, progressing until they are allowed to handle machineries	Fabricated or used/ second-hand machines do not perform accurately, leading to low quality surfaces or uneven cuts necessitating further processing leading to higher costs of production Lack information on new technologies in wood processing	Huge potential for builders' woodworks in both export and domestic markets as evidenced by the increase in exports from US $ 107 M in 2005 to US $ 742 in 2007 and importation of around US $ 7 M of builders' woodworks in 2007 Willingness to attend trainings or send workers to training courses	Primary project beneficiary

Stakeholder Group	Characteristics	Problems, Needs, Interests	Potentials	Involvement in Project
Primary Stakeholders				
Manufacturers of builders' woodworks			Larger members of the industry are supportive of the concept of sub-contracting to micro and small manufacturers	
Secondary Stakeholders				
Regional/ provincial offices of the DOST and DTI	Mandated to provide assistance to industries Located in key areas/provinces	Experienced in providing assistance to industries	Can provide assistance in organizing training programs for primary stakeholders Can provide other forms of assistance that the project may not be able to provide such as sourcing funds/financing for business expansion	Can assist the project in implementing capacity building program
Other training providers and ancillary industries providing inputs to the builders' woodworks industry (eg. paint manufacturers, suppliers of equipment)	Usually with established manpower development programs, particularly in the application of latest trends in the industry	Knowledge in latest trends/ developments in wood processing Need to promote products that can be used by the industry	Can provide additional trainors in areas where FPRDI experts may be lacking	Additional trainors for capacity building program

2.1.3 Problem analysis

While exports of builders' woodworks have improved tremendously in the last two years, these have been limited to products by only a limited number of producers. The increasing export volume is hampered by the low level of quality of products and high cost of production as a result of the low level of skills of workers in the micro and small sector of the industry as borne out by the results of the pre-project.

The pre-project identified the low quality of products as a direct consequence of three causes: low skills in operation of wood working machines; low precision, home-made/fabricated machines and low quality raw materials.

Majority of the members of the builders' woodworks industry are micro and small enterprises. That being the case, their workers are not properly trained for specific tasks, the workers having obtained whatever skills they have through experience without formal instructions on the proper method of performing their tasks. They are deficient in skills in various areas of operations such as in raw material selection, milling/processing, assembly and in finishing.

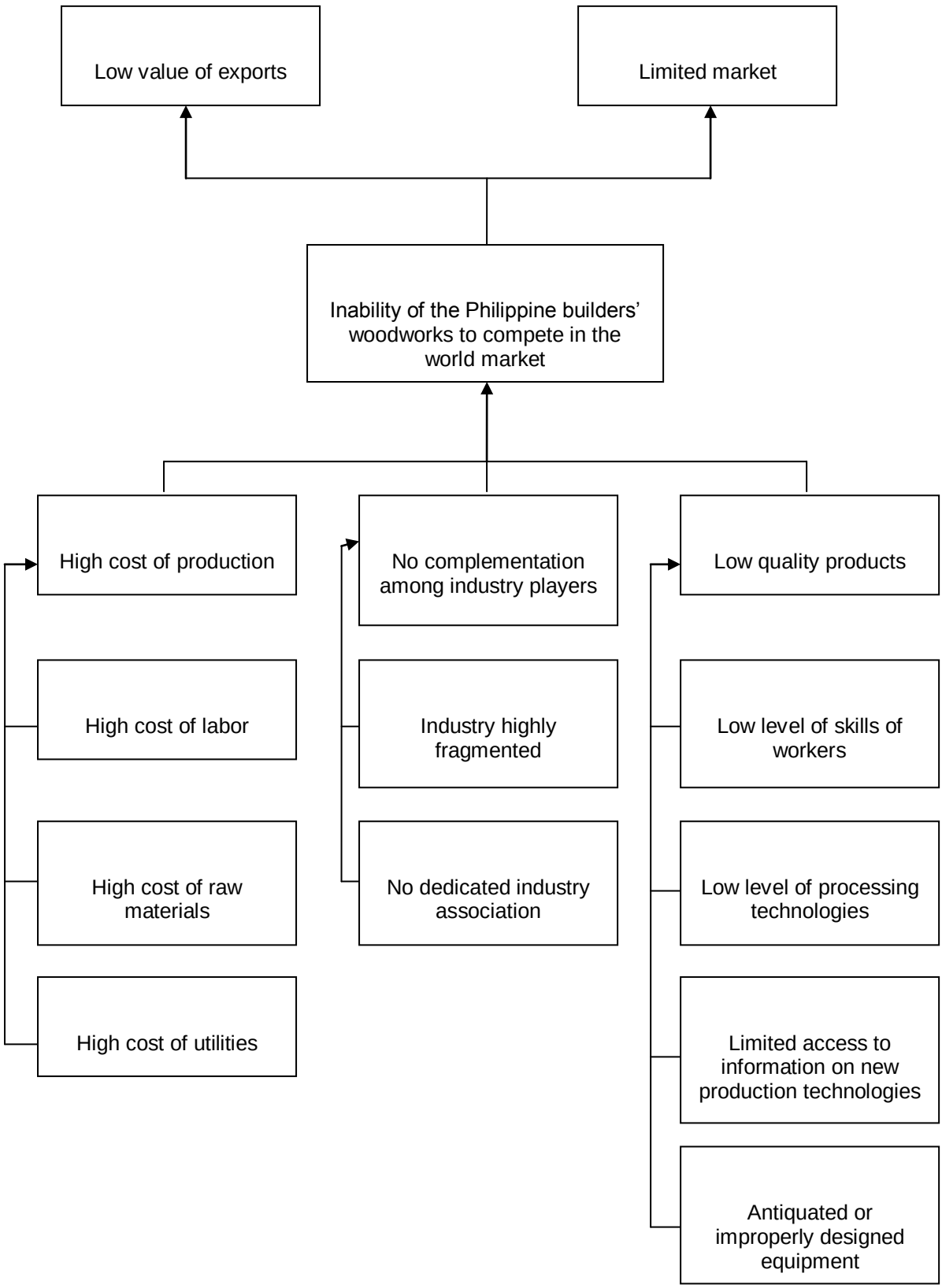
It was also observed during the conduct of the pre-project that the wood working machineries of most of the companies visited, particularly the wood-cutting machines, are fabricated by them and the performance of these machines are less precise which contributes to the low level of quality of products and high cost of production.

