
Upgrading the
Central Java Wood Furniture Industry:
A Value-Chain Approach

by:
Ann Christine Ewasechko

International Labour Office

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Upgrading the Central Java Wood Furniture Industry: A Value-Chain Approach

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Acronyms

ASMINDO	–	Asosiasi Industri Permebelan & Kerajinan Indonesia (Indonesian Furniture Industry and Handicraft Association)
ATIKA	–	Akademi Teknologi Industri Kayu
BDS	–	business development services
CEMSED	–	Centre for Micro and Small Enterprise Dynamics
ENGO	–	environmental non-governmental organization
FDI	–	foreign direct investment
FEDEP	–	Forum for Economic Development and Employment Promotion
GTZ	–	German Gesellschaft für Technische Zusammenarbeit
HRD	–	human resource development
ILO	–	International Labour Office
IFP/SEED	–	InFocus Programme on Boosting Employment through Small Enterprise Development
JICA	–	Japanese International Cooperation Agency
MSMEs	–	micro, small, and medium sized enterprises
NGO	–	non-governmental organization
OECD	–	Organization for Economic Co-operation and Development
OSS	–	One Stop Service
PIKA	–	Pendidikan Industri Kayu (Educational Institution of Woodworking Technology)
SMEs	–	small and medium sized enterprises
SRIUp	–	Socially-Responsible Industry Upgrading
UN	–	United Nations
USAID	–	United States Agency for International Development
WTO	–	World Trade Organization



Foreword

Furniture production in Central Java has spawned a long tradition of skills and production techniques that have been passed down from generation to generation. This industry experienced a strong revival in the 1970s and rapidly penetrated global markets during the 1980s and 1990s, leading to an intense process of local industrial expansion and strengthening of inter-firm relationships of production, sales and out-sourcing of skilled carving work within SME clusters. However, this vibrant growth in wood furniture exports showed signs of decline by the late 1990s as more countries entered into this promising and profitable area of trade. This drop in sales and exports had a strong negative impact upon the range of micro, small and medium sized firms and the workforce in Central Java, where the wood furniture industry is the primary export sector and a major employer.

The case of this industry, and the plight posed for the small enterprises and the negative consequences for the scale and quality of employment, caught the attention of officials at the International Labour Office in Geneva, in the ILO's Sub-Regional Office in Manila and in the Area Office in Jakarta. This case constitutes a

particularly vivid example of the opportunities as well as the pressures that globalization poses for local industries in developing countries.

Over the course of two years, a programme of work evolved, concentrated on the workers in SMEs in the Jepara region of Central Java province. Links were forged between several European academic institutions and local universities and training institutes in Jakarta and Central Java. Stakeholders from government, industry and workers' organisations were drawn together surrounding issues of common concern. A practical analytical approach, driven by a strong desire to understand and absorb the dynamics of the sector, emerged as the centrepiece of discussion. This approach, broadly based on a value chain methodology, is now gradually being introduced as the basis for designing competitiveness upgrading plans in other sectors in Indonesia and elsewhere.

There is reason to be pleased with the enthusiasm that this programme of activities has encouraged. However, the work has only begun. An understanding of the challenges and opportunities facing the wood furniture sector in Central Java has been

enhanced, and now a targeted multi-player effort is required to embark on the next phase. For this, the ILO is promoting a socially responsible industry upgrading strategy. The time is ripe to bring together key players along the value chain to design and build consensus around a clear and concerted strategy that has at its heart a vibrant SME sector, new market opportunities, job quality, and a deeper respect for environmental constraints.

The ILO will continue to advance its objectives of social dialogue, improved productivity and competitiveness, employment (especially of youth), and job quality. Using the past two years as its guide, it will also work to stimulate broader donor interest in

working together, alongside our Indonesian partners, to help with implementing strategies that will sustain the competitiveness of this industry and the source of quality jobs for workers.

It is the intention of this report to be a vehicle to share the ILO experience with other interested members of the public and private sectors, including the bilateral and multilateral donor community. This report is organized to document our methodology for research and consultation, report on the findings of this programme of activities, and outline the pillars of a future plan of work. It is hoped that this will be a point of entry for further dialogue with other interested partners for development.

Werner Konrad Blenk
Subregional Director
ILO Subregional Office for South-East Asia and the Pacific

Alan Boulton
Director
ILO Jakarta Office



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The background studies and cluster survey involved in the early stages of this work benefited greatly from the efforts of researchers at the Center for Micro and Small Enterprises Dynamics (CEMSED) in Salatiga, under the coordination of Sri Sulandjari and Neil Rupidara, as well as very useful contributions received from Professor Henry Sandee at the Free University of Amsterdam. Research activities also benefited from contributions from Philippe Guizol of the Center for Forestry Research in Bogor and conceptual guidance as well as leading a capacity-building seminar on value chain analysis by Professor Hubert Schmitz from the Institute of Development Studies at the University of Sussex, England. Consultations with Mr. David Brown from the DFID Multi-Stakeholder Forestry Programme were extremely informative.

At the industry level in Jepara, very useful support was received from a number of key agencies. We would like to mention in particular the Forum for Economic Development and Employment Promotion (FEDEP) in Jepara, especially from the Executive Secretary Mr. Adhy Setiyawan and the FEDEP School of Carving including Mr. Asep Suhsna and Mr. Hartoyo. We appreciate the collaboration received from the Jepara Branch of ASMINDO and the Head Mr. Achmed Shauki and also the

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We are grateful for the openness and cooperation of numerous national, provincial and local government officials, whose continued support and commitment has made a significant contribution to the good advance of this programme of activities and the possibilities for ensuring future phases of this work, including numerous officials from the Ministry of Economic Development, the Ministry of Forestry and Perhutani officials and the Department for International Cooperation, as well as the Provincial government of Central Java including the Governor himself, the Regional Development Planning Board of Central Java Province and the Jepara Prefecture.

The progress of activities was only possible thanks to the hard work and dedication of the national consultants who were responsible for working with local stakeholders, providing analysis when needed and overseeing the development of capacity-building materials. We are especially grateful to Derry Pantjadarma of the Ministry of Research and Technology for his continuous support to this work, to Pak Dwi R. Muhtaman in Bogor, Mr. Bambang Kartono a lecturer in design at ATIKA in Jepara and Mr. Y. Joko Tarkito who is the Director of PIKA in Semarang.

This study would have not been possible without the support of several ILO officials. The contribution of David Lamotte, Anne Posthuma, Peter Rademaker and Margaret Reade Rounds is especially acknowledged.



Executive Summary

Wood furniture production in Central Java has a long history and is a major economic sector. Today there are more than 30 furniture clusters in the province and timber furniture is the largest export from Central Java, representing about 35% (in 2002) of the total value of exports from the province and directly employing over 2 million women and men.

There is increasing evidence however that the wood furniture industry in Central Java is in distress. Many businesses have witnessed their sales decline and foreign business owners are leaving in search of more profitable opportunities elsewhere. The reasons for these developments include inefficient management practices and technologies, increasing global competition and declining demand as well as a declining availability of good quality timber.

Chapter One describes how the ILO's involvement with the sector started out of a concern for employment in an industry that experiences unprecedented expansion and hope but now appears to be suffering and unable to manage the forces of globalization.

In Chapter Two the actual research carried out is presented, starting with the cluster analysis and value chain analysis exploring from Central Java wood furniture clusters have generated synergies that enabled SMEs to strengthen their collective bargaining power in the value chain. Next the ILO launched a survey of global buyers to consider: (i) the perceived competitive advantages and disadvantages of suppliers from

region; (ii) the qualities that characterize a desirable product; and (iii) the trends in the industry that are likely to affect roles in the future. In terms of understanding the challenge of raw materials an overview was produced of the state of raw timber supply for the furniture industry in Central Java. The purpose of this exercise was to sift out the key myths and misconceptions surrounding the health of the island's teak plantations, the level of harvesting (legal and illegal), and the nature of the timber allocation system. On the basis of the research, a number of concrete tools were produced:

- A Guidebook for SMEs: How to Get and Use Effectively, Good Quality Timber.
- A multi-media training kit for SMEs and Accompanying Guidebook, that underscores that change in the industry is inevitable and that sets out practical steps that SMEs can do to mitigate the impact of this change.
- A video, which visually captures the challenges to the industry and stakeholder and expert recommendations about a way forward.

Chapter Three summarizes the key findings of the ILO programme of research, highlighting that the industry is highly fragmented, with many furniture-producing enterprises competing for business, sandwiched between a virtual monopoly and dwindling supply of teak timber, and a set of concentrated exporters and powerful international buyers. Many SMEs do not have direct relationships with international buyers, nor information about where they fit in the value chain. They are

sub-contractors for larger orders and their power in the value chain is minimal.

The evidence is that elements of the Central Java wood furniture sector are stagnating, with exports declining and foreign business owners leaving in search of more profitable opportunities elsewhere. The decline in the availability of good quality teak, ebbing demand for Central Javanese timber furniture products, and systemic internal efficiencies are pressures too powerful to ignore. Employment and job quality are at stake.

