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CONSULTANCY REPORT

A SURVEY OF THE FURNITURE INDUSTRY
IN PAKISTAN

By

MSJ Research Institute

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Trade names of wood used in the report and
their equivalent botanical names

Kikar/Babul	Acacia nilotica
Bahan	Populus euphratica
Cheer	Pinus roxburghii
Kail	Pinus excelsa/wallichiana
Partal/Fir	Abies pindrow
Dayar/Deodar	Cedrus deodara
Walnut	Juglans regia
Poplar/Safaida	Populus spp/cuamericana/nigra
Chilghoza	Pinus gerardiana
Shisham	Dalbergia sissoo
Mulberry/Toot	Morus alba
Sofaida	Eucalypts spp.
Oak	Quercus spp.
Farash	Tamarix articulata/aphylla
Teak	Tectona grandis

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Unorganised Wood-using Industries

Furniture Industry

I N T R O D U C T I O N

This report deals with the state of Furniture Industry in Pakistan. It has been prepared by MSJ Research Institute, Karachi who were commissioned to conduct this survey, by Forestry Planning & Development Project, Government of Pakistan - USAID, Winrock International.

The sponsors had organised and held a Wood-Producers-Users Seminar in Lahore in May 1990. The participants included private wood growers, merchants, furniture manufacturers, professionals from public service, administrators etc. This was a forum where all categories of people met on one platform and freely expressed their views, feelings, ideas and aspirations. Very many questions were raised, some satisfactorily answered, others left unanswered or not well answered. A great many problems came to the notice of the participants. These necessitated a closer look, a deeper study, and above all, a capacity and will to resolve them.

Such is the background that the sponsors were provided which stimulated them to take further steps. Consequently, this may appear a small, but surely a significant step taken by the sponsors to organise a research-survey to obtain an overview of the furniture industry in the country. The Seminar had highlighted the fact that there does exist, a wide gap between the wood-producer and the

wood-user; or at any rate, there is a lack of communication and coordination.

The decision of Winrock International/USAID to have this survey conducted is not only a natural response to the participants of the Seminar but is also a first-ever attempt made in this country to gather relevant information about the furniture industry which plays an important economic role and engages considerably highly skilled labour force. It therefore deserves to be recognised as an important component of the industrial backbone of the country. As such, the industry merits to receive earnest attention of the Administration -- a plea ever so often made during the course of Lahore Seminar in May 1990.

Even though the scope of work did not permit extensive coverage to embrace sizeable sections of the furniture industry, yet the results should help find a correct orientation and also help to fix future direction for an elaborate survey. This should be the logical outcome of the findings set forth in the following pages. The importance of such an approach cannot be over emphasised because it is as much a need of the industrialists as it is of the policy and decision makers in the Administration. Here, then, is the first small instalment of the raw material for policy makers and the Establishment.

S U M M A R Y

This report is a part of the nationwide unorganised wood-using industries surveys sponsored by Willrock International/USAID and carried out by MSJ Research Institute Karachi and is concerned with Furniture Industry.

The survey was based on the questionnaire provided by the sponsors. The report that follows depicts a profile of the industry according to the answers obtained during the course of the investigative survey.

The sample comprises of 63 firms operating in 12 cities of Pakistan. The salient features that merit consideration are as follows.

1. There were 14 furniture manufacturing units that started work between 1950 - 1970 and another 48 got established between 1980 - 1990. This shows a threefold increase in a period of 10 years.
2. Fabricating/Finishing is the main field of all furniture manufacturing units. The great majority (82%) are retail dealers and so the industry is mainly retail-oriented.
3. The industry is reasonably equipped with mechanical "electrically operated machinery such as Vertical/Horizontal Band saws etc. but uses a variety of

manual tools as well. Owing to heavy import duty, they do not have the resources enough to import more sophisticated machines.

4. The primary products of the industry are chairs, tables, almirahs, beds and an ^{array} / of other types of furniture, the details are placed in Annex. The annual production of all types put together exceeds 77000 pieces.
5. The majority of firms operate at 60% of their capacity, a small number operate at 30% and some even at 90% capacity depending on consumer demand and limited by obtainability/^{of}adequate wood supplies.
6. Four main species favoured by furniture industry are Dayar, Shisham, Mulbery and Kikar but secondary species such as pines, eucalypts are also being used increasingly. Annual consumption is about 382000 cft. in these 59 firms. ^{Four} / firms are involved in finishing the products only.
7. Most of the factories have the wood delivered at the factory for which animal as well as mechanical transport is used according to circumstances.
8. The prices at which wood is purchased differ greatly from place to place ranging from Rs. 35/- to Rs. 350/- per cft. for different wood species.

9. The prices of wood are rising and recent price rise ranges from 10% to 25%.
10. Middle man agency is the chief source of wood supplies and 95% wood comes from private tree growers.
11. Good seasoned quality wood is getting scarce.
12. Material other than wood used in the industry are Chipboard, Hardboard, Veneer and Plywood.
13. Wood waste accounts 15% to 25%. It is sold away between Rs.15/- to Rs.38/- per 40 kg for using as fuel.
14. The distribution of cost of production as a percentage of cost is 40% on wood, 30% labour 10% operative.
15. The gross annual value of sales totals over Rs.61,000,000/- for sampled firms.
16. Highly skilled labour is employed and on the average 10 persons are employed by each manufacturing unit. It is not a labour-intensive industry.

Research Methodology
For
Primary Information Gathering

It will be helpful in understanding this report if mention is first made about the methodology followed in this survey.

A major portion of the project involved collection of information which had been never before gathered in a systematic manner and does not exist in any published or documented form. A survey methodology was, therefore, adopted in this study. This design was suggested in the terms of reference and rightly so, because, the study pertains to an industry which is "unorganised". The units of the industry are of varying sizes and spread across the entire country. This survey approach, therefore, enabled the workers to pick up the salient trends of the industry more effectively. Since forestry profession had not ever undertaken any exclusive study of this industry, this survey may be considered as the best starting point.