Low quality materials come either from the inherent quality of the wood itself such as presence of large knots or imprecise milling of the logs into lumber. Improperly dried lumber for use as part of a door or window produce products that will crack, split or exhibit open joints when the wood part with high moisture content begins to dry. Better selection of raw materials for the manufacture of builders' woodworks will help ensure higher quality products.

In addition, the micro and small enterprises lack sufficient capital to expand production and their production level individually is too small to meet the level of volume demanded by importers. Most of the members of the industry also do not belong to any industry association and therefore do not have access to new information/technology, new markets and cannot enjoy the benefits that associations can provide such as lower cost of inputs bought in bulk. Related to this, no degree of complementation or integration seems to exist among producers within the same or different levels of operations.

The problem tree is given in Figure 2.

Figure 2. Problem tree, capacity building for the builders' woodworks industry in the Philippines



2.1.4 Logical framework matrix

Strategy of Intervention	Measurable Indicators	Means of Verification	Key Assumptions
Development Objective To improve the quality of builders' woodworks and reduce the cost of production making the Philippine builders' woodworks industry competitive in the world market and resulting in improved income of workers and reduced poverty in the sector	Increase in the export of builders' woodworks 5 years after the completion of the project	Report of export of builders' woodworks in the Philippine Forestry Statistics Report on Impact Assessment/Ex-Post Evaluation	Markets for builders' woodworks continue to develop domestically and worldwide
Specific Objective 1 To improve the skills of workers in the builders' woodworks industry through the conduct of training courses based on training needs identified in the pre-project	Training modules/ materials developed in Year 1 of the project Training of workers implemented in Year 2 of the Project	Training modules Training materials Technical report Training report	Builders' woodworks managers and workers interested in collaborating
Output 1.1 Training materials/ modules developed have been developed based on the training needs assessment of the pre-project	Training materials and modules on 9 subject areas developed in Year 1	Training modules Training materials Technical report	National Consultants available in time
Activity 1.1.1 Collect, collate and update materials for use in the preparation of training modules	Collected materials	Collected and updated materials	Materials are available

Strategy of Intervention	Measurable Indicators	Means of Verification	Key Assumptions
Activity 1.1.2 Prepare training modules with assistance from trainers from medium and large industry partners	Training modules prepared	Training modules	Inputs from industry partners available
Activity 1.1.3 Pre-test training modules with workers from selected producers	Training modules pre-tested	Reports of pre-test	Industry partners are cooperative
Activity 1.1.4 Revise training modules based on comments of participants in the pre-test	Training modules revised	Revised modules	Adequate time for revision
Activity 1.1.5 Prepare training aids and materials	Training aids and materials prepared	Training aids	Modules pre-tested and revised
Output 1.2 Workers of selected builders' woodworks manufacturers in the country have been trained	Training implemented starting first semester of Year 2 up to third quarter of Year 3 200 workers/ managers of builders' woodworks firms trained by the end of the project	Training reports	Professional trainers available and industry partners willing to participate
Actvity 1.2.1 Identify participants to training	Participants identified	List of confirmed participants	Availability of participants and owners
Activity 1.2.2 Coordinate and prepare for conduct of training with provincial/ regional counterparts	Coordination and preparation at provincial/regional level	List of confirmed venues and other logistical requirements attended to	Cooperation of local/ counterpart organizers

Strategy of Intervention	Measurable Indicators	Means of Verification	Key Assumptions
Activity 1.2.3 Conduct of training courses	Training courses conducted	Attendance sheets Evaluation of trainings	Logistical requirements available
Activity 1.2.4 Prepare training report	Training report prepared	Training reports	Training conducted
Output 1.3 Immediate impacts of trainings on the skills of workers have been determined	Quality of products produced by trainees improved, cost of production reduced as assessed starting in the fourth quarter of Year 2 of implementation	Assessment of factory owners Reduction in percentage rejects/ reworks Report on impact evaluation	National Consultants available in time Survey conducted on time
Actvity 1.3.1 Prepare survey instrument for determination of immediate impacts of training	Survey instruments prepared	Survey instruments	National Consultants available in time
Activity 1.3.2 Pre-test the survey instrument and revise according to comments of participants	Survey instrument pre-tested and revised	Pre-tested and revised instrument	Inputs from industry partners available
Activity 1.3.3 Conduct survey of immediate impacts of training	Impact assessments conducted	Accomplished survey questionnaire	Cooperation of industry partners
Activity 1.3.4 Analyze data obtained during the survey	Data analyzed	Analyzed data	Pertinent data available
Activity 1.3.5 Prepare report on immediate impacts of the training	Assessment reports prepared	Reports on immediate impact of training	Immediate impacts determined

Strategy of Intervention	Measurable Indicators	Means of Verification	Key Assumptions
Specific Objective 2 Establish a working contractual model between medium/ large manufacturers and micro/small enterprises in the production of builders' woodworks	Working contractual model implemented in the first quarter of Year 3	Technical reports	Medium/large enterprises and mico/ small enterprises willing to enter into a contractual working relationship
Output 2.1 Model of working arrangements among enterprises has been developed	Model of working arrangement developed within the second semester of Year 2	Minutes of meeting between enterprises and project team Technical report	Enterprises willing to participate Arrangements agreed upon as planned
Activity 2.1.1 Develop the model for the working arrangement between medium/large enterprises and micro/ small enterprises	Model developed	Proposed model	Availability of national consultants/experts
Activity 2.1.2 Discuss model with medium/large and micro/small enterprises	Model discussed	Minutes of meeting with stakeholders	Stakeholders available
Activity 2.1.3 Revise model according to suggestions of cooperators	Model revised	Revised model	Availability of consultants and stakeholders
Output 2.2 Working arrangement has been implemented	Working arrangement implemented in 2nd quarter of Year 3	List of participating enterprises Technical arrangements Memorandum of Understanding/ Agreement	Enterprises willing to participate Arrangements agreed upon