Chapter Four identifies the main challenges facing the wood furniture sector in Central Java. First the declining supply of good quality timber from responsible forestry practices and the way the timber is distributed and marketed. These issues relate to the larger question of sustainable management of forestry resources in Indonesia. A second challenge is represented by inefficiencies in internal management and technology being employed in the industry. This covers poor quality control - leading to inconsistent, sometimes poor quality of final products - an absence of standards in the industry, and the overall low level of mechanization. Finally in terms of competing in worldwide markets, the price of Indonesian furniture are considered high for the quality on offer. At the same time, there are concerns that the design of products does not sufficiently evolve with changing trends in the market. Other issues affecting the competitiveness of the Indonesian industry include production capacities, where the Indonesian industry is seen to be fairly flexible and responsive. Finally the buyers indicated working conditions as a general concern, with Indonesia being seen as on similar levels as its immediate competitors.

The concluding Chapter Five recognizes that changes in both the structure of the industry and the employment landscape are inevitable. Unmanaged, this change will result in reduced income generation, poorer job quality and, more generally, increased poverty in the region. The report sets out a approach that encourages the development and implementation of a socially



responsible industry upgrading strategy that can turn around a “race to the bottom”. The proposed upgrading strategy builds on the strengths of the industry, while mindful of the very real constraints of raw material supply. It sets out five areas for concrete action by a range of identified stakeholders: i) Raw Material Diversification, ii) Design Upgrading, iii) Production and Technology Upgrading, iv) Skills Upgrading / HRD and v) Market Diversification

For this strategy to be successful, it must be accompanied by multi-stakeholder social dialogue and advocacy for stakeholders throughout the value chain as well as institutional Capacity Building - of training institutes, business development services, associations to help implement an industry upgrading strategy.



Ringkasan Eksekutif

Produksi mebel kayu di Jawa Tengah mempunyai sejarah panjang dan merupakan sektor ekonomi utama. Saat ini terdapat lebih dari 30 klaster mebel di provinsi ini. Mebel kayu merupakan komoditas ekspor terbesar dari Jawa Tengah, mewakili sekitar 35% (tahun 2002) dari keseluruhan nilai ekspor dan secara langsung mempekerjakan lebih dari 2 juta perempuan dan laki-laki.

Meski demikian, banyak bukti memperlihatkan kondisi industri mebel kayu Jawa Tengah saat ini semakin memprihatinkan. Banyak para pengusaha mebel merasakan penurunan tingkat penjualan dan pemilik usaha asing pergi mencari peluang yang lebih menguntungkan di tempat lain. Hal tersebut disebabkan praktek dan teknologi manajemen yang tidak efisien, meningkatnya persaingan global, menurunnya permintaan, serta menurunnya ketersediaan kualitas kayu yang bagus.

Bab Satu menggambarkan bagaimana peranan ILO terhadap sektor ini diawali dari permasalahan lapangan kerja di industri yang mulanya memberikan perluasan dan harapan besar, namun kini terpuruk dan tidak mampu menghadapi kekuatan globalisasi.

Dalam Bab Dua dipaparkan temuan-temuan penelitian, diawali dengan analisis klaster dan rantai nilai (*value chain*) yang menyoroti bagaimana klaster mebel kayu Jawa Tengah telah

menghasilkan sejumlah bentuk kerjasama yang memungkinkan usaha kecil menengah (UKM) memperkuat posisi tawar mereka dalam rantai nilai. Selanjutnya, ILO meluncurkan sebuah survei tentang pembeli global untuk mengkaji: (i) kemampuan dan ketidakmampuan daya saing dari para penyalur serta penyalur lokal; (ii) kualitas produk yang diminati; dan (iii) tren dalam industri yang kemungkinan mempengaruhi alur di masa datang. Dalam upaya memahami tantangan berkenaan dengan bahan baku dasar, telah dihasilkan sebuah tinjauan mengenai penyalur bahan mentah milik negara untuk industri mebel di Jawa Tengah. Tujuan dari tinjauan itu adalah untuk mengkaji mitos-mitos dan persepsi yang salah diseperti kesuburan pulau dengan perkebunan jati ini, tingkat pemanenan (legal dan ilegal), serta sifat dasar sistem alokasi kayu. Sebagai dasar penelitian, beberapa peralatan materi dihasilkan:

- Buku Pedoman untuk UKM: Bagaimana Mendapatkan dan Menggunakan Kayu Berkualitas Baik Secara Efektif.
- Alat pelatihan multi media untuk UKM serta Buku Pedoman yang menegaskan bahwa perubahan dalam industri ini tak terhindari dan merancang langkah-langkah praktis yang dapat dilakukan UKM untuk menanggulangi dampak atas perubahan tersebut.

- Sebuah video, yang secara visual memperlihatkan tantangan terhadap industri ini serta rekomendasi dari para mitra dan ahli tentang upaya melangkah maju.

Bab Tiga merangkum temuan-temuan utama dari program-program penelitian ILO, menggarisbawahi bahwa industri mebel kayu sangat terpecah-pecah, banyak pengusaha penghasil mebel berkompetisi dalam bisnis yang sama, serta bisnis ini terjepit di antara monopoli dan menurunnya penawaran kayu jati serta eksportir dan pembeli internasional yang sangat kuat. Sebagian besar UKM tidak mempunyai hubungan langsung dengan pembeli internasional, ataupun informasi mengenai posisi mereka di dalam rantai nilai. UKM merupakan sub-kontraktor untuk pemesanan dalam skala besar, namun posisi mereka di dalam rantai nilai rendah.

Bukti menunjukkan bahwa elemen-elemen dalam sektor mebel kayu Jawa Tengah terhenti, dengan menurunnya ekspor dan perginya pemilik perusahaan asing ke tempat lain yang lebih menguntungkan. Menurunnya ketersediaan kualitas kayu yang baik, berkurangnya permintaan produksi mebel kayu dari Jawa Tengah, dan lemahnya efisiensi sistem internal merupakan tekanan yang terlalu kuat untuk diabaikan. Lapangan kerja dan kualitas kerja menjadi taruhannya.

Bab Empat mengidentifikasi tantangan-tantangan utama yang dihadapi sektor mebel kayu di Jawa Tengah. Pertama, turunnya ketersediaan kayu berkualitas bagus dan bagaimana mekanisme distribusi dan pemasaran kayu. Isu-isu tersebut berkaitan dengan pertanyaan yang lebih besar dari manajemen berkelanjutan sumber daya hutan di Indonesia. Tantangan kedua adalah tidak efisiennya penerapan manajemen dan teknologi internal di dalam industri ini. Hal ini mencakup lemahnya pengawasan kualitas, yang mengarah pada buruk dan tidak konsistennya kualitas produk akhir, tidak adanya standar serta rendahnya keseluruhan tingkat mekanisme. Selanjutnya, berkaitan dengan kompetisi di pasar dunia, harga mebel Indonesia dianggap terlalu tinggi untuk tingkat kualitas yang ditawarkan. Selain itu, harga yang ditawarkan kepada pembeli mengalami kenaikan, meski harga eceran untuk mebel kayu sejenis di Indonesia dilaporkan mengalami penurunan. Pada saat yang sama, terdapat keprihatinan bahwa desain produk tidak mengikuti perkembangan tren di pasar. Permasalahan lainnya yang mempengaruhi daya saing industri mebel Indonesia adalah kapasitas produksi, di mana industri Indonesia dianggap cukup fleksibel dan responsif. Akhirnya,

pembeli menyoroti kondisi kerja, di mana Indonesia dipandang setingkat dengan pesaing-pesaing dekatnya.

Kesimpulan pada Bab Lima mengenali bahwa perubahan baik di struktur industri dan sudut pandang ketenagakerjaan tidak terelakkan. Ketidakmampuan mengelola, perubahan tersebut akan berakibat pada pengurangan tingkat pendapatan, lemahnya kualitas kerja dan, secara lebih luas lagi, memburuknya kemiskinan di daerah tersebut. Laporan ini mengemukakan sebuah pendekatan yang menganjurkan pengembangan dan pelaksanaan tanggung jawab sosial industri untuk meningkatkan strategi guna mengubah arah dari “perlombaan menuju dasar” ini. Peningkatan strategi ini dibangun berdasarkan kekuatan industri itu sendiri, dengan terus mempertimbangkan kurangnya bahan baku dasar sebagai hambatan utama. Laporan ini pun memaparkan lima aksi nyata yang dapat diterapkan oleh para mitra, yaitu: i) Diversifikasi Bahan Baku, ii) Perbaikan Desain, iii) Perbaikan Produksi dan Teknologi, iv) Perbaikan Keahlian/SDM dan v) Diversifikasi Pasar.

Agar strategi ini berhasil, harus ditunjang dengan dialog sosial berbagai mitra dan advokasi dalam keseluruhan rantai nilai, termasuk pengembangan Kapasitas Lembaga – dalam hal ini lembaga pelatihan, jasa pengembangan usaha, asosiasi untuk membantu menerapkan strategi perbaikan industri.





Chapter 1:

Commitment to Employment and SMES: Genesis of the ILO Central Java Initiative

Teak furniture production in Central Java dates back to pre-colonial times and is an important example of an industry whose production is organised in clusters. Jepara and Klaten are the two traditional clusters in the province that emerged before the 17th century. They grew to serve the demand of the royal families for carved wood furniture. Since that time, the art of carving has passed down from generation to generation.