The nature of this study, in its essence, is a descriptive one. The main objective kept in view was to tap and collect maximum information about the practices and problems of furniture manufacturing units engaged in production of this commodity. Such survey was therefore uniquely suited for this type of requirement.

The questionnaire for the study was provided by the sponsors of the project who are highly qualified, experienced professional foresters. The main thrust was to obtain :

- A. Profile of the firms interviewed
- B. Scale of operations
- C. Specific information about wood usage

In order to make sure that the interviewee has the information about all the facets of operations, the questionnaire was administered to key persons in the sampled firm.

A three-stage sampling methodology was utilised for this study, the mechanics of approach being as under :-

A. Phase-1 : Selection of cities :

The basis of selection was the level of activity of the industry. The list of the sample sites selected is reproduced here :-

<u>Province</u>	<u>Sample Sites</u>
Sindh	Karachi Hyderabad Sukkur
Punjab	Lahore Rawalpindi Gujrat Sargodha Chiniot
N.W.F.P.	Peshawar Dera Ismail Khan Mardan
Balochistan	Quetta Sibi

B. Phase-2 : Identification of clusters of activity :

In the second stage of sampling, clusters of activity were identified in those sites which had been selected in phase-1. These clusters were formed on the basis of geographical proximity. Efforts were directed to constitute clusters so as to achieve inter-cluster homogeneity and intra-cluster heterogeneity. Such a course allowed enough variation within each cluster so that a cluster represented a miniature model of the target population of the industry.

C. Phase-3 : Selection of clusters for interviewing purposes :

Out of the cluster list prepared during phase-2, a cluster was randomly selected in phase-3. All the firms in the selected cluster were interviewed if the total of such firms was five or less. In case of clusters of larger sizes, (that is those with more than five firms) the clusters were partitioned into sub-clusters . One of such sub-cluster was then randomly selected. Five firms of the selected sub-cluster were then interviewed. A listing of establishments was prepared is placed at the end of this report.

Reading the Tables in this report :

The numbers given in the Tables are column percentages.

Information on interpreting the table has been provided at the bottom of each table.

The question whose responses have been used to form the table appear below the table heading.

D. Caution in Interpretation :

While reading the tables, it may be borne in mind that the figures have emerged from survey technique. One of the peculiarities of survey method is reliance on the reporting of interviewees. The self reporting of the respondent may be somewhat off from reality owing to such reasons as lack of information with the respondent (such as wood consumption in last 3 years), inability to translate the required information in the desired format (e.g. inability to express things in percentages), failure to articulate his view point (e.g. what problems one faces regarding wood procurement) and more importantly, the sensitive nature of question (e.g. what is your gross annual volume of sales).

Under such background, as applied to all surveys of this nature, the findings of the study should be taken as "Suggestive and Indicative" only. The figures merely reflect general trend of the industry. The accuracy and precision found in historical accounting data is not available in survey data.

Cluster Sample Sites :

The distribution of cluster sample sites is reflected in Table-1. Among the approved sample sites, furniture manufacturing industry was found at the lowest ebb and so negligible in district Khuzdar, Balochistan, hence it is not included in the survey.

Establishment :

Table-2 shows the year-wise establishment of the manufacturing units. It would be readily seen that the largest numbers of units, that is 48 of them, got established between 1980 and 1990 in 10 years period of time. In contrast, there existed only 14 manufacturing units which started work before the years 1970. Such spectacular increase, of almost $3\frac{1}{2}$ times, in the past 10 years is certainly something to ponder about. Does this more than threefold expansion point toward some extremely important factors that compellingly draw the attention for a thorough investigation? Indeed this modest research survey carried out in a brief period of time, with a set questionnaire, cannot be expected to provide such searching indepth answers. However, as the reader progresses through this report, considering the responses to the questionnaire, a clearer picture may emerge.

Wood Processing :

Harvesting

It will be seen at Table-3 that harvesting is not done by any firm. Apparently the furniture makers are not growers of wood. All the manufacturing units obtain their required supplies of wood from wood producers, often times indirectly, involving middle man.

Transporting

Of the 63 manufacturing units surveyed, only 10% of them make arrangement for transporting wood to their units while all others have the wood delivered to their factories.

Debarking

Twenty two percent firms out of those covered by the survey have their own arrangement for debarking.

Sawing/Slicing

Forty eight percent out of the 63 firms surveyed, have their own machinery set up for sawing/slicing while the rest obtain sawⁿ/wood from sawmills according to their own specifications.

Fabricating

By far the most important work of fabricating is almost an exclusive domain of the manufacturing units in which 95% firms are engaged. They concentrate on this aspect of processing (The ^{remaining} 5% could be an investigative error).

Finishing

All the firms covered under this study, that is the entire community of furniture manufacturers, do the finishing work themselves. According to them, it is fabricating and finishing where the pride of performance is displayed. It is in this field where they have the edge in competition and therein lies the secret of success in this business.

In simple terms it can be stated with a degree of finality that fabricating/finishing is the essence of furniture industry enterprises. Of those covered by this survey, only 24% are wholesale distributors while 82% are retail dealers. This underlines the fact that furniture manufacturing industry is mainly a retail-oriented business.

Equipments :

Equipment types used in the manufacturing units along with the sizes are shown in Table-4. The main four types of equipment widely used in the industry are :

Vertical Band Saw
Horizontal Band Saw
Thickneser Machine
Jointer

Beside the main equipment listed in Table-4, there are a great variety of tools used by the manufacturers which are known by their local names. These are either modified versions of foreign tools or indigenously made or some primitive tools updated and found most useful. However the point which must come distinctly in focus is that though all the customary modern machinery is not used, and indeed most people cannot afford to import such equipment, yet the workmanship of a number of firms could compete with all-machine-made furniture in fashion abroad. Indeed some firms generally claim that a number of foreign nationals had the custom-made furniture from here shipped to their homes in Europe. One Pakistani

national, associated with this research-survey, provided evidence that he was a guest of an Englishman whose entire house was furnished with shisham furniture made in Gujrat and carried over to England !