Strategy of Intervention	Measurable Indicators	Means of Verification	Key Assumptions
Activity 2.2.1 Identify enterprises that will participate in the working arrangement	Enterprises identified	List of identified enterprises	Enterprises are willing and available
Activity 2.2.2 Actual implementation of the sub-contracting of builders' woodworks or parts thereof	Working model implemented	Signed agreement	Enterprises are willing to participate
Output 2.3 Immediate impacts of the working arrangement known	Survey of immediate impacts of arrangements conducted and analyzed in the 4th quarter of Year 3	Technical report	Survey conducted and analyzed as planned
Activity 2.3.1 Obtain and analyze data/information on factors affecting the sub-contracting arrangement	Data obtained and analyzed	Analyzed data and information	Data and information available
Activity 2.3.2 Prepare report on the sub-contracting arrangement	Report on subcontracting prepared	Report on subcontracting	Data and information available

2.2 Objectives

2.2.1 Development objective and impact indicators

Development Objective:

To improve the quality of builders' woodworks and reduce the cost of production making the Philippine builders' woodworks industry competitive in the world market and resulting in improved income of workers and reduced poverty in the sector.

Impact Indicator

Increase in the export of builders' woodworks five (5) years after the completion of the project.

2.2.2 Specific objectives and outcome indicators

Specific Objective 1

To improve the skills of workers in the builders' woodworks industry through the conduct of training courses based on training needs identified in the pre-project.

Outcome Indicators

- Training modules/materials developed in Year 1 of the project
- Training of workers implemented in Year 2 of the project

Specific Objective 2

To establish a working contractual model between medium/large manufacturers and micro/small enterprises in the production of builders' woodworks.

Outcome Indicator

- Working contractual model implemented in the first quarter of Year 3 of the project

Part 3. Description of Project Interventions

3.1 Outputs and activities

3.1.1 Outputs

Output 1.1 Training materials/modules have been developed based on the training needs assessment of the pre-project

Indicator

- Training materials and modules on 9 subject areas developed in Year 1

Output 1.2 Workers of selected builders' woodworks manufacturers in the country have been trained

Indicator

- Training implemented starting first semester of Year 2 up to third quarter of Year 3
- 200 workers/managers of builders' woodworks firms trained by the end of the project

Output 1.3 Immediate impacts of trainings on the skills of workers have been determined

Indicator

- Quality of products produced by trainees improved and cost of production reduced as assessed starting in the fourth quarter of Year 2 of project implementation

Output 2.1 Model of working arrangements among enterprises have been developed

Indicator

- Model of working arrangement developed within the second semester of Year 2

Output 2.2 Working arrangement have been implemented

Indicator

- Working arrangement implemented in the 2nd quarter of Year 3

Output 2.3 Immediate impacts of the working arrangement have been known

Indicator

- Survey of immediate impacts of arrangements conducted and analyzed in the 4th quarter of Year 3

3.1.2 Activities

Activity 1.1.1 Collect, collate and update materials for use in the preparation of training modules

Activity 1.1.2 Prepare training modules with assistance from trainers from medium and large industry partners

Activity 1.1.3 Pre-test training modules with workers from selected producers

Activity 1.1.4 Revise training modules based on comments of participants in the pre-test

Activity 1.1.5 Prepare training aids and materials

Activity 1.2.1 Identify participants to training

Activity 1.2.2 Coordinate and prepare for conduct of training with provincial/ regional counterparts

Activity 1.2.3 Conduct of training courses

Activity 1.2.4 Prepare training report

Activity 1.3.1 Prepare survey instrument for determination of immediate impacts of training

Activity 1.3.2 Pre-test the survey instrument and revise according to comments of participants

Activity 1.3.3 Conduct survey of immediate impacts of training

Activity 1.3.4 Analyze data obtained during the survey

Activity 1.3.5 Prepare report on immediate impacts of the training

Activity 2.1.1 Develop the model for the working arrangement between medium/ large enterprises and micro/small enterprises

Activity 2.1.2 Discuss model with medium/large and micro/small enterprises

Activity 2.1.3 Revise model according to suggestions of cooperators

Activity 2.2.1 Identify enterprises that will participate in the working arrangement

Activity 2.2.2 Actual implementation of the sub-contracting of builders' woodworks or parts thereof

Activity 2.3.1 Obtain and analyze data/information on factors affecting the sub-contracting arrangement

Activity 2.3.2 Prepare report on the sub-contracting arrangement

3.2 Implementation approaches and methods

It is the intended strategy of the project to devise easy to understand learning modules and implement a training program that would incorporate both lectures and hands-on practical experience. This shall be done by working closely with experts from both the FPRDI, other training providers, medium and large builders' woodworks manufacturers and ancillary manufacturers that provide inputs to the industry such as manufacturers of finishes, wood working equipment and the like.

Medium and large companies producing builders' woodworks also have their own training programs for their employees. The project shall also partner with these companies in providing the training program. These companies have been sounded off during the pre-project and they have signified their commitment to assist in training workers of the micro and small enterprises during the implementation of the proposed capacity building project.

To be able to expand their operations, micro and small industry players will be encouraged to form partnership with bigger and exporting members in a sub-contracting basis. This will be carried out through a series of consultative meetings attended by all stakeholders until a working arrangement is finalized. This arrangement shall be formalized through a Memorandum of Understanding/Memorandum of Agreement that shall detail all responsibilities and roles of concerned parties.

An ex-post evaluation of the training shall be done at least six (6) months after it has been conducted to determine if the training programs have been effective, Likewise, the working arrangement shall also be reviewed towards the end of the project to determine if the scheme can be replicated in other areas.