In the 1980s and 1990s the industry profited from growth in domestic consumer among the growing Indonesian middle class. During this period, the industry became well-known throughout Indonesia and leading producers set up representative offices in the main cities. In recent years, the industry received a boost through the depreciation of the Indonesian currency. This contributed significantly to the improvement of the competitive position of the Indonesian teak furniture in the world market. By

2004, more than 30 furniture clusters existed in the province and timber furniture was the largest export from Central Java, representing about 35% in 2002¹ of the total value of exports and directly employing over 2 million² women and men. Generations of youth have watched over the shoulders of their parents and grandparents, as they anticipated the day when they too would be employed in the wood furniture workshops around the province. But what future lies ahead for these young girls and boys?

Pressures for Change

There is increasing evidence that the wood furniture industry in Central Java is in distress. Many businesses have witnessed a decline in overall sales, in particular exports, and foreign business owners are leaving in search of more profitable opportunities elsewhere in Indonesia or in other countries. Various reasons

¹ Provincial Office of the Industry and Trade in Central Java, Semarang: Report on commodities exports for 2001, 2002, 2003.

² ASMINDO employment figures for 2002 estimate over 2.3 million workers are employed in roughly 664,000 wood furniture units in Central Java, though the Executive Secretary estimates the number of workers more in the range of 3-3.5 million.

are given for the recent challenges to the industry, but in general the pressures for change can be grouped as follows.

Inefficient management practices and technologies: The rapid growth of the industry, following the depreciation of the Indonesian currency, required important adjustments in the clusters such as technology upgrading, a switch to modern designs, and more importantly, a shift from production for stock to participation in buyer/order-driven marketing channels. These changes happened very quickly and it will take time for new management and marketing practices to be adopted. In the meantime, the industry is developing an undesirable reputation for poor practices that affect quality and delivery.

Increasing global competition and declining demand: While global demand for wood furniture continues to expand, the production of hand-carved furniture products from Central Java has visibly fallen since its peak in 2000.³ Global buyers, driven by a range of decision-making factors, are looking to producers in other countries for innovative designs, lower costs, and greater reliability. The type of furniture that Central Java has traditionally produced has lost much of its appeal, although mass-produced, machine-made garden furniture continues to be manufactured in high volumes.

Declining availability of good quality timber: It is estimated that the total demand for timber to be used in the wood furniture industry in Central Java is about 1.8 million cubic meters a year⁴ - of which roughly 80% is currently teak. However, the productive capacity of Perum Perhutani is able to fulfil only roughly one-third of the demand for teak, with much of the remaining teak coming from private (including illegal) sources. The government has announced further cuts to the annual harvest rates. Thus, in the future, there will be even less teak. This lack of availability has resulted in more discriminating timber allocation practices – where firms having greater mobility, financing options and market sway can obtain the best quality of wood at the expense of those smaller and medium sized operations who depend wholly on local timber traders for their supplies.

Against this backdrop, further change in the structure of the industry is inevitable. Through these changes, jobs will be lost



The Legend of Jepara Wood Carving

“Hundreds of years ago there was a king who married a beautiful queen. When his queen died, the grief stricken king commissioned the finest painter in the land to paint her portrait. But a fly landed on the portrait, sticking to the paint. The king thought the fly was a mole and that only a lover could have known about the blemish. In anger he banished the painter to the forests of Jepara, where he taught the people how to create beautiful art by carving wood...”

As recounted by Arfin, a Jepara exporter, to his grand-daughter.

and new jobs will be created. As this industry faces pressure to restructure, it is in the interest of society that upgrading and diversification be carried out in such a way that maximizes favourable employment outcomes for all.

The ILO's Programme of Work

Notwithstanding the challenges facing this industry, international donor interest has been more focussed on other pressing forestry matters in the outer islands, where natural forests are under threat⁵ as well as other development efforts, including those that support SMEs in other sectors.⁶

The work of the International Labour Organization (ILO) in this industry has focused on the following activities:

- conducting background research on: (1) global trends in trade flows in the wood furniture industry and the implications this raises for SME furniture producers in developing countries; (2) a survey of production, employment and sales among SMEs in the major furniture-producing clusters in Central Java; (3) a

³ Kompas, May 15, 2002

⁴ CEMSED interview with Executive Secretary of ASMINDO, Central Java.

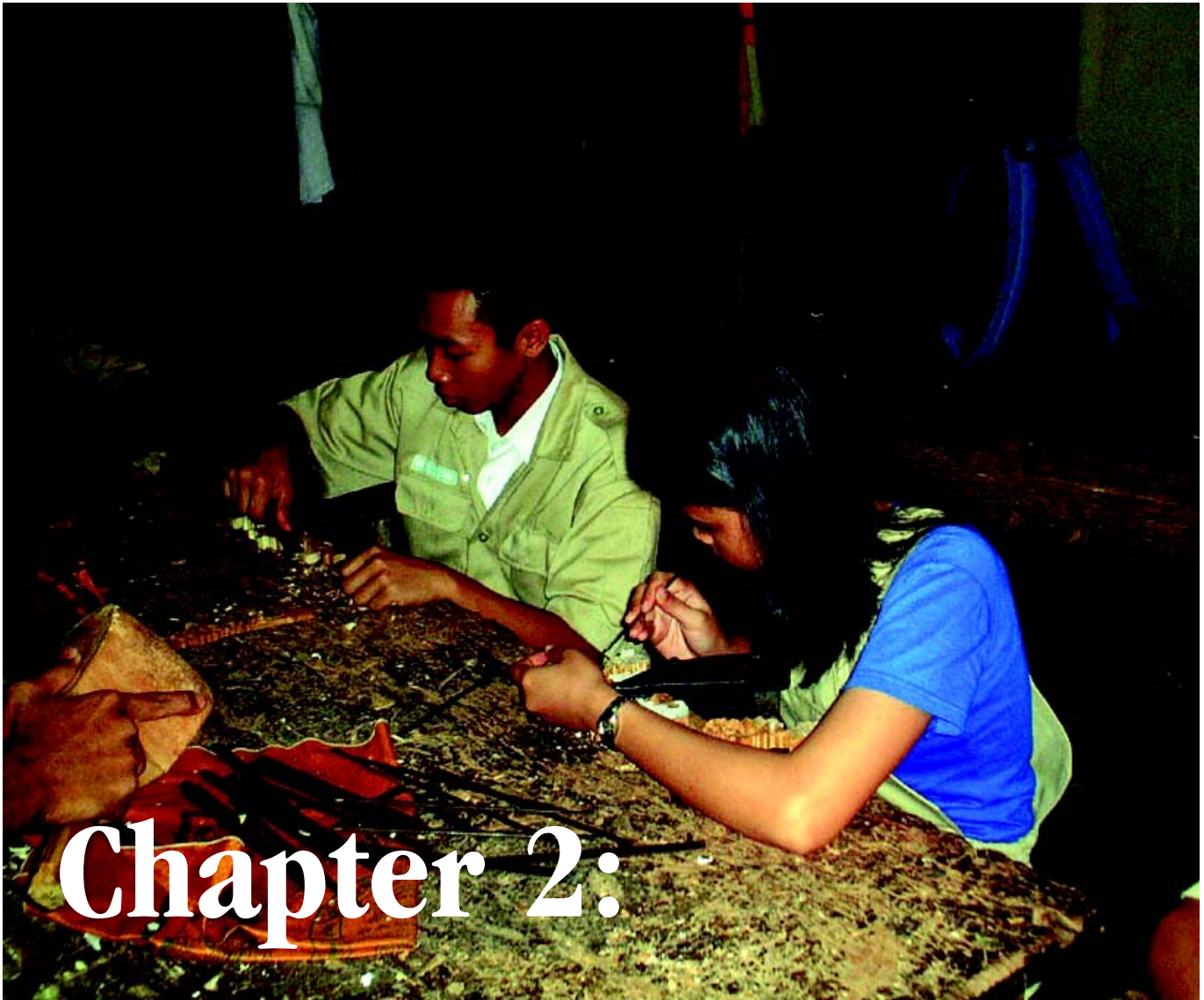
⁵ The Multi-Donor Forestry Programme is one such initiative.

⁶ The European Commission (EC), GTZ, JICA SWISSCONTACT, have also supported efforts toward skills or value chain upgrading in the Indonesian furniture sector.

review of the main issues and challenges in the Indonesian forestry sector; and (4) a survey of a selected group of global buyers regarding their perception of the wood furniture produced in Central Java;

- studying and presenting these main findings to enterprises, workers, government and other concerned stakeholders about the current structure of the industry and the pressures for change; and
- assisting concerned stakeholders to begin to consider the elements of a Socially Responsible Industry Upgrading Strategy that (a) helps local employers strengthen their competitiveness; and (b) minimizes the adverse impacts any restructuring they undertake will have on the workers, community and environment.





Chapter 2:

Methodology: A Practical Application of the Value Chain Analysis

There is no single answer to questions about why elements of the wood furniture, and particularly the carved teak wood furniture sector in Central Java have been losing ground in international markets. No wonder many small furniture manufacturers in the heart of Central Java have not fully understood the factors precipitating a declining interest in their products nor changes in international market conditions for this product. In an effort to help illuminate the challenges facing the industry, the ILO applied an analytical framework to these programme activities based on a value chain analysis¹.