Primary Products :

The answers received in response to this question not only indicate trends of life style but they also show what the customer demands are. Chairs, beds, sofa sets, tables, almirahs are the chief items in order of importance.

The annual average production of the following numbers give a fair idea of consumer demand.

Chairs	38620
Tables	8140
Beds	4628
Almirahs/Showcases	5925

The miscellaneous item not listed by specific names such as Tea trollies, cupboards, chest drawers, desks, racks etc. are more than 25,000 made during the last three years.

The year-wise figures 1987, 1988, 1989 show that the furniture firms have a considerably sizeable business and that there is an increasingly high demand for wood.

In order to obtain a fuller view of the production scenario the year-wise details may be seen at Table-5.

Operating Capacity :

Of the 63 manufacturing units surveyed, it was found that a small number of firms are operating at 30% of their capacity while the majority of them operate at 60% of their capacity. Some of them operate at 90% of their capacity which is the maximum. The reasons and causes are varied in nature. The most common factor is the matter of consumer demand. There are some who assert that owing to non-availability of high class wood, they cannot satisfy the heavy demands. These points would be covered and will be appearing elsewhere in this report.

The names of three firms operating at 90% has been specially shown separately in annex-I.

Requirement of Raw Materials :

Wood requirements during last 3 years (1987, 1988, 1989) of the manufacturing units, and the form in which they obtain it, is shown in Table-7, 7-A, 7-B, 7-C.

It may be noted that the four main wood species that are commonly required by the furniture manufacturers are needed in the following volumes on annual basis :

1.	Dayar	37	3%	16063 cft.
2.	Shisham	221	58	313787 "
3.	Mulbery	4.8	5	18428 "
4.	Kikar	2.1	2	7962 "
		6.7		<u>326,240</u>
		100		382,000

It may be seen in the table that Pines, Populars, Eucalypts are also being increasingly used in the furniture industry. The furniture of these species was not considered with favour a few year ago. Another significant point to note is that even though a very small section of the furniture industry has been covered by this survey yet the volume of wood consumption by the industry does denote a heavy demand for this commodity. All in all for 3 years Lumber needed is 144630 cft, the volume of logs required comes to 552216 cft, Branch wood volume needed totals 439943 cft. The least favoured are scants yet 8513 cft. of these are needed. This total 1145,302 cft of wood requirement. However the significant source which meets the wood raw material requirement of manufacturers is the private sector in 95 percent cases.

Wood Procurement Channels :

The responses received from furniture manufacturers with regard to the channels of wood procurement show that traditional as well as the modern transport is used for this purpose. It will be seen that the animal cart continues to be popular owing, perhaps, to being cheaper than other modes of transport. Besides the animal cart could operate in areas where modern mechanical transporters would refuse to go, such as areas with no metalled roads or fair weather roads. Where long distances are involved, roads exist and the volume of wood to be transported exceeds the carrying capacity of animal cart, trucks are employed. Preference is nevertheless shown to animal cart transport where distances could be negotiated easily. Railways play but an insignificant role. Labour also hand-carry the wood wherever it is easy to do so or they use push-carts.

Pricing :

The prices commonly paid for the respective primary wood species used by furniture industry are displayed in Table 9, 9-A. Table 10 shows the prices of secondary wood species.

The prices of various "grades" and species of wood which the manufacturing units purchase is rather an involved issue. These, as would be expected, differ from place to place. The "grading" of wood too, is a matter of individual judgement because there is no set standard to be followed, much less a universal criterion. The prices generally in vogue is also an issue mainly dictated by the wood-producer/seller, but well manipulated by the furniture industry. The tussle between the two parties is a perpetual phenomenon.

The prices of wood species differ from city to city, depending, of course, on what species is produced in the vicinity in that region. Shisham (D.sissoo) is the one species which is grown in almost every part of the country. Even so the prices fluctuate and differ from place to place. The minimum price of Shisham in Sukkur and Gujrat is Rs.35/cft. while its minimum price in Lahore is Rs.90/cft. The maximum price of Shisham is Rs.120/cft both in Sukkur and Lahore while it is sold at Rs.200/cft in Rawalpindi. Curiously enough, the minimum price of Shisham in Chiniot is Rs.70/cft and Rs.350/cft is the maximum. These differences cannot be explained in any rational manner though these may be argued about.

Dayar is a rarer species as compared to Shisham because it is grown only in the northern hills. The prices of Dayar range from Rs.105/- to Rs.300/- per cft. Walnut is a much rarer wood yet it is sold at Rs.300/- per cft in Rawalpindi and at Rs.350/- per cft in Karachi. Such is the spectrum of wood prices. However, it is easily discernable that market place, or the middle man, are the sources from where furniture manufacturers make their wood purchases. This fact, they assert ever so often to highlight the point that they seldom, if ever, depend on Govt. sources.

The other two primary species are Kikar and Mulbery. The former ranges from Rs.35/- to Rs.65/- per cft and the latter from Rs.50/- to Rs.60/- per cft.

The other indigenous species generally used by furniture industry are Pines which is available from Rs.240/- to Rs.250/- per cft and Partal sold at Rs.60/- per cft to Rs.100/- per cft.

As to the question that volume of the secondary species the furniture manufacturers could use, they respond with nebulous answers as there is no base for them to judge correctly. The lacquer furniture makers in Sukkur/Shikarpur District would be willing to pay Rs.300/- per cft for Bahan and yet the same wood would be sold for a song in Karachi.