3.3 Work plan

Outputs/Activities	Responsible Party	Year 1 Quarter				Year 2 Quarter				Year 3 Quarter				Year 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Output 1.1																	
1.1.1 Collect, collate and update materials for use in the preparation of training modules	Project staff																
1.1.2 Prepare training modules with assistance from trainers from medium and large industry partners	Project staff National experts/ consultants																
1.1.3 Pre-test training modules with workers from selected producers	Project staff																
1.1.4 Revise training modules based on comments of participants in the pre-test	Project staff National experts/ consultants																
1.1.5 Prepare training aids and materials	Project staff																
Output 1.2																	
1.2.1 Identify participants to training	Project Leader																
1.2.2 Coordination and preparation for conduct of training with provincial/regional counterparts	Project Leader																

Outputs/Activities	Responsible Party	Year 1 Quarter				Year 2 Quarter				Year 3 Quarter				Year 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Output 1.2																	
1.2.3 Conduct of training courses	Project staff National experts/trainors																
1.2.4 Prepare training report	Project Leader																
Output 1.3																	
1.3.1 Prepare survey instrument for determination of immediate impacts of training	Project Leader National Consultants/ Experts																
1.3.2 Pre-test the survey instrument and revise according to comments of participants	Project staff																
1.3.3 Conduct survey of immediate impacts of training	Project staff																
1.3.4 Analyze data obtained during the survey	Project staff																
1.3.5 Prepare report on immediate impacts of the training	Project Leader																

Outputs/Activities	Responsible Party	Year 1 Quarter				Year 2 Quarter				Year 3 Quarter				Year 4 Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Output 2.1																	
2.1.1 Develop the model for the working arrangement between medium/large enterprises and micro/ small enterprises	Project Leader National Consultants/ Experts																
2.1.2 Discuss model with medium/large and micro/small enterprises	Project Leader National Consultants																
2.1.3 Revise model according to suggestions of cooperators	Project Leader National Consultants																
Output 2.2																	
2.2.1 Identify enterprises that will participate in the working arrangement	Project Leader National Consultants																
2.2.2 Actual implementation of the sub-contracting of builders' woodworks or parts thereof	Concerned stakeholders																
2.3.1 Obtain and analyze data/ information on factors affecting the sub-contracting agreement	Project staff																
2.3.2 Prepare report on the sub-contracting agreement	Project Leader																

3.4 Budget

3.4.1 Master budget schedule

Outputs/ Activities	Description	Budget Component	Quantity				Units	Unit Cost US$	Total Cost US$	ITTO				Executing Agency
			Year 1	Year 2	Year 3	Year 4				Year 1	Year 2	Year 3	Year 4	
Output 1.1	***Training materials/modules have been developed based on the training needs assessment of the pre-project***													
A1.1.1	**Collect, collate and update materials for use in the preparation of training modules**													
	Project Leader	11	3				Month	500	1,500	1,500				420
	Project Assistant	12	3				Month	436	1,308	1,308				
	Desktop computer with accessories and licensed softwares	44.1	1				Unit	3,000	3,000	3,000				
	Office supplies	54	1				Year	1,000	1,000	1,000				
A1.1.2	**Prepare training modules with assistance from trainers from medium and large industry partners**													
	Project Leader	11	6				Month	500	3,000	3,000				840
	Project Assistant	12	6				Month	436	2,616	2,616				
	2 National Consultants	13	3				Month/ person	1,000	6,000	6,000				8,400
	10 National Experts	11	3				Month/ person	400	12,000	12,000				
	Daily Subsistence Allowance													
	Project Leader	31.1	10				Days	139	1,390	1,390				
	Other Personnel (2 persons)	31.3	10				Days/ person	40	800	800				
	Local transport costs	33	1				Lot	500	500	500				
	Sundries	61	1				Year	600	600	600				

Outputs/ Activities	Description	Budget Component	Quantity				Units	Unit Cost US$	Total Cost US$	ITTO				Executing Agency
			Year 1	Year 2	Year 3	Year 4				Year 1	Year 2	Year 3	Year 4	
A.1.1.3	**Pre-test training modules with workers from selected producers**													
	National Experts 5 days/ training x $ 182/day	11	10				Person	910	9,100	9,100				
	Daily Subsistence Allowance													
	Project Leader $ 139/day x 7 days per training x 4 training courses	31.1	28				Day	139	3,892	3,892				
	National Experts $ 139/day x 7 days x 10 experts	31.1	50				Man-days	139	9,730	9,730				
	Other Personnel $ 40/day x 7 days per training x 4 training courses x 2 persons	31.3	56				Man-days	40	2,240	2,240				
	Local transport costs	33	8				Training	150	1,200	1,200				
A.1.1.4	**Revise training modules based on comments of participants in the pre-test**													
	National Experts 10 experts x $400/month	11	10				Person	400	4,000	4,000				
	National Consultant	13	2				Person	1,000	2,000	2,000				
A.1.1.5	**Prepare training aids and materials**													
	Project Leader	11	3				Month	500	1,500	1,500				420
	Project Assistant	12	3				Month	436	1,308	1,308				
	National Experts	11	10				Person	400	4,000	4,000				
	Sub-contract Printing of 10 training manuals at $4/manual x 500 copies/manual	20	5,000				Manual	4	20,000	20,000				
	Contingencies	63	1				Unit	200	200	200				