A value chain analysis is an analytical framework which urges consideration of the various activities and roles of economic agents, throughout the various stages of production, including upstream inputs down to their final consumption by the ultimate

consumers. In the context of the wood furniture sector in Central Java, the value chain analysis proved to be an extremely useful tool, in that it:

- helped explain, in concise terms, the connection between all actors in the wood furniture chain of raw material inputs, production and distribution, including who adds value and where;
- described the nature of producer-buyer relations, including the power dynamics among these players as regards the control of information and allocation of scarce materials;
- illuminated the pressure points along the chain, where opportunities may exist for the more vulnerable players (such as SMEs) to cooperate in order to improve their

¹ See Manual for Value Chain Research on Homeworkers in the Garment Industry", by McCormick and Schmidt, Institute of Development Studies, Brighton, 2002.

- earning opportunities and working conditions;
- highlighted the need for improvements to the vertical linkages between firms that connect the producers to final markets;
- raised the need to build upon and improve the well-entrenched horizontal linkages that express themselves, in the timber furniture sector context, as clusters;
- provided an invaluable tool to present the findings of the ILO to key industry stakeholders, which in turn generated genuine discussion about practical steps to enhance the competitiveness of the industry.

The Research Agenda: An Evolving Approach

The development of an ILO programme of work around the value chain analysis in the wood furniture sector began as a concern over declining sales and the consequent impact this could have on employment in an industry that provided unprecedented expansion and hope but now appeared to be suffering and unable to manage the forces of globalization. As the main source of exports and employment opportunities, the wood furniture sector seemed the logical place to embark on a competitiveness upgrading assessment in Central Java. It became clear that the value chain approach, which had already demonstrated success in analyzing the garment and footwear sectors in other countries, was a logical methodology to apply.

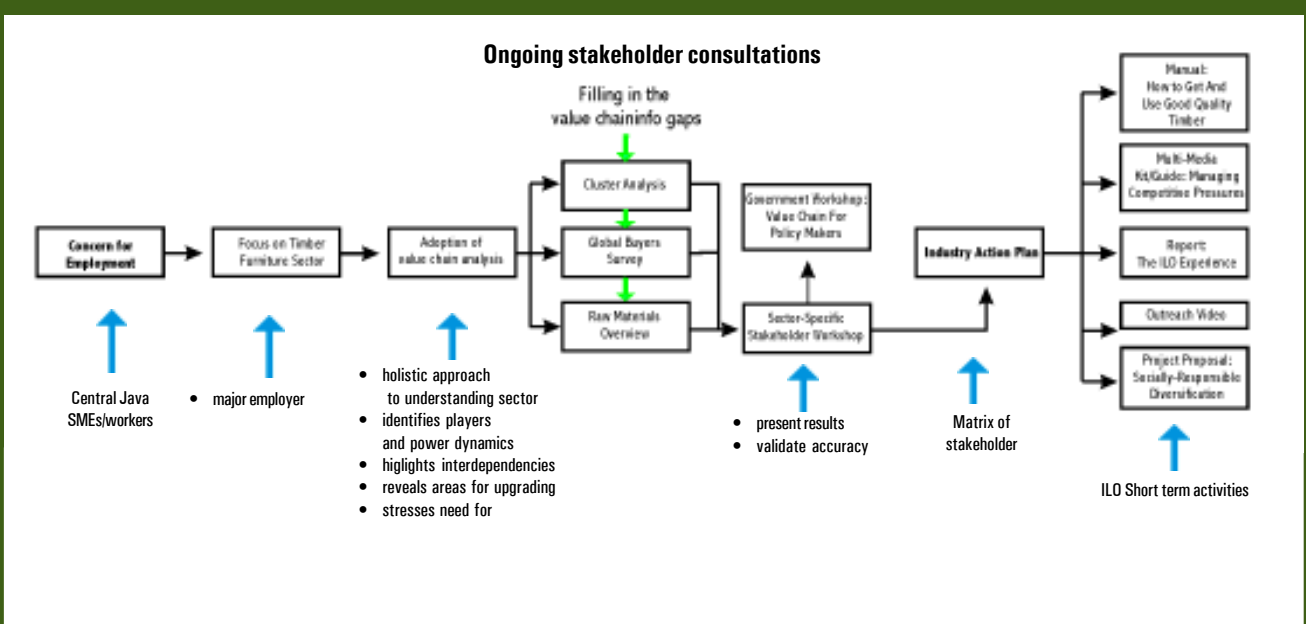
With the value chain as the analytical framework, a series of activities were initiated with a view to:

- conduct the research activities necessary to articulate the dynamics of the Central Java timber furniture industry, including an assessment of global trade flows in the wood furniture industry, a wood furniture cluster analysis, a global buyers survey, and an assessment of timber supplies in Indonesia and other primary and secondary data collection;
- identify ways to convert an academic analytical tool into a practical vehicle for stimulating learning, encouraging social dialogue, and formulating public policy.

Specifically, the stages in this programme of activities included (see Figure 1):

- a cluster analysis to describe and document the structure of the Central Java wood furniture sector and to identify value chain upgrading opportunities that could lead to enhanced competitiveness of the enterprises and improved quality of jobs in that sub-sector;
- a survey of the perceptions of global buyers about trends in the industry, factors they expect in suppliers and products, and relative strengths and weaknesses of major furniture producing countries in the region,

Figure 1: The ILO Programme of Activities in the Central Java Wood Furniture Sector



including buyers' views about the future of Jepara and Central Java furniture industry;

- an overview of the situation of timber supplies in Indonesia;
- sector-specific workshops with Central Java institutional and industry stakeholders to feed back the findings of the abovementioned studies and to come up with recommendations for improving the competitiveness of the industry;
- a government workshop with policy makers to identify the policy implications of the findings of the abovementioned studies;
- development of a proposed industry action plan, based upon a matrix of stakeholder activities;
- dissemination of the findings to small and medium enterprise (SME) owners and workers through multi-media materials and a video;
- development of training and resource materials for SMEs in the timber furniture industry on ways to improve productivity/competitiveness and job quality.

The next step will be to design a technical cooperation project to assist in the implementation of the Socially Responsible Industry Upgrading Strategy.

Stage 1: Cluster Analysis

Objective:

The significant productive capacity of, micro, small and medium enterprises (MSMEs) and their role in employment generation have been increasingly recognized by policy makers in recent decades. However, their potential contribution is often not fulfilled due to difficulties associated with their size and related challenges in acquiring resources, maximizing productivity, achieving economies of scale, and gaining a competitive edge to access new market opportunities.

The Central Java timber furniture sector is one such example where SMEs tend to work by way of linkages with other firms in close geographical proximity – that is, through the establishment of informal clusters. Aside from efficiency gains, such a

collaborative approach can pave the way for easier access to new technologies, in-house innovative capacity, and new product design capabilities – the results of which are greater value-added activities.

But have the Central Java wood furniture clusters generated the types of synergies that have enabled SMEs to strengthen their collective bargaining power in the value chain? Are clusters the appropriate focus when forging a path ahead? Is there an interplay between the slowed growth of mature clusters and the dynamism that exists when established entrepreneurs start up or transfer activities to new emerging clusters? Such questions launched the ILO-supported cluster analysis².

Methodology:

The objectives of the cluster analysis research initiative were to:

- profile a sample of leading wood furniture clusters in Central Java;
- analyse the dynamic linkages between of the clusters, their relationships with buyers and suppliers along the value chain, and the employment dimensions of these firms;
- assess the factors that encourage or hinder the development of the wood furniture industry in Central Java; and
- identify possible intervention strategies in support of the enterprises and workers at risk. (see Table 1).



²The cluster analysis was undertaken in collaboration with Sri Sulandjari and Neil Samuel Rupidara from the Centre for Micro and Small Enterprise Dynamics (CEMSED), Faculty of Economics, Satya Wacana Christian University, Salatiga, Indonesia. Henry Sandee, of the Free University, Amsterdam, also contributed to various stages of this initiative.

Table 1: Cluster Analysis Objectives

- GEOGRAPHICAL DISTRIBUTION OF CLUSTERS
- SIZE AND GROWTH OF CLUSTERS
- TYPOLOGY OF BUSINESS UNITS WITHIN CLUSTERS:
 - INFORMAL VS. FORMAL
 - INTRA-FIRM EMPLOYMENT LEVELS
 - MARKET FOCUS (DOMESTIC VS. EXPORT)
- CLASSIFICATION OF CLUSTERS
 - MATURE
 - EMERGING
 - UNDER-DEVELOPED
- LINKAGES BETWEEN CLUSTERS
 - RAW MATERIAL PROCUREMENT
 - SUPPLY OF LABOUR
 - PRODUCT MARKETING
- CLUSTER GROUP COMPARISONS, BASED ON:
 - EMPLOYMENT
 - WAGES
 - WORKING CONDITIONS
 - GENDER
 - SALES
 - WORK HOURS
 - PROFITS
 - PERCEIVED SUCCESS FACTORS
 - DEVELOPMENT OF A VALUE CHAIN

Source: The author

A questionnaire was designed to produce quantitative baseline survey data as well as qualitative data regarding knowledge, attitudes, and expectations as regards: company profile; operations; employment profile; marketing; firm performance; and institutional support issues. Ninety-four firms in fourteen of the thirty-two wood furniture clusters of Central Java participated in the data collection phase⁹. In all, enterprise owners, managers, and workers representing 3,369 employees were interviewed alongside workshop observation visits. The dynamism of the clusters was assessed, and grouped into three categories: mature; developing; and underdeveloped. Inter-cluster comparisons were then made.