Price rise trends :

It will be seen that price rise trend also varies from place to place. However the general rising prices trend is between 10% to 40%. Even if an average rise of 15% to 20% is assumed to be reasonably correct, it may not be a far fetched assumption because the price rise trend within an year in this country with regard to more essential commodities is over 10%. On the other hand the sale price of furniture prices is usually a great deal higher. It may be safely assumed that furniture manufacturers have a reasonably high profit margin which also partly explain why there has been such spectacular increase in the number of manufacturing units in the last 10 years vide Table-2.

-II

Annex/II lists the name of eight firms of good reputation and these have provided the rise in wood prices, which though vary are nevertheless more reliable. However, the point to be borne in mind is that these firms also aim at higher quality and paying a price or premium for quality is a universally accepted principle.

Wood Raw Material Supplier :

Table-12 shows the sources from where wood is commonly purchased by furniture manufacturers.

The important point to note is that the proverbial "middle man" agency plays a pivotal role just as he does in the case of other essential commodities. Of the firms surveyed, 67% of them deal with the "middle man". The tree growers have seldom a direct

contact to have opportunities of direct business dealing with the industry. In this case study survey, only 11% of the manufacturers had direct dealings with tree growers. It may be recalled that the issue of the sources of wood procurement was debated at length during the Seminar in Lahore, May 1990. This is such an important issue that it merits highest consideration by all those who are in the profession of cultivating tree crops, may be in private or public lands. The often debated perpetual problem of finding a coordinated symbiotic approach or relationship between the tree growers and wood-users has to be resolved. The sooner the better. Both the parties are bound to benefit.

The list of suppliers of wood for furniture in various cities is a lengthy one and it is set forth in Annex-III.

The furniture manufacturing units in Peshawar, for instance, all depend on the "middle man" who is mobile and keeps in close contact with the industrialist. He supplies the required species and volume of wood as and when needed. The "middle man" directly purchases wood from tree growers in the villages or farms.

Likewise the furniture dealers in Mardan purchase wood from the "middle man" who is paid on monthly basis rather than on each delivery of the commodity.

Dera Ismail Khan happens to have timber merchant shops from where the furniture makers obtain their wood supplies. However even in D.I. Khan, preference is given to the "middle man" who sells them cheaper timber than the merchants.

Lahore is a city with numerous timber markets, five of these market places were specially mentioned from where wood is purchased by furniture industry and they have a wide choice to select the shop they prefer.

Gujrat likewise has a large market where timber trade is being carried out by a number of merchants. Here too, the furniture industry purchases wood from these merchants who have a wide range of species and quality of wood.

Chiniot is an important centre of furniture industry and has the advantage of having a number of shops who deal exclusively in timber. Much of the purchases are made from these timber merchants but "middle man" has his own importance who sells wood on credit albeit on higher price because he does not demand downright payment.

The furniture industry in Sibi obtains its wood supplies from sawmills of Faisalabad and pay for more transport cost. Although Quetta has a number of timber merchants yet they prefer to get supplies from Faisalabad, which is rather surprising. They feel they get the supplies more economically.

However furniture makers in Quetta procure their wood supplies from various timber merchants located in the city.

The furniture makers in Hyderabad are particularly choosy who get their wood supplies from far off places like Rahim Yar Khan, Sadiqabad(Punjab) but some purchase from local timber markets in Hyderabad or from Sukkur.

The furniture dealers in Karachi get their supplies from a number of places of Punjab and also purchase from the local markets within Karachi. This is just a question of having a better deal and the relationship between the supplier and the purchaser.

Rawalpindi's furniture makers also reach Abbottabad, Bannu, Kohat and even Sindh for their wood supplies.

These sort of business dealings are not easily understandable yet their assertions that they look for more economical rates and obtain the wood supplies from whomever they could get better deal cannot be brushed aside.

Wood Availability Problem :

Wood availability problems that the furniture makers now have or expect to have next year have been mentioned in annex-IV.

It seems appropriate that the main problems of wood availability, as related by the furniture makers, are highlighted because these differ from region to region.

Peshawar

1. The non-availability of seasoned wood is a legitimate complaint.
2. Govt. Taxes levied on wood and monopolisation of wood by Govt. Forest contractors is another valid complaint.

Mardan

Non availability of seasoned wood and levy of taxes are the main problems, the latter resulting in ever increasing prices.

Dera Ismail Khan

Increased tax on forest wood as compared to previous year has resulted in higher cost.

Rawalpindi

Increasing cost of wood, high taxes, rising transport charges, lack of good quality wood are the main problems encountered.

Lahore

Shortage of wood, high taxes are the main problems voiced by furniture makers of Lahore.

Gujrat

This is one city where furniture makers do not have to encounter any problem except that the timber merchants cheat on measurement.

Chiniot

The complaints from here are the problems with the middle man who hoards, prefers to give wood supplies on credit and charges higher prices ! They also complain about taxes.

Sibi & Quetta

The problems they face are lack of best quality wood.

Hyderabad / Karachi

Frequent price escalation of wood is the main problem for furniture makers in these two cities.

Current And Future Consumption :

Table-13 reflects the estimate increased requirement/consumption of the wood volume as projected by those interviewed (Current requirement/consumption has already appeared in Table-7).

The four most favoured species needed by the furniture manufacturing units, they assert, remain in short supply, Owing to such shortages they have to work below their capacity and it is beyond their power to overcome this difficulty. According to these furniture makers, they will be happy if the following additional supplies of each of the four primary species could be made available :-

<u>Species</u>	<u>Additional Volume needed</u>
Dayar	7567 cft.
Shisham	16635 "
Kikar	1400 "
Mulbery	3305 "

Apparently Kikar wood supplies should be available and pose no problem. Anyway there is no recorded evidence to back up their assertions. Nevertheless the additional requirement appears logical because most of them are indeed working below their capacity.