Outputs/ Activities	Description	Budget Component	Quantity				Units	Unit Cost US$	Total Cost US$	ITTO				Executing Agency
			Year 1	Year 2	Year 3	Year 4				Year 1	Year 2	Year 3	Year 4	
Output 1.2	***Workers of selected builders' woodworks manufacturers in the country have been trained***													
A.1.2.1	**Identify participants to training**													
A.1.2.2	**Coordinate and prepare for conduct of training with provincial/ regional counterparts**													
	Project Leader	11		12	6		Month	500	9,000		6,000	3,000		2,520
	Project Assistant	12		12	6		Month	436	7,848		5,232	2,616		
	Office supplies	54		1	1		Year	1,000	2,000		1,000	1,000		
A.1.2.3	**Conduct of training courses**													
	Project Leader	11			3		Month	500	1,500			1,500		420
	Project Assistant	12			3		Month	436	1,308			1,308		
	National Experts 10 experts x $ 400/month	11		12	6		Expert - month	400	72,000		48,000	24,000		17,220
	Daily Subsistence Allowance													
	Project Leader $ 139/day x 5 days/training x 8 trainings/province	31.1		12	6		Province	5,560	100,080		66,720	33,360		
	National Experts $ 139/day x 5 days/training x 10 experts	31.1		12	6		Province	6,950	125,100		83,400	41,700		
	Other labor $ 40/day x 5 days/training x 8 trainings/province x 2 persons	31.3		12	6		Province	3,200	57,600		38,400	19,200		
	Local transport costs	33		12	6		Month	1,500	27,000		18,000	9,000		
	Multi-media projector with laptop and accessories, including screen	44		1			Lot	6,000	6,000		6,000			
	Sundries $ 5/person/day x 20 persons/ training x 8 trainings/province	61		12	6		Province	800	14,400		9,600	4,800		
	Contingencies	63		1			Year	500			500			

Outputs/ Activities	Description	Budget Component	Quantity				Units	Unit Cost US$	Total Cost US$	ITTO				Executing Agency
			Year 1	Year 2	Year 3	Year 4				Year 1	Year 2	Year 3	Year 4	
Output 1.3	**Immediate impacts of trainings on the skills of workers have been determined**													
Activity 1.3.1	**Prepare survey instrument for determination of immediate impacts of training**													
	1 National Expert on Impact Assessment	11	3				Month	400	1,200	1,200				
Activity 1.3.2	**Pre-test the survey instrument and revise according to comments of participants**													
	Daily subsistence allowance													
	Project Leader $ 139/day x 4 days/training	31.1		8			Training	556	4,448		4,448			
	Other Personnel $40/day x 4 days/training x 2 persons	31.3		8			Training	320	2,560		2,560			
	Local transport costs	33		8			Training	150	1,200		1,200			
Activity 1.3.3	**Conduct survey of immediate impacts of training**													
	Project Leader	11			3	3	Month	500	3,000			1,500	1,500	420
	Project Assistant	12			3	3	Month	436	2,616			1,308	1,308	
	National Expert	11			3	3	Month	400	2,400			1,200	1,200	
	Daily subsistence allowance													
	Project Leader $139/day x 5 days/province	31.1		3	12	3	Province	695	12,510		2,085	8,340	2,085	
	National Expert $139/day x 5 days/province	31.1		3	12	3	Province	695	12,510		2,085	8,340	2,085	
	Other Personnel $40/day x 5 days/province x 2 personnel	31.3		3	12	3	Province	400	7,200		1,200	4,800	1,200	
	Local transport costs	33		3	12	3	Province	1,000	18,000		3,000	12,000	3,000	
	Sundries	61				1	Year	1,000	1,000				1,000	

Outputs/ Activities	Description	Budget Component	Quantity				Units	Unit Cost US$	Total Cost US$	ITTO				Executing Agency
			Year 1	Year 2	Year 3	Year 4				Year 1	Year 2	Year 3	Year 4	
Activity 1.3.4	**Analyze data obtained during the survey**													
	Office supplies	54				1	Year	1,000					1,000	
Activity 1.3.5	**Prepare report on immediate impacts of the training**													
Output 2.1	**Model of working arrangements among enterprises have been developed**													
Activity 2.1.1	**Develop the model for the working arrangement between medium/large enterprises and micro/small enterprises**													
	2 National Consultants	13				3	Month	2,000				6,000		
Activity 2.1.2	**Discuss model with medium/large and micro/small enterprises**													
	Daily subsistence allowance													
	Project Leader $139/day x 3 target areas	31.1			3		Days	417	1,251			1,251		
	National Consultants $139/day x 3 target areas x 2 persons	31.1			3		Days	834	2,502			2,502		
	Other personnel	31.3			6		Days	40	240			240		
	Local transport costs	33.1			6		Trips - person	300	1,800			1,800		
Activity 2.1.3	**Revise model according to suggestions of cooperators**													

Outputs/ Activities	Description	Budget Component	Quantity				Units	Unit Cost US$	Total Cost US$	ITTO				Executing Agency
			Year 1	Year 2	Year 3	Year 4				Year 1	Year 2	Year 3	Year 4	
Output 2.2	**Working arrangement have been implemented**													
Activity 2.2.1	**Identify enterprises that will participate in the working arrangement**													
Activity 2.2.2	**Actual implementation of the sub-contracting of builders' woodworks or parts thereof**													
	Daily subsistence allowance													
	National Consultants/Project Leader $139/day x 4 days x 3 persons x 3 target area	31.1			1	1	Trip/ target area	5,004	10,008			5,004	5,004	
	Other personnel	31.3			6	6	Days	40	480			240	240	
	Local transport costs	33.1			6	6	Trips - person	300	3,600			1,800	1,800	
Activity 2.2.3	**Prepare report on the subcontracting agreement**													
	Project Leader	11				3	Month	500					1,500	420
	Project Assistant	12				3	Month	436					1,308	
Non-activity based costs														
	Offices at EA	41	1	1	1	0.5	Year	1,000	3,500					3,500
	Utilities	53	1	1	1	0.5	Year	1,500	5,250					5,250
	Audit costs	62	1	1	1	1	Year	800	3,200					3,200
	Project Accountant	12.2	1	1	1	1	Year	3,600	14,400	3,600	3,600	3,600	3,600	
	Project Bookkeeper	12.2	1	1	1	1	Year	1,800	7,200	1,800	1,800	1,800	1,800	