Stage 2: Survey of Global Buyers

The cluster analysis provided a useful vehicle to understand the dynamics of the clusters in Central Java. However, as revealing as the insights of workers and managers in SMEs are about the state and challenges of their industry, the Cluster Analysis failed to provide much detail about the interaction between furniture producers and buyers and the reasons for the trend away from long-term business relationships and traditional Javanese wood furniture products. In other words, the cluster analysis successfully described similarities and differences among local producers and clusters, but did little in the way of:

- highlighting or explaining the importance of market pressures from abroad;
- understanding the strengths and weaknesses of Central Java businesses against those of global competitors; and
- offering an important – perspective about how well firms are operating, where the obstacles to success lie, and what might be the opportunities for progressive change.

No group was more acutely aware of this information gap than the stakeholders themselves, who repeatedly inquired about how they stacked up against the global competition and what factors influence global buyers' choice in suppliers.

To respond to these queries, the ILO launched a survey of global buyers¹⁰ to consider: (i) the perceived competitive advantages and disadvantages of suppliers and supplier regions; (ii) qualities that characterize a desirable product; and (iii) trends in the industry that are likely to affect flows in the future. What better way to learn why interest from buyers around the globe is waning than to ask the buyers themselves? The study generated many interesting results. The results also became a centrepiece for social dialogue and collective action.

Methodology:

Based on trade flows and industry trends, a list of countries were chosen, against which the performance of Central Java producers and their products would be judged¹¹. Since available trade data on wood furniture is only disaggregated so far, countries

⁹ These clusters represent roughly 43% of the total value of output of the wood furniture industry in Central Java. Specifically, the study clusters include those located in the following districts: Blora; Boyolali; Jepara; Kendal; Klaten; Pemalang; Purwodadi; Purworejo; Rembang; Salatiga; Semarang; Surakarta; Sukoharjo; and Tegal.

¹⁰ The Survey on Global Buyers was conducted in collaboration with Ann Ewasechko, an international consultant, based in Manila, Philippines. Niels Beereroort, Post Doctorate researcher, based in Cebu, Philippines, contributed in the data collection phase. ¹¹ The distinction between producers and products of a country or region was an important one in an industry so reliant on good relationships.

chosen for consideration were among the top eight furniture producing countries in East Asia – China, the Philippines, Thailand, Malaysia, and Viet Nam. However, the survey was intentionally designed to encourage buyers to comment on suppliers from other countries (or regions of Indonesia) as well, if they too were seen as directly competing with Central Java suppliers or wood furniture products.

An open-ended survey was then developed to better comprehend the factors that come into play when purchasing decisions by international buyers are made and, more generally, to elicit qualitative views about the full range of issues that could be considered as having an instrumental effect on trends in the wood furniture industry. In particular, interviewees were asked a series of questions that broadly addressed:

- the relative importance of factors affecting purchasing decisions along the value-added chain (access to raw materials, production efficiencies, supplier-buyer relationships, price, quality, marketing/promotion, distribution, and the enabling environment, respect for labour standards, environmental stewardship);
- how these factors are defined (e.g. what does quality really mean?);
- industry trends (environmental considerations, impact of China's accession to the WTO, etc.)

- perceived views about the relative comparative advantages of suppliers from the selected countries;
- strategies that Central Java producers should adopt to improve their competitive strength in the market.

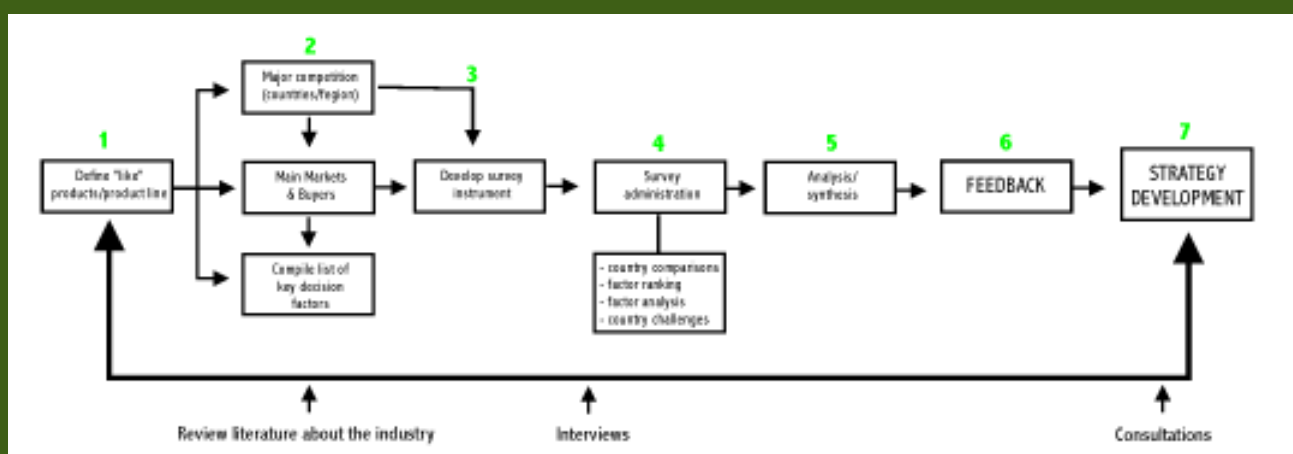
Interviews conducted by telephone and in-person at two international furniture trade shows were held with buyers involved in a range of activities – interior designers, buyers from large retail outlets, small boutique owners – and from across the developed world – Europe, the United States, Japan, Oceania, and the Middle East.

Stage 3: Beginning with Basics – Understanding the Challenge of Raw Materials

Information is not perfectly shared along the production value chain. Certainly in the case of the wood furniture sector, the activities become increasingly obscure as we explore the upstream and downstream factors in greater detail. Central Java businesses interviewed in the cluster analysis and international buyers from the global buyer survey, all identified access to good quality raw materials as a major challenge. However, it was difficult to piece together a picture that captured the constraints and power dynamics emanating from the upstream side of the value chain.

To fill in some of the informational gaps, the ILO department for sectoral activities, which includes forestry, sponsored a brief

Figure 2: Global Buyers Survey Methodology



Source: The author

¹² The Overview was conducted in collaboration with Pak Dwi R. Muhtaman, external consultant based in Bogor, Indonesia.

overview of the state of raw timber supply for the furniture industry in Central Java¹². The purpose of this exercise was to sift out the key myths and misconceptions surrounding the health of the island's teak plantations, the level of harvesting (legal and illegal), and the nature of the timber allocation system.

The information gathered was based on published information as well as discussions with forestry sector experts from around the province. In some ways, the study only scratched the surface. While the study was intended to verify the extent to which available resources meet current and predicted demand in the industry, there are considerable gaps in information about actual harvest rates especially as illegal logging is pervasive.



Stage 4: Stakeholder workshops

Social dialogue is an important pillar of the ILO approach. During the course of this two-year initiative, the ILO team worked to ensure stakeholders were kept informed about their research activities and indeed, that industry representatives influenced the objectives and activities of the ILO team.

Upon the completion of the research activities, the consolidated results were presented to stakeholders at two separate workshops, in Jepara and Semarang, respectively. Participants at the discussions included, among others, representatives from Government (Perhutani), business associations (ASMINDO, Jepara Excellence), representatives from large, medium and small enterprises, timber dealers, and local academic institutions (CEMSED, ATIKA, PIKA)¹³.

The discussion that ensued was highly energizing and constructive. Participants validated the results of the ILO studies, elaborated on the challenges facing the industry, and together, developed a concrete matrix of short-to-medium term steps that could be taken within the current structure of the industry. It was clear from the nature of discussions that participants:

- agreed with the classification and description of the clusters active in the timber furniture sector in Central Java.
- concurred with the characterization of pressures facing the industry – including those relating to the availability of raw materials (namely teak); increased competition from abroad; the existence of internal inefficiencies within firms and the sector more generally; the need

Table 2: 10 Practical uses to Policy Makers of the Value Chain Methodology

By disaggregating production activities, the value chain:

1. facilitates understanding about the **structure** of the industry and its backward and forward linkages;
2. helps identify **key stakeholders** and dynamics among them – including government, industry, workers, global buyers;
3. clarifies which **industry pressures** are controllable versus those that must be managed – and leverage points for action;
4. provides ideas about appropriate inter-bureau or **inter-agency consultations** (to span value chain);
5. imparts suggestions about an appropriate **organizational structure** within government agencies;
6. provides a useful **framework for discussion** among policy makers and stakeholders;
7. equips stakeholders with the **tools to engage government** officials at all levels;
8. highlights when **government policy** / regulation nurtures or discourages competitiveness;
9. informs **public resource allocation decisions** – to ensure scarce funding reaches those players/enterprises most vulnerable and sectors with the highest potential and paves the way for meaningful employment for future workers;
10. illuminates methods for **donor focus** to ensure coordination and complementarity among activities.