The responses obtained to this query were so variable that it is well nigh impossible to give a figure for future consumption and requirement. No manufacturer would even risk a guess for fear of being completely off the target because he would have no means to know how much customer demand he will have, even in the next few months. So most of the firms work on the basis of current requirements not planning their future needs, yet fully aware of the sources from where they could always draw future supplies as and when such need arose. Since 60% of those interviewed could give no response, we might take the remaining information with caution.

Other Significant Material :

The significant materials, other than solid wood, used in connection with the furniture is shown in Table-14.

Even though the bias and preference of consumers as well as the manufacturers of furniture continues to be solid/^{wood} yet other material such as Chipboard, Hardboard, Plywood, Veneer are now being increasingly used. The reasons are mainly economic. Solid seasoned wood is expensive, and quality added makes it still more expensive so that the furniture price shoots up beyond the reach of an average or middle class consumer. Most of the reputable furniture makers use these materials discreetly; as for example making the back of a cabinet or cupboard with hardboard so it remains invisible. Furniture made of plywood or veneer is also cheaper than solid wood. No wonder Pakistan

imported Rs.31329000/- worth of Veneers, Plywood boards (reference Pakistan Statistical year book 1989, Govt. of Pakistan). A glance at the Table-14 would reveal that the quantities of these materials being used in furniture industry are significant. With a majority of furniture makers, these materials are an essential parts of fabrication

Wood Waste, Its Forms, Use and Prices :

The information obtained regarding annual volume of wood waste is tabulated in Table-15 and wood waste prices tabulated in Table- 15-A.

Fifty eight out of the sixty three firms responded to this significant query and the data provided by them evidently shows that the majority of manufacturers are not unmindful of the microeconomics. Sixty percent of the manufacturers have 20% to 25% of wood waste. The forms of wood waste in the shape of wood pieces, splints, sawdust are saleable and disposed of at fairly good prices. These 58 firms produce 1574500 cft/^{of} wood waste which/^{is} sold away by weight. There is also an element of generosity as the shavings are given away free to the workers and the poorer section of the population.

Manpower :

The man-years of employees including managers, professionals, staff and labour is listed in Table-19.

The figures in this table indicate quite clearly that the furniture industry is not labour-intensive. And the obvious reasons are that only the skilled labour finds a place in furniture manufacturing

units. Every firm looks for, and employs, highly skilled carpenters who are paid reasonably well and the best of them are even patronised so they do not drift away seeking higher wages elsewhere. An effort is therefore made conspicuously to employ highly skilled workers keeping the number to a minimum necessary for maximum out turn of high quality product. On the average, ten persons work in each of the manufacturing units covered under this survey; ranging from just one person to as many as eighty at the two extremes.

Additional Information :

Some of the relevant information not otherwise covered under the questionnaire, appears worth mentioning.

1. Some firms in Mardan, Peshawar, D.I. Khan, Chiniot, Rawalpindi were envious, if not jealous, of the "mushroom growth" of furniture industry which have caused a setback to their business. These firms were also critical of the "multiple taxes" being levied.
2. At least four firms of Chiniot, Sibi and Quetta suffer from electricity shortages.
3. Another five firms of Quetta and Rawalpindi encounter problems connected with labour shortage.
4. Three firms located in Quetta & Rawalpindi find it problematic to obtain loans from Banks.

5. One firm in Quetta expressed concern about lack of cooperation from the Department of Industries. Others, though felt the same pinch yet, would not wish to go on record.

6. Several firms want to equip their firms with more modern sophisticated machinery but do not have the resources to import owing to high import duty.

C O N C L U S I O N

It would be appreciated that this survey, modestly designed as it was, has yielded the information that it was meant to furnish. The data collected and presented provides a base for defining the parameters for an all-embracing, elaborate study in the future. These indicative results certainly lift the veil and unfold what was otherwise not well known about an unorganised yet an important industry of the country. While this study reveals only one facet, there are other 4 studies that the sponsors had organised, and when all the data is gathered and facts marshalled, a complete or sharper picture may finally emerge.

It may be argued that this survey has covered 12 cities yet the investigation was confined to only 63 manufacturing units of the furniture industry. Consequently this work could not be considered to provide such a data base or such irreputable evidence, or such yardstick that could be applied to the entire industry. In other words, an administrator or policy maker may be reluctant to take policy decisions on this basis^{alone}. One would not dispute on this. On the other hand, the facts and data marshalled under this investigation survey, the first of its kind in this country, does provide enough raw material to stimulate interest and engage attention of all concerned to the state of affairs obtaining in an essential industry of the country which has never received the consideration it merits or deserves. If this report convinces the policy decision makers that a nation-wide thorough & elaborate

survey of the furniture industry must be undertaken with a view to eventually ameliorate the economy, this work would have served its purpose. This is what could have been accomplished within the limited scope that this work was undertaken and within the short space of permissible time.

What short/long term measures must be adopted to produce adequate volume of good, high quality wood of suitable species needed by the furniture industry ? What ought to be done to ensure supplies of seasoned wood to the furniture industry ? How could the wood prices be rationalised and the industry helped to obtain wood at reasonable prices ? What could be done to modernise the industry so as to help furniture makers to produce furniture of international standard ? How could grading of timber qualities standardised ? Since the mid-eastern countries generally import their furniture, could Pakistan's furniture makers be helped to get export oriented ? This report surely attempts to highlight and focus these problems but does not claim to provide solutions.

Finally we wish to congratulate Winrock International/USAID for their sincere effort in organising this much needed national survey and avail of this opportunity to thank them for assigning this work to us and reposing their confidence in us.