3.4.2 Consolidated budget by component

Category	Description	TOTAL	Year 1	Year 2	Year 3	Year 4
10	***Personnel***					
11.1	Project Leader	26,880	7,680	7,680	7,680	3,840
11	10 National Experts (conduct of training courses)	126,720	37,500	56,400	32,400	420
11	National Expert (Impact assessment)	3,600	1,200	-	1,200	1,200
12.1	Project Assistant	18,312	5,232	5,232	5,232	2,616
12.2	Project Accountant	14,400	3,600	3,600	3,600	3,600
12.2	Project Bookkeeper	7,200	1,800	1,800	1,800	1,800
13	2 National Consultants	14,000	8,000	-	6,000	-
19	**Sub-total**	**211,112**	**65,012**	**74,712**	**57,912**	**13,476**
20	***Sub-contracts***					
21	Sub-contract	20,000	20,000	-	-	-
29	**Sub-total**	**20,000**				
30	***Travel***					
31	Daily subsistence allowance					
31.1	National expert(s)/ consultants	279,251	15,012	154,568	100,497	9,174
31.3	Other personnel	69,920	3,040	40,960	24,480	1,440
33	Local transport costs	50,300	1,700	19,200	24,600	4,800
39	**Sub-total**	**399,471**	**19,752**	**214,728**	**149,577**	**15,414**
40	***Capital Items***					
41	Premises	7,000	2,000	2,000	2,000	1,000
44	Capital equipment					
44.1	Computer equipment	3,000	3,000			
44.3	Others	6,000		6,000		
49	**Sub-total**	**16,000**	**5,000**	**8,000**	**2,000**	**1,000**
50	***Consumable items***					
53	Utilities	7,000	2,000	2,000	2,000	1,000
54	Office supplies	4,000	1,000	1,000	1,000	1,000
59	**Sub-total**	**11,000**	**3,000**	**3,000**	**3,000**	**2,000**
60	***Miscellaneous***					
61	Sundry	16,000	600	9,600	4,800	1,000
62	Audit costs	3,200	800	800	800	800
63	Contingencies	700	200	500		
69	**Sub-total**	**19,900**	**1,600**	**10,900**	**5,600**	**1,800**
70	***National management cost***	**3,896**	**1190**	**1190**	**1190**	**326**
80	***Project monitoring and administration***					
81	ITTO monitoring & review	8,000	2,000	2,000	2,000	2,000
82	ITTO mid-term evaluation					
	ITTO ex-post evaluation					
83	ITTO program support costs (8% on items 10 – 82 above)	50,943	8,119	23,877	16,417	2,530
84	Donor monitoring costs					
89	**Sub-total**	**58,943**	**10,119**	**25,877**	**18,417**	**4,530**
90	***Refund of pre-project costs***	79,199	79,199			
	Sub-total	**79,199**	**79,199**			
100	***GRAND TOTAL***	**819,521**	**204,872**	**338,407**	**237,696**	**38,546**

3.4.3 ITTO budget by component

Category	Description	TOTAL	Year 1	Year 2	Year 3	Year 4
10	***Personnel***					
11.1	Project Leader	21,000	6,000	6,000	6,000	3,000
11	10 National Experts (conduct of training courses)	101,100	29,100	48,000	24,000	-
11	National Expert (Impact assessment)	3,600	1,200	-	1,200	1,200
12.1	Project Assistant	18,312	5,232	5,232	5,232	2,616
12.2	Project Accountant	14,400	3,600	3,600	3,600	3,600
12.2	Project Bookkeeper	7,200	1,800	1,800	1,800	1,800
13	2 National Consultants	14,000	8,000	-	6,000	-
19	**Sub-total**	**179,612**	**54,932**	**64,632**	**47,832**	**12,216**
20	***Sub-contracts***					
21	Sub-contract	20,000	20,000	-	-	-
29	**Sub-total**	**20,000**	**20,000**	**-**	**-**	**-**
30	***Travel***					
31	Daily subsistence allowance					
31.1	National expert(s)/ consultants	279,251	15,012	154,568	100,497	9,174
31.3	Other personnel	69,920	3,040	40,960	24,480	1,440
33	Local transport costs	50,300	1,700	19,200	24,600	4,800
39	**Sub-total**	**399,471**	**19,752**	**214,728**	**149,577**	**15,414**
40	***Capital Items***					
41	Premises	-	-	-	-	-
44	Capital equipment					
44.1	Computer equipment	3,000	3,000	-	-	-
44.3	Others	6,000	-	6,000	-	-
49	**Sub-total**	**9,000**	**3,000**	**6,000**	**-**	**-**
50	***Consumable items***					
53	Utilities	-	-	-	-	-
54	Office supplies	4,000	1,000	1,000	1,000	1,000
59	**Sub-total**	**4,000**	**1,000**	**1,000**	**1,000**	**1,000**
60	***Miscellaneous***					
61	Sundry	16,000	600	9,600	4,800	1,000
62	Audit costs					
63	Contingencies	700	200	500		
69	**Sub-total**	**16,700**	**800**	**10,100**	**4,800**	**1,000**
70	***National management cost***					
80	***Project monitoring and administration***					
81	ITTO monitoring & review	8,000	2,000	2,000	2,000	2,000
82	ITTO mid-term evaluation					
	ITTO ex-post evaluation					
83	ITTO program support costs (8% on items 10 – 82 above)	50,943	8,119	23,877	16,417	2,530
84	Donor monitoring costs					
89	**Sub-total**	**58,943**	**10,119**	**25,877**	**18,417**	**4,530**
90	***Refund of pre-project costs***	79,199	79,199	-	-	-
	Sub-total	**79,199**	**79,199**	**-**	**-**	**-**
100	***GRAND TOTAL***	**766,925**	**188,802**	**322,337**	**221,626**	**34,160**