Source: The author

¹³ Unfortunately, due to the ban on non-essential UN travel to the region due to the SARS outbreak ILO officials were unable to attend. Derry Pantjadarma and CEMSED facilitated the workshops on the ILO's behalf.

for a socially responsible upgrading response; and the necessity for full buy-in of key players along the chain, if change is to be sufficient, sustainable, and positive.

- confirmed the effectiveness of the value-chain approach as a means to convey complex, multi-faceted relationships in an understandable form;
- were particularly struck by the results of the global buyers' survey, which portrayed a less than optimistic future for the Central Javanese timber furniture sector in terms of their ability to compete internationally. The use of radar diagrams, to contrast visually and colourfully, the performance of two countries on the six key decision-making factors, was a particularly useful means to illustrate the results of the study and how Indonesia wood furniture enterprises and products are perceived in comparison with their competitors.



Stage 5: Value Chain Workshop for Policy Makers

A further workshop was convened in Jakarta, to share the results of the ILO programme of activities in Central Java and to explore the opportunities for applying this methodology to other sectors in the country. National policy makers, academic partners, industry leaders, and selected donors were invited to participate. Presentations were made on the usefulness of the value chain analysis, how to conduct a value chain analysis and how to translate the results of the analysis into practical public policy.

Overall, many participants embraced the value chain approach as a powerful tool when seeking to understand the

linkages between players along the chain and to identify leverage points for change. In this regard, it is an effective tool for policy makers. But the relevance to government officials does not end there. By clearly and visibly articulating the roles and power of government agencies in the value chain, it is also an effective tool for industry players vis-à-vis policy makers. Government offices are more equipped to acknowledge the impact of their policies and actions and the importance of their participation in any collaborative effort to upgrade or restructure an industry. In the case of the wood furniture sector, bringing on board public sector players as agents for change is imperative.

The Indonesian Department of Industry and Trade has since worked to apply this approach in selected priority sectors in the Department.

Stage 6: Tools for Furniture Sector Upgrading

Based on the recommendations received from stakeholders at the workshops held in Jepara and Semarang, March 2003, the ILO agreed on a short-term plan of action with the following deliverables:

- a guidebook for SMEs: How to Get and Use Effectively, Good Quality Timber;
- a multi-media training kit for SMEs and Accompanying Guidebook, that underscores that change in the industry is inevitable and that sets out practical steps that SMEs can do to mitigate the impact of this change;
- a video, which visually captures the challenges to the industry and stakeholder and expert recommendations about a way forward.

In addition to distilling practical advice for SMEs, the effort has the added benefit of strengthening the links between the academic and business communities in the Jepara / Semarang / Jakarta regions. PIKA, the wood working training institute in Semarang, and ATIKA, the wood furniture training institute in Jepara, took the lead in the development of the training materials and calendar and in ensuring that the training material responded to the needs of SMEs in Jepara. The multi-media training kit, in turn, was led by a team in Jakarta, that collaborated closely with the local training institutes¹⁵.

¹⁵ The external team that supported the ILO in pulling together the training materials included: PIKA; ATIKA; Luck Rachat (multi-media kit); Derry Pantjadarma (ILO-Jakarta-based External Consultant); and Ann Ewasechko (ILO-Manila-based International External Consultant).

Methodological Approach and Lessons Learned

As a relatively new methodology in the ILO context, the value chain approach opened up a different way of thinking about the links between employment and competitiveness. In particular, it provided a framework that drew together various programming themes, such as job quality, improved market access, sector vitality, local economic development, skills development, entrepreneurial development, gender equality, and youth opportunities.

Now knowing the merit of the value chain as an analytical tool to help guide research activities, stakeholder consultations, and strategy development, and being aware of the need to have information gathered and assessed quickly for stakeholders who are eager to move forward, it is possible to work with a streamlined approach in future project activities. In this regard a first step could be to bring together a few key stakeholders, intimate with the sector, to sketch out the value chain – what are the activities; who are the key industry and institutional players; and where are the (perceived) pressure points on the industry.

Based on this, it would be possible to move directly to the global buyers' survey, in advance of the in-depth cluster analysis. In this way, it will be possible to seek the reactions of the Javanese producers to the perceptions of sampled global buyers (both

critical and complimentary). It would also be a useful means to underscore the message that if a sector is to be competitive, industry players need to start by thinking about the needs and concerns of the buyers.

At this point, a cluster analysis (which can be designed as more of a value chain analysis) could be launched. Interviews with the managerial staff of enterprises, as well as the views of workers would be integrated into the methodology.



As for the consultation processes, it is particularly useful to bring together players from all along the value chain to discuss the perceptions of the international buyers. If the global buyers' survey would precede the cluster survey, it would be possible to convene such a meeting to help the design of the survey and to ensure full participation of the full range of enterprises.

Table 3: Methodological Challenges of the Global Buyers Survey

The Global Buyers Survey turned out to be the single most revealing piece of work of the research program, particularly as a means to convey to enterprises how they and their products are perceived by the people whose views most impact on their business. Stakeholders were visibly struck by the visual representations that revealed how they ranked as compared to producers and products in other countries.

Notwithstanding the merits of this approach, as a research tool it is not without its challenges.

The most significant obstacle was identifying the names and contact information of global buyers who:

- were knowledgeable about the wood furniture products from Indonesia and its competitors;
- represented buyers from the major importing regions; and
- were willing to speak frankly about their impressions about the industry and the suppliers with whom they work.

The number and choice of buyers were, in the end, driven in part by practical considerations. The over twenty interviews that took place were secured by way of phone interviews and personal contacts made at two international trade shows. This latter approach proved to be by far the more effective, both in terms of time efficiency and quality of conversation.

The difficulties encountered during the process of identifying buyers had an impact on other aspects of the research initiative:

- it was difficult to pinpoint individual buyers who dealt specifically with Indonesian teak furniture or their directly substitutable products – wood furniture is in many ways a broad category;
- it would have been useful to have distinguished clearly between “international” and “global” buyers – while the former may buy from a country other than their own, global buyers are truly global in the sense that they purchase from a number of countries simultaneously.

The magnitude of the project would have been significantly larger if the interviews, in aggregate, represented a sizeable share of the total global purchases. Such a feat would have been possible if a larger sample was used and opportunities for interviews with additional major purchasers had been available.

Source: The author



Chapter 3:

The wood furniture sector in Central Java: Results of the ILO research agenda

OVERVIEW

The previous chapter sketched out the stages of the programme of activities undertaken by the ILO in order to help industry participants understand their sector better and the pressures they face. This section summarizes the results, including: (i) the structure of the sector; (ii) the key players; and (iii) the major challenges facing the industry.

In brief, the conclusions reveal an industry that is highly fragmented, with many furniture-producing enterprises competing for business, sandwiched between a virtual monopoly in the supply of teak timber, and a set of concentrated exporters and powerful international buyers. SMEs, particularly those in the informal economy, that are active in furniture production appear to be the most vulnerable, in terms of lost business opportunities, reduced access to good quality teak, and the threat of international competition. Many SMEs do not have direct relationships with international buyers, nor information about where they fit in the value chain. They are sub-contractors for

larger orders, often only supplying one product, or even one part of one product. Their power in the value chain is minimal.

It is no surprise, then, to see the mounting evidence that elements of the Central Java wood furniture sector are stagnating, with exports declining and foreign business owners leaving in search of more profitable opportunities elsewhere in Indonesia or in other countries. The decline in the availability of good quality teak, ebbing demand for Central Javanese timber furniture products, and systemic internal inefficiencies are pressures too powerful to ignore. Employment and job quality is at stake.

The workers in SMEs are the first to feel the impact of these pressures. With wages already low, there are concerns that businesses will try to compete in the global market by reducing labour costs further or moving completely to highly-mechanized, resource-intensive products. But this strategy is doomed to fail as well. With a sector so heavily dependent on the export market, dramatic disruptions in the labour market are anticipated with

Table 4: Key elements of the Central Java Timber Furniture Sector

- Globalization has been a source of great opportunities, but is increasingly threatening the status quo
- Teak timber is becoming increasingly scarce – SMEs claim to have less direct access to quality, affordable timber
- The production process is highly fragmented
- Clusters of furniture production have emerged
- The notion of the self-contained cluster is illusory – firms within both interact, and depend on, players outside these geographical borders
- Exporters and foreign buyers play a leading role in the development of the furniture industry – SMEs are often “disguised wage workers” rather than independent entrepreneurs
- The existence of international competition is very real
- The value chain is plagued with asymmetric information
- Workers in SMEs involved in furniture production are most vulnerable – many players can be involved in the production of one product
- Local workers cannot fall back on social security provided by employers but migrant workers have some
- Women and men employed in the sector are said to have few obvious employment alternatives, outside of moving back to agriculture or departing their districts altogether
- Direct government support has played a minor role in the development of the furniture export industry

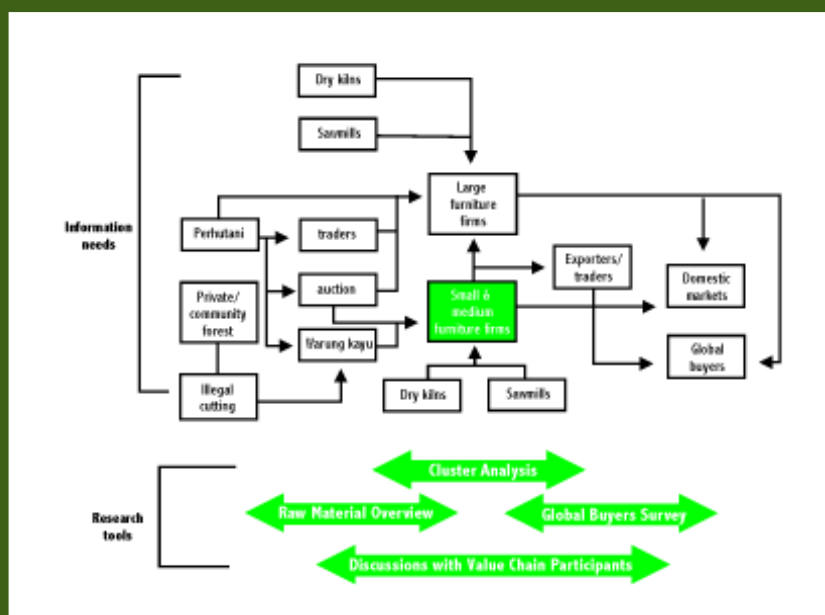
Source: The author

consequent implications for raising poverty levels and compelling the most vulnerable and low-paid workers, especially women and youth, to move out of the province, in search of work as domestic help or migrant labour.