Distribution of Sample

Table - 1

CITY CLUSTER AREA	SIZE OF UNIVERSE	SAMPLE SIZE	SAMPLE PERCENT AT UNI- VERSE	SAMPLE PERCENT AT 63
Peshawar	31	5	0.30	7.93
Dera Ismail Khan	29	5	0.30	7.93
Mardan	34	5	0.30	7.93
Lahore	463	5	0.30	7.93
Chiniot	295	5	0.30	7.93
Gujrat	164	5	0.30	7.93
Rawalpindi	65	5	0.30	7.93
Quetta	35	5	0.30	7.93
Sibi	5	3	0.18	4.76
Hyderabad	105	5	0.30	7.93
Sukkur	60	5	0.30	7.93
Karachi	378	10	0.60	15.87
Total	1664	63	3.78	100 *

* Percentage may exceeds over 100 due to the rounding-up.

Year-Wise Establishment of Manufacturers

Table - 2

Y E A R	NUMBER OF FIRMS	PERCENT
Before 1950	5	8
1960	2	3
1970	7	11
1980	18	29
1985	12	19
July 1990	18	29
No Response	1	2
Total	63	100 *

* Percentage may exceeds over 100 due to the rounding off.

Q.2 When the firm was established ?

Stage of Processing

Table - 3

Stages	No. of Industries	Percent at 63
Harvesting	-	-
Transporting	6	9.52
Debarking	14	22.22
Sawing/Slicing	30	47.61
Fabricating	60	95.23
Finishing	63	100.00
Wholesale Distribution	15	23.80
Retail Distribution	52	82.53

Equipment in Use

Table - 4

Type of Equipment	No. of Mfg's.	Percent	Average
Vertical Band Saw	43	68	1.23
Horizontal Band Saw	13	21	1.23
Thicknesser	18	29	2.33
Press	18	29	1.06
Moulder	16	25	1.06
Drill	17	27	3.35
Jointer	8	13	1.00
Miscellaneous	57	90	7.19

Q.4 How many equipments of each type are used in your enterprise ?

Size of Equipment



Table - 4-A

Type of Equipment	Equipment Size in Inches	Number of Mfgs.
Vertical Band Saw	42	22
Vertical Band Saw	18	5
Vertical Band Saw	30	11
Vertical Band Saw	36	2
Horizontal Band Saw	56	1
Horizontal Band Saw	42	7
Horizontal Band Saw	30	2
Horizontal Band Saw	18	1
Thickneser Machine	20	5
Thickneser Machine	24	3
Thickneser Machine	15	3
Thickneser Machine	30	1
Thickneser Machine	18	1
Thickneser Machine	25	1
Jointer	20	4
Jointer	12	2
Jointer	18	1
Cutter	30	1

Primary Product *

Table - 5

Type of Product	1987 Total Product	Nos. of Mgfs.	1988 Total Product	Nos. of Mgfs.	1989 Total Product	Nos. of Mgfs.
Coaches	900	3	1050	3	1200	3
Chair	38462	45	41275	45	36124	45
Table	8470	40	8443	38	7508	37
Centre Table	1930	15	1846	11	1328	14
Sofa	2451	30	3272	35	2813	34
Bed	4382	39	4278	42	4526	42
Dressing Table	1145	16	1425	15	1699	16
Almirah/Showcase	5954	23	6200	26	5622	25
Bench	4000	3	5800	4	3700	3
Miscellaneous **	7005	14	8975	17	9103	18
Total	74699		83264		73623	

* Products of 58 firms. The firms in D.I. Khan refused to answer.

** Dual Desk, Mono Desk, Kitchen Set, Wall Unit, Tea Trolley, T.V. Trolley, Cupboard, Partition Screen, Magazine Rack, Chest open Drawers are the items included in Miscellaneous.

Pattern of Capacity Utilization

Table - 6

Capacity Utilization	Number of Mfgs.	Percentage
30 %	4	6
40 %	7	11
45 %	4	6
50 %	7	11
55 %	9	14
60 %	12	19
65 %	4	6
70 %	6	10
75 %	2	3
80 %	2	3
90 %	3	5
No Response	3	5
Total.	63	100 *

* Percentage may exceeds over 100 due to the rounding up.

Q.6 What percent of capacity are you operating at ?

Requirement of Wood Species

Table - 7

Units in Cft.

Wood Species	L O G W O O D		
	1987	1988	1989
Shisham	144784 (38)	191995 (40)	167880 (39)
Deodar	14130 (5)	10000 (5)	9000 (5)
Kail (Pine)	647 (2)	694 (2)	600 (2)
Mulbery	4100 (2)	4000 (2)	3750 (2)
Poplar	-	-	-
Kikkar	-	-	-
Frash	-	-	-
Eucalypts	-	-	-
Partal	212 (1)	200 (1)	224 (1)
Total	163873 (48)	206889 (50)	181454 (49)

-- Figures in parenthesis represent number of firms.

Requirement of Wood Species

Table - 7-A

Units in Cft.

Wood Species	B R A N C H W O O D					
	1987		1988		1989	
Shisham	104340	(21)	106213	(21)	101710	(21)
Deodar	900	(2)	430	(2)	1400	(2)
Kail (Pine)	-		-		-	
Mulberry	18000	(3)	14000	(3)	9000	(3)
Poplar	18500	(3)	14000	(3)	9000	(3)
Kikkar	6400	(2)	3030	(2)	8020	(2)
Frash	4000	(1)	2500	(1)	4500	(1)
Eucalypts			8000	(1)	6000	(1)
Partal	-		-		-	
Total	152140	(32)	148173	(33)	139630	(33)

- Figures in parenthesis represent number of firms.

Requirement of Wood Species

Table - 7-B

Units in Cft.

Wood Species	L U M B E R					
	1987		1988		1989	
Shisham	36328	(5)	30725	(6)	50305	(8)
Deodar	3800	(3)	3830	(2)	3500	(3)
Kail (Pine)	400	(4)	570	(4)	500	(4)
Mulbery	822	(1)	809	(1)	805	(1)
Poplar	1800	(1)	2000	(1)	2000	(1)
Kikkar	2000	(1)	2436	(1)	2000	(1)
Frash	-		-		-	
Eucalypts	-		-		-	
Parbat	-		-		-	
Total	45150	(15)	40370	(15)	59110	(17)

- Figures in parenthesis represent number of firms.