3.4.4 Executing agency budget by component

Category	Description	TOTAL	Year 1	Year 2	Year 3	Year 4
10	***Personnel***					
11	Project Leader	5,880	1,680	1,680	1,680	840
11	National Experts	25,620	8,400	8,400	8,400	420
19	**Sub-total**	31,500	10,080	10,080	10,080	1,260
40	***Capital Items***					
41	Premises	7,000	2,000	2,000	2,000	1,000
49	**Sub-total**	**7,000**	**2,000**	**2,000**	**2,000**	**1,000**
50	***Consumable items***					
53	Utilities	7,000	2,000	2,000	2,000	1,000
59	**Sub-total**	**7,000**	**2,000**	**2,000**	**2,000**	**1,000**
60	***Miscellaneous***					
62	Audit costs	3,200	800	800	800	800
69	**Sub-total**	**3,200**	**800**	**800**	**800**	**800**
70	***National management cost (8%)***	**3,896**	**1190**	**1190**	**1190**	**326**
100	***GRAND TOTAL***	**52,596**	**16,070**	**16,070**	**16,070**	**4,386**

3.5 Assumptions, risks, sustainability

3.5.1 Assumptions and risks

Capability building of the workers of the builders' woodworks industry entails some risks. Among these are:

1. Willingness of employers to allow their workers to participate in the training

   Training of the workers demand that they are willingly allowed by their employers to attend the training sessions and still be paid by them. The time spent by the workers in training entails immediate monetary loss for the owners of the establishments. It is therefore necessary to convince the owners that the loss is temporary and that the training will redound to more profits later because of less wastage of raw materials, higher quality of products and lower cost of production.

   Most operations in the industry are through contract. A worker contracts from the owner of the factory the labor cost of producing an item such as a door. His take home pay therefore depends on how fast he can finish an item given certain considerations such as the quality of the product. The training would take the worker away from his work and will mean loss of income. It is therefore also necessary to convince the worker that the skills he will gain in the training will improve his capacity to produce quality products in a shorter period of time. His gained skills will also allow him to negotiate with the factory owner for higher price for his labor.

2. Quality and effectiveness of training

   The skills that will be acquired by the trainees during the capacity building exercises will depend to a large extent on whether the training modules developed for the purpose will impart the needed training or not. In addition, the workers who will participate in the training will have already different levels of skills. It is necessary to design the modules to closely meet the workers' training requirement. It may be necessary to work with trainers from the larger producers in preparing the training modules and have these modules pre-tested to a selected small group of workers.

   The other dimension of the training is the effectiveness of the delivery of the training. Researchers and training specialist at the FPRDI who have been conducting trainings for the wood processing industry shall be tapped. They are specialist in this kind of work and therefore have gained proficiency in delivering training. Training specialists from other training providers and agencies may also be tapped for the conduct of capacity building programs for the industry.

This existing competence can also be complemented by experts available and provided by the ancillary industries such as manufacturers of machineries, glue/adhesives, chemical preservatives and finishes.

3. Willingness of the large builders' woodworks industry manufacturers to participate in the training of workers of the micro and small enterprises

   While the large industry manufacturers of builders' woodworks have indicated their willingness to be part of the capacity building program for workers in the micro and small-scale in meetings during the pre-project, it is important to secure their assistance during the implementation of the main project. It is necessary to emphasize that a robust micro and small-scale sub-sector of the industry is necessary to the larger sub-sector as potential source of laborers, if the need arises. They could also be an important partner in sub-contracting the production of certain items whenever it may become necessary to do so.

4. Willingness of the large builders' woodworks industry manufacturers to participate in sub-contracting the production of certain items or parts of builders' woodworks.

5. Readiness of the beneficiaries especially the smaller producers to practice or apply the knowledge and skills acquired during the training courses.

   Experience in industry manpower development programs clearly show, in many cases, the non-adoption of technical and related information imparted in trainings, seminars or workshops. Major arguments include infusion of more capital, sustainability of raw material supply and low-end market characteristics. It will be most logical to complement trainings with special sessions that will address the above concerns.

   Likewise, during the implementation of the pre-project a preliminary dialogue with the larger members of the industry had been conducted to sound them off on their willingness to support the development of the micro and small-scale segment of the builders' woodworks industry. All had been supportive to the concept of sub-contracting the production of certain items or part of items if there are identified shops capable of producing high quality products. Again, it may be necessary to persuade them that it will be also to their advantage to sub-contract production of certain items or parts because of the lower labor cost of these micro and small-scale manufacturers, assuming that these are capable of producing high quality products.

3.5.2 Sustainability

One of FPRDI's major concerns is the provision of industry manpower development activities in such areas as end-use property requirements, chemical treatment, product assembly and construction and finishing

techniques. No less than 30 trainings, seminars and technology demonstrations are conducted annually by FPRDI in different regions of the country. To ensure the sustainability of the activities initiated by the project, FPRDI shall continue with the conduct of the capacity building program developed for the builders' woodworks industry. Training modules developed shall be used in assisting other micro and small firms which were not beneficiaries of the ITTO-funded capacity building program. The standards developed under the pre-project will also be used to determine the training needs of workers in other sectors in the forest-based/wood-using industries.

It is also expected that with the conduct of the capacity building program, the capabilities of future trainors shall be developed. Once workers have been trained, it is expected that the knowledge they gained will be passed on to other workers within their own firms or within their locality.

The model on working arrangements between medium/large and micro/small enterprises that shall be developed by the project can also be replicated in other sectors that FPRDI assists in its provision of technical services.