The heart of the wood furniture sector in Indonesia is concentrated in Central Java. In many ways, this sector can be credited with cultivating a relatively prosperous provincial economy, breeding an outward-oriented and creative pool of

talent, and with providing livelihoods for men and women alike and hope for youth.

As Figure 3 portrays, the structure of the Central Java wood furniture sector is in many ways straightforward. SMEs supply to, and compete with, each other and with larger firms for access to raw materials and market opportunities. However, when the surface is scratched, the supply relationships and dynamics among firms along the value chain are considerably more complex.

Figure 3: Development of the Wood Furniture Value Chain

Source: The author

Link One: Raw Materials - Dwindling Teak Plantations

Sources of Furniture Timber:

Aside from the rich tradition of carving, another comparative advantage that has sustained a thriving wood furniture sector in Central Java has been the availability of affordable, beautiful, and durable teak timber. However, supplies of teak timber are declining rapidly.

According to industry and government officials, the bulk of timber used as an input to wood furniture products from Central Java is teak (*Jati*) – estimated at roughly 80%¹⁷. The remaining 20% includes mahogany, *waru*, and *sonokeling*¹⁸. The

island of Java has been the main teak source available to the local industry, where over one million hectares of teak plantations were cultivated under Dutch colonial rule. Unfortunately, there are substantiated claims that overuse of forests and inadequate management practices have in many cases depleted the resource base for the industry and undermined the sustainability of the wood-based industry. Already, the demand for teak cannot be met with current supplies.

The state-run agency tasked to manage this precious resource, along with the local development of the adjacent forest communities, is Perum Perhutani. This state-owned enterprise is in part financed from revenue generated from the very forestry resources it is mandated to protect. Teak represents around 50% of the Perhutani forest surface, while the other main species are pine (35%), agathis (6%) and mahogany (5%).

Teak logs remain the most profitable timber products grown in the Perhutani forests. This has led to dramatic increases in illegal logging during the last five years. The illegal market of stolen wood is said to represent a big source of income for the surrounding communities.

Concerned with the growing demand for teak logs, the Indonesian government set, in the 1980s, a ban on the exportation of logs. This decision was taken largely to develop downstream industries and to increase and maintain value-added in the province (the ban was subsequently lifted 1997-98). Other measures were also introduced to stimulate local production:



prices of logs were kept low, administrative procedures relating to the exportation of wood products were streamlined, and foreign investment regulations were relaxed. The measures effectively met their stated objectives of stimulating local economic growth, but had other unintended negative consequences.. There are recurrent claims that the log prices led to the inefficient use of wood raw material in industry. This, compounded by the alleged explosion of illegal logging, has resulted to an increase in demand which cannot be met by standing stock in the forest. Though not captured in the statistics, and notwithstanding the export ban, there are claims that a significant volume of teak timber still trickles out.

Timber Processing Activities

Teak harvesting begins with girdling¹⁹ two years before cutting. The standing girdled stock is then cut into pieces and transported to a timber yard. Most of the harvesting activities are done by manpower.

Once cut, Perhutani wood is marketed in several ways: (i) a portion is used by its own furniture and wood product factories; (ii) direct purchasing by furniture manufacturers with profit-sharing arrangements with Perhutani; (iii) district auctions; and (iv) through the local Perhutani timber yards (known as *warung kayu*).

The Future of the Perhutani Forests

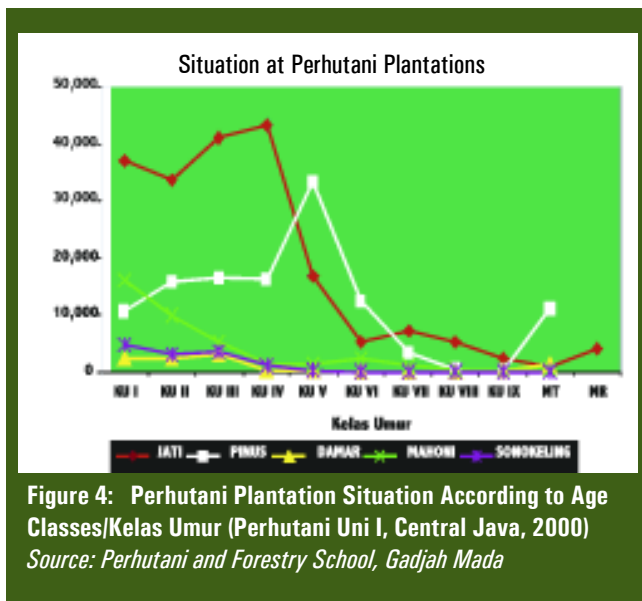
A number of factors paint a pessimistic picture of the state of the Perhutani teak plantations. First, the age class structure has become much younger, suggesting that over harvesting and/or forestry mismanagement has been the norm for quite some time. The cutting age is also becoming shorter than previously (figure 4 depicts the age class situation in Central Java). Normally, a mature teak is 60-80 years old.

Second, particularly during the 1997-1999 period, the extent of illegal logging increased dramatically in the forested area of Perhutani. It is estimated that more than 75% of Jepara's demand was met from illegal wood during 2001. In addition to price fluctuations, illegal logging lowers the overall quality of logs in the market – logs are cut prematurely and the girdling process is

¹⁷ Based on interviews during the data collection phase of the CEMSED research, *Value Chain Analysis in the Wood Furniture Sector*.

¹⁸ Based on interviews during the data collection phase of the CEMSED research, *Value Chain Analysis in the Wood Furniture Sector*.

¹⁹ Girdling is the process of carving a circle in the bark of the tree, around its circumference, which effectively cuts off the water supply thereby killing the tree. Trees harvested in this manner are better positioned to be fully dried.



ignored. In short, the overall productivity and value of the forest decreases.

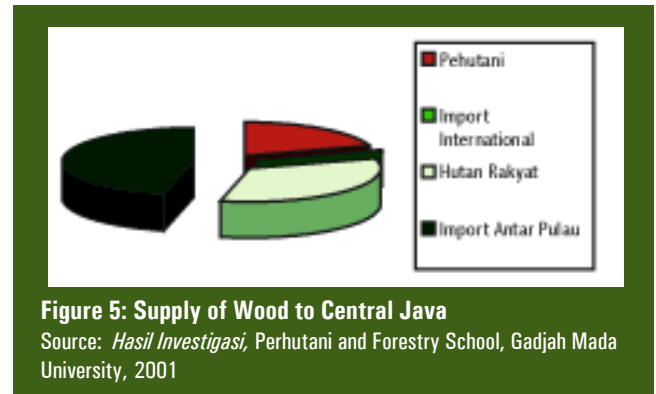
The state enterprise has taken some measures to reduce this theft. For example, a special forest police unit has been created to limit access to the plantations by the surrounding villagers. In addition, manned control posts on the roads from plantations to furniture production sites have been erected.

Meeting the Demand for Timber in Central Java

The demand for wood from the Central Java wood furniture industry is estimated at 1.8 million m³ per year²⁰. Of this, Perhutani supplies in the range of 300,000 m³ of teak (or roughly half of its 600,000 m³ annual harvest). The remaining comes from a few different sources:

- (i) illegal logging from the Perhutani plantations;
- (ii) community/private forests;
- (iii) Indonesian outer islands (the main source of non-teak wood – primarily from Sumatra and Kalimantan); and
- (iv) imports from other countries, such as Burma and Thailand²¹;

PT Perhutani, and regional and local institutions have set incentives to encourage the farmers to plant teak trees in forested areas. For example, farmers have planted trees in the area of Gunung Kidul whose harvesting is controlled by the Sultan of Yogyakarta (Central Java). A few trees can also be found in the



field or the garden of farmers in other places of Java.

Community forests also cover the area of West Java (Sumedang, Sukabumi and Banten), Central Java (Purworejo, Batang, Banjarnegara, Magelang and Wonosobo) and East Java (Madiun, Kediri and Malang). The volume of all timber supplied to Semarang, for example, from community forest reaches 1,427.59 m³ per month for local market (round wood and sawn timber) and 2,575.30 m³ per month for export (wood based products).