Requirement of Wood Species

Table - 7-C

Units in Cft.

Wood Species	S C A N T					
	1987		1988		1989	
Shisham	1836	(10)	1948	(8)	3299	(10)
Deodar	200	(1)	500	(2)	500	(2)
Kail (Pine)	-		80	(1)	-	
Mulberry	-		-		-	
Poplar	-		-		-	
Kikkar	-		-		-	
Frash	-		-		-	
Eucalypts	-		-		-	
Partal	-		-		-	
Total	2036	(11)	2678	(12)	3799	(11)

- Figures in parenthesis represent number of firms.

Channels of Wood Procurement

Table - 8

Mode of Procurement	Number of Firms	Percent
Truck	5	8
Animal Cart	16	25
Other	1	2
Railway / Truck	1	2
Truck / Animal Cart	19	30
Truck / other	3	5
Animal Cart / Hand carried	4	6
Truck/Animal Cart/Hand carried	4	6
Animal Cart/Push Cart/Hand carried	5	8
Truck/Animal Cart/Push Cart/ other	1	2
No response	4	6
T o t a l	63	100 *

* Percentage may exceeds over 100 due to the rounding-up.

Q.8. How is wood delivered to your factory ?

Procurement Prices of Wood



Table - 9

Species	Wood Grade	Average Price in Rs./Cft.
Deodar/Dyar		300
Deodar/Dyar	A	260
Deodar/Dyar	B	105
Shisham		118
Shisham	A	125
Shisham	B	82
Shisham	C	80
Partal	A	100
Partal	B	40
Kail	A	240
Kikar/Babool	A	65
Kikar/Babool	B	54
Chilghozah	A	75
Mulbery	A	54
Poplar	A	39
Sofaida		30
Sofaida	A	29
Cheer/Fir	B	60

Q.9. How much do you pay for each type of wood raw material on a per unit basis ?

Potential Use With Price To Pay

Table - 10

Species	Price To Pay
Shisham	121
Kikar	136
Pane	300
Oak	250
Walnut	250
Farash	30

Cost Trend

Table - 11

Wood Cost up In Percent	Number of Firms	Percentage
No change	2	3
10	6	10
12	1	2
15	25	40
17	2	3
18	1	2
20	11	17
25	9	14
30	1	2
35	2	3
40	1	2
No Response	2	3
T o t a l	63	100 *

* Percentage may exceeds over 100 due to the rounding up.

Q.10 Are your average per unit wood costs the same as last year ?

Source Of Wood Procurement

Table - 12

Wood Purchased From	No. of Firms	Percent
Middle Man	42	67
Tree Grower	7	11
Tree Grower/Middle Man	6	10
No Response	4	6
Forest Auction/Middle Man	2	3
Forest Auction	1	2
T o t a l	63	100 *

* Percentage may exceeds over 100 due to the rounding up.

Q.11 From whom is wood purchased ?

Expected Volume of Annual
Consumption By Type of Wood

Table - 13

Species	Grade	Expected Volume In Cft.
Deodar/Dyar	A	1567
Deodar/Dyar	B	6000
Shisham		7950
Shisham	A	1602
Shisham	B	5466
Shisham	C	1617
Partal	A	291
Kail	A	406
Kikar	A	392
Kikar	B	1008
Frash		2150
Frash	A	450
Frash	B	2000
Mulbery	A	3305
Chilghozah	A	253
Poplar	A	3266
Sofaida		427
Sofaida	A	1400
Cheer/Fir	B	200

Q.14 What is your estimate regarding, annual future consumption of each type of wood used ?

Other Material

Table - 14

Material	Quantity in Sq.ft.	No. of Manufac- turers
Chip Board	30260	40
Hard Board	24480	30
Ply Wood	20920	33
Veneer Board	23280	33

Q.15 What significant other materials are used in connection with your wood based products ?

Table - 15

MSJ

Table Showing the Comparison of
Current Volume of Wood Consumption
And Waste by Sale Price

S. No of Mgfs.	Current Wood Consumption in Cft.	Wood Waste in kg.	Sale Price in Rs.27/- per 40 kg.
1	3000	13500	9112
2	1500	6750	4556
3	3000	13500	9112
4	1000	6750	4556
5	3500	15750	10631
6	2000	9000	6075
7	1700	7650	5163
8	1600	7200	4860
9	750	3712	2505
10	1000	4500	3037
11	4650	8370	5649
12	410	1845	1245
13	500	2250	1518
14	700	4725	3189
15	1050	7087	4784
16	830	4837	3265
17	790	4252	2870
18	730	3937	2657
19	14120	31770	21444
20	830	5602	3781

21	3830	17235	11633
22	4970	27945	18862
23	2250	7582	5118
24	1860	8370	5649
25	2160	9720	6561
26	1200	13500	9112
27	2050	9225	6226
28	5800	32625	22021
29	10900	61312	41385
30	9450	63787	43056
31	10000	45000	30375
32	17000	95625	64546
33	1200	6750	4556
34	1000	5625	3796
35	700	3150	2126
36	1500	6750	4556
37	1000	4950	3341
38	21200	119250	80493
39	2800	15750	10631
40	8050	54337	36677
41	17200	135450	91428
42	600	2700	1822

43	4000	27000	18225
44	4000	27000	18225
45	11000	74250	50118
46	2000	9000	6075
47	10000	67500	45562
48	11500	77625	52396
49	7500	33750	22781
50	14500	65250	44043
51	7500	50625	34171
52	6000	27000	18225
53	8000	54000	36450
54	4500	30375	20503
55	6000	40500	27337
56	4000	13500	9112
57	8000	54000	36450
58	4000	13500	9112
59	Wood not purchased	-	-
60	- do -	-	-
61	- do -	-	-
62	- do -	-	-
63	- do -	-	-
Total	-	1574500	Rs. 1062787

Annual Volume of Wood Waste

Table - 15-A

Number of Firms	Wood Waste in Percent	Percent
1	8	2
1	10	2
4	15	6
20	20	32
3	22	5
2	24	3
9	25	14
1	26	2
15	30	24
1	35	2
2	50	3
4	No Response	6
Total	63	100 *

* Percentage may exceeds over 100 due to the rounding up

Q.16 What is annual volume of wood waste ?