Part 4. Implementation Arrangements

4.1 Organization structure and stakeholder involvement mechanisms

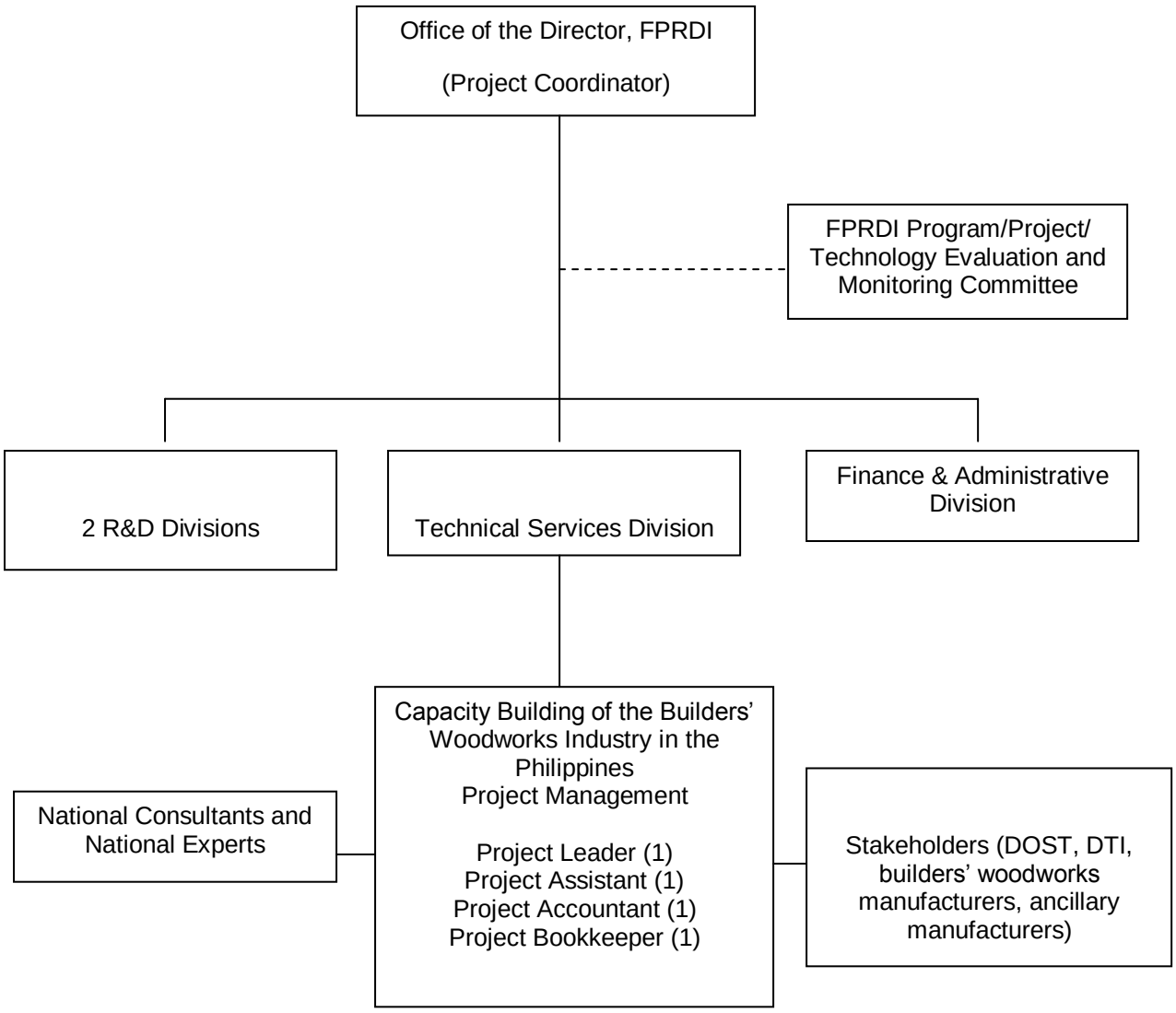


Fig. 3 The project's organization chart

4.1.1 Executing agency and partners

The project will be managed by the Forest Products Research and Development Institute in accordance with ITTO requirements. It will be implemented by the Project Leader with the Director of FPRDI, as the Project Coordinator, providing technical and administrative guidance in the project's activities.

The project shall be working closely with the Regional and Provincial offices of the Department of Science and Technology and the Department of Trade and Industry. Also, the project shall be tapping the technical expertise of ancillary manufacturers that provide inputs to the industry such as manufacturers of finishes, wood working equipment and the like. These

experts may be tapped to serve as trainors in various aspects of builders' woodworks manufacture.

4.1.2 Project management team

The project management team will be composed of a Project Leader, a Project Assistant, Accountant and Bookkeeper. The Project Leader shall be responsible for the day-to-day management and implementation of the project, with the Project Assistant providing assistance.

4.1.3 Project steering committee

A Project Steering Committee shall be formed for the project following provisions set forth in ITTO's rules and procedures for project implementation.

4.1.4 Stakeholder involvement mechanisms

The project shall, from time to time, conduct meetings with stakeholders to review the program of training courses to be implemented and to determine what other technical assistances that can be provided to the builders' woodworks industry.

4.2 Reporting, review, monitoring and evaluation

As in all of the Institute's projects, the project shall be monitored and evaluated regularly by the concerned Division where it is administratively situated. Periodic evaluations are also regularly conducted by the Program/Project/Technology Evaluation and Monitoring Committee of FPRDI, a standing committee created by the Institute tasked to conduct periodic assessment of all on-going projects of FPRDI. These evaluations are usually done in July and November annually. Yearly Plan of Operations (YPOs), bi-annual reports and other project documentation shall be submitted to ITTO as needed.

4.3 Dissemination and mainstreaming of project learning

4.3.1 Dissemination of project results

Training manuals produced by the project shall be used during the conduct of training courses in the identified target areas. They may also be used in future training courses conducted after completion of the project.

Training reports prepared shall be made available to interested stakeholders.

4.3.2 Mainstreaming project learning

Experiences obtained in the implementation of the project shall be the basis for improvements in the conduct of training courses for other sectors in the forest-based industry and in the improvement of training manuals and other training materials.

ANNEX G. Photo-documentation of pre-project activities

Fig. 2 Project staff conducting interview in Villaverde, Nueva Vizcaya

Fig. 3a and 3b Modes of drying of raw materials used by micro and small firms – air drying and with the use of improvised dryer

Fig. 4 Equipment in most micro and small firms are usually locally fabricated and have no safety features

Fig. 5 Although safety measures like the use of improvised masks and goggles are in place, housekeeping is still one area where improvements can be made

Fig. 6 Some builders' woodworks produced by the respondents

Fig. 7 Consultative meetings with staff of MATIMCO (above) and Budget Builders (below), both medium-scale firms in Cebu City, manufacturers of builders' woodworks re possible complementation scheme with micro and small firms

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