Distribution of Cost of Production

Table - 16-A

Number of Firms	Cost of Wood As Percent of Total Cost
4	40
9	45
23	50
5	55
1	57
10	60
6	65
1	70
4	No Response
63	-

Q.17 What is the distribution of your cost of Production ?

Distribution of Cost of Production

Table - 16-B

Number of Firms	Cost of Labour As % of Total Cost
1	15
5	20
1	22
1	23
5	25
1	28
15	30
8	35
20	40
4	No Response
63	-

Q.17 What is the distribution of your cost of Production ?



DISTRIBUTION of COST of Production

Table - 16-C

Number of Firms	Cost of Operating As % of Total Cost
19	10
1	13
18	15
1	17
17	20
1	25
1	20
1	35
4	No Response
63	-

Q.17 What is the distribution of your cost of Production ?

Total Number of Employees

Table - 18

Employees	Number of Manufacturers	Percent
1 to 5	18	29
6 to 10	21	33
11 to 15	11	18
16 to 20	6	10
21 & Above	3	5
No Response	4	6
T O T A L	63	100

One firm engages 80 man-years in their manufacture process.

Name & Address of Manufacturers Operating At 90 Percent Capacity
Shoaib Iqbal Decorum Furniture, Meleod Road Lahore
Ahsan Furniture Mohallah Tarkhana Chiniot. (Mr. Haji Ahsan Councillor)
Al-Majeed Furniture Tehsil Road Chiniot (Mr. Jaleel Ahmed) Ph. 2284

Wood Cost up In Percent	Name & Address of Manufacturers
30	Dastagir Sahib, Lahore Furniture Melood Road, Lahore
25	H.M. Hayat & Sons Ltd., Furnishing & Household Dealers, P-43, Bank Road Rawalpindi
25	Frameo Furniture House, Murree Road Rawalpindi. Ph: 844321
35	Al-Majeed Furnitures, Mehallah Tarkhana, Chiniot (Haji Abdul Majeed) Ph: 2284
35	M/s Alvi Furniture, Tehsil Road Chiniot
40	M/s Wood Packers Art, Furniture Tehsil Road, Chiniot (Sheikh Anis Jawaid) Ph: 2946
35	Mohakam Furniture Mart, Quetta
25	Alig Furniture Mart Quetta

Names & Addresses of The Middle Men/
Wood Suppliers As Told By The Respondents

Annex-II

1. Mobile middle man who purchase trees on large scales in the villages and supply to us Peshawar.
2. Mobile middle man supply the wood and payment is made on monthly basis Mardan.
3. Sultan Wazir, Timber Merchant, Circular Road D.I. Khan
4. Haji Sons Timber Market, Lahore
5. Sadaqat Timber, Dargai and Timber Market, Lahore
6. Faqeer Hussain, Timber Market, Gujrat
7. M. Arshad, Timber Market, Gujrat
8. Faqeer Hussain, Railway Road, Gujrat
9. Riaz Hussain, Railway Road, Gujrat
10. Mirza & Co. Timber Market, Faisalabad
11. Mr. Iqbal, Timber Market, Faisalabad
12. Mirza Mohammad Akram, Timber Market, Faisalabad
13. Mirza & Company, Timber Market Faisalabad
Timber is also procure through Multan & Burewala
14. M. Farooq, Timber Market, Faisalabad
15. Esa Khawaja Ara Machine, Faisalabad
16. Nabi Balhsh Ara Machine, Sibi
17. Balochistan Timber Depot, Quetta
18. Rashid Zauner Timber Depat. of Balochistan Timber Depot.
19. Shauheen Timber Depot, Markangli Road, also from National Timber depot, Quetta

20. Mr. Jan Latif, Rahim Yar Khan.
21. Haji Jan Mohammad, Mirpur Mathelo, Distt. Sukkur.
22. Mr. Gul Perwez Khan, Timber Market, Faisalabad
23. Mr. Ali Nawaz, Timber Market, Sadiqabad
24. Mr. Mohammad Ghaffar, Rahim Yar Khan
25. Mr. Mohammad Rafiq, Mirani Road, Sukkur
26. Mr. Mohammad Ali, Sadiqabad
27. Mr. Faqeer Mohammad, Rahim Yar Khan
28. Mr. Mohammad Yameen, Rahim Yar Khan
29. Mr. Risa Deen Kandhar, Taluka Rohri, Distt. Sukkur
30. Mr. Rehmatullah Khan, Forest contractor,
Mirpur Mathelo, Distt. Sukkur
31. Haji Sideman, Hutta Road, Sukkur
32. Mr. Peer Bukhsh, F.C. Area, Karachi
33. Mr. Taj Mohammad, Faqir Wali, Rahim Yar Khan
34. Mr. Yar Mohammad, Wood Contractors, Attock

Wood Availability Problems

Annex - IV

Availability of Wood	Number of Manufacturers
Non Availability of Seasoned Wood	4
High Prices of Wood	37
Non Availability of Wood on Credit	7
Good Quality of Wood is Not Available	7
Transportation Problem	9
Price Hike Due To Hoarding By Middle Man	3
No Response	4
T o t a l	71 "

Total exceeds because of multiple problems.