The timber from these forests goes directly from the middlemen/brokers who collect the wood from each village/area. Wood prices from community forests is much lower than from PP (almost one-third of Perhutani's price) and the buying process is less complicated.

For the moment, this private production: generates medium or low quality timber; creates uncertainty as to the sustainability of supply; leads to a fragmented area of plantation; and confuses the framework of local marketing institutions. Consequently, developing the community forestry sector as a major source of teak has ways to go, though there are some government efforts underway to nurture this supply possibility. In particular, the sector needs more investment in building appropriate institutional as well as a silviculture system particularly for teak wood.

The Jepara industry and other furniture centres in Central Java purchase some teak supply from other provinces in Indonesia, such as from Muna, Sulawesi, Nusa Tenggara Barat and Lampung. Similar to the community forests, the quality is usually lower than the Java teak and the price is less expensive. Consequently, it is used as an input for products that do not require high quality materials.

²⁰ CEMSED interview with ASMINDO Central Java (2002)

²¹ Figure 5 illustrates the total supply of wood to Central Java.

²² The remaining eighteen clusters are comprised of predominantly informal firms, without legal ownership.

Other sources of supply come from Burma and Thailand. Quality and prices of imported teak are similar to those from Java teak.

Perhutani and Decentralization

In 1998, the Indonesian Parliament issued a decree (Ketetapan MPR No. XV/MPR/1998) providing a mandate to the elected Indonesian President to implement wide regional autonomy. The new government administration developed the Local Government Law (UU No. 22 Th 1999 tentang Pemerintahan Daerah) and associated regulation (PP No. 25 Th 2000 tentang Kewenangan Pemerintah Pusat dan Pemerintah Propinsi sebagai Daerah Otonom) to realize regional autonomy. The legal framework for decentralization effectively took place in 2001. In its essence, Indonesia stands on the verge of a major decentralization, but not necessarily in the timber sector. While local governments are pressing for greater autonomy in natural resources management, PT Perhutani has resisted pressures to devolve forest management to local government units.

That said, there are many ways that decentralization has affected the Central Java manufacturing sector – including as regards FDI, transportation, taxes, and more generally, local economic development.

Link Two: Furniture Production Activities: The Clusters of Central Java

The Importance of Clusters

One of the main characteristics of the furniture sector in Central Java is the predominance of clusters of production. Of the thirty-five districts in Central Java, thirty-two are home to a furniture cluster. Almost all of these clusters carry out activities from wood processing, to rendering the finished product ready for market. For the purposes of the ILO comparative analysis of clusters in the Central Java province, only fourteen were considered²². These include: Blora; Boyolali; Jepara; Kendal; Klaten; Pemalang; Purwodadi; Purwoejo; Rembang; Salatiga; Semarang; Solo; Sukoharjo and Tegal.

The geographical distribution of clusters does not come as a surprise - most are located

near the source of raw materials (that is, the Perhutani teak plantations) and have access to roads and ports.

The process of furniture production is primarily a manual one. In other words, it is highly dependent on labour-production. Except in the case of high volume, mass-produced garden furniture, the process relies on simple technology and artisanal skills.

The emergence of furniture clusters can in part be explained by the export market. From the production perspective, entry barriers to the industry are very low and capital costs are minimal. However, barriers faced by production firms that wish to enter the export market appear significantly higher – the investments are steeper, the capabilities of management are greater, and direct linkages with international buyers are not easily established, particularly as a first time exporter. As a result, SMEs tend to play a more supportive role in the production process - through the subcontracting mechanism, as a group or cluster, they together fill contract orders.

Cluster Classification

The difference in the sophistication of clusters is striking. As a result of a combination of history, location, and resource endowment, the furniture clusters have developed along distinguishable lines.

Jepara and Klaten are the two clusters in this province with the richest, most deeply rooted history in the furniture-producing sector. Both clusters emerged before the 17th century, to serve the needs of the royal families for wood crafted furnishings – the Brawijaya kingdom in Jepara and the Pajang sultanate in Klaten.



Table 5: Classification of Central Java Wood Furniture Clusters

Stratum 2: Emerging clusters that emerged from a climate of strong economic development, good infrastructure, and availability of resources. Available facilities are optimally utilized. Example: Blora, Pemalang, Purwodadi, and Purworejo clusters	Stratum 3: Under-developed clusters that grew around existing local business facilities and infrastructure, leading to more transactions-based operations. Examples: Semarang, Surakarta, Kendal, and Tegal, Solo clusters
Stratum 4: Latent clusters that grew primarily as a result of their proximity to raw materials. Businesses tend to run relatively closed, inward-looking shops. Examples: Cilacap, Banyumas, Sragen clusters	Stratum 1: Mature clusters whose spirit is grounded in centuries of tradition, but who have adapted to, and capitalized on, global market demand. Examples: Klaten and Jepara clusters

Note: clusters classified in Stratum 4 were not considered further in the ILO-sponsored cluster analysis
 Using a Likert Scale, classifications were made on the basis of number of workers, profit, managerial and technological abilities, access to raw materials, and market network.

Source: The author

Eventually, wood crafting activities become daily activities for many. Jepara's workers have a special skill in crafting flowers while Klaten craftsmen's niche is the crafting of fruits and leafs.

They are still, today, considered the most developed clusters in the region. The carving skills, passed along from generation to generation, have culminated in distinct designs and regional brands. These clusters encompass networks of big and small firms that are linked to several tiers of subcontractors and home workers, leading to a sophisticated division of labour and tasks. Moreover, they are characterized by substantial participation of foreign firms and buyers and have access to the worldwide furniture markets. However, the challenges faced by the industry – waning buyer interest and scarce availability of good timber – have been felt particularly strong in Jepara.

Blora, Rembang, Grobogan, Kendal, Batang, Pemalang, Tegal, Banyumas and Cilacap are located in forest areas and emerged solely because of this proximity. Until recently, most of their furniture has served the domestic markets, in the various provinces in Java and the main cities of Surabaya. Increasingly, large enterprises in some of these clusters are becoming full partners in international value chains and they also include joint ventures or foreign-owned businesses. The introduction of expensive, multi-purpose power-driven equipment has stimulated the establishment of (often informal) associations and co-operatives to share the costs and risks of new and expensive technology. These clusters are frequently linked to the main furniture clusters in Jepara and Klaten by imitating their design, hiring their craftsmen for specific tasks that cannot be executed well by their own workers, and welcoming both domestic and foreign businesses that are leaving Jepara in search of new business opportunities.

The Semarang cluster, located in the capital city of Central Java province, has been shaped more by the existence of business facilities and distribution infrastructure (including its harbour), than any innate skills. In this city, the main actors are exporters or traders, and those involved in the final stages of furniture processing. Surakarta, the second largest city in Central Java, is

Table 6: Number of Business Units, Employees, and Production Value of Furniture Industry in Jepara and Klaten from 1996 to 2000

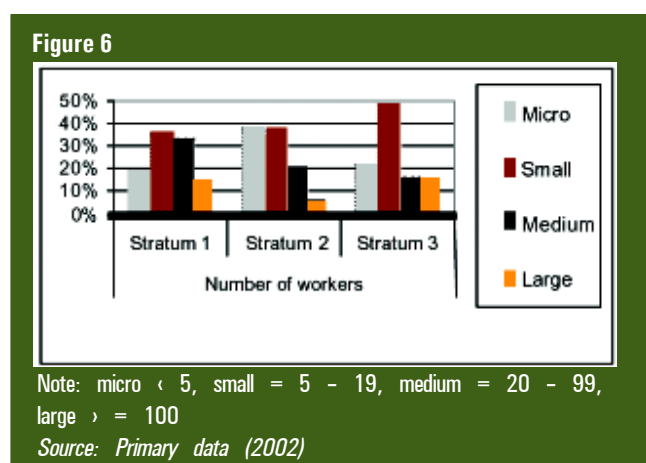
	Number of business units	Number of workers	Production value (Rp.000)	Growth(%)		
				Number of business units	Number of workers	Production value (Rp.000)
Jepara Furniture Cluster						
1996	2.347	35.234	321.104.110			
1997	2.435	38.264	532.720.000	3,75	8,60	65,90
1998	3.001	43.916	522.720.000	23,24	14,77	-1,88
1999	3.861	45.780	543.735.000	28,66	4,24	4,02
2000	3.400	57.000	589.735.000	-11,94	24,51	8,46
Average				11	13	19
Klaten Furniture Cluster						
1997	1.278	3.315	24.540.260			
1998	1.333	3.565	40.720.000	4,30	7,54	65,93
1999	1.410	3.688	42.151.458	5,78	3,39	3,52
2000	2.020	9.161	69.177.417	43,26	148,53	64,12
Average				18	53	45

Source: The Office of Industry, Trade, and Cooperatives, Jepara and Klaten (2000)

Data include formal and informal small and medium enterprises, including home-workers. The local governments in Jepara and Klaten, and the local office for The Office of Industry, Trade, and Cooperatives in Jepara collected the data. Compared to these, the figures collected by CEMSED dramatically underestimate the numbers, largely because CEMSED figures do not include home-workers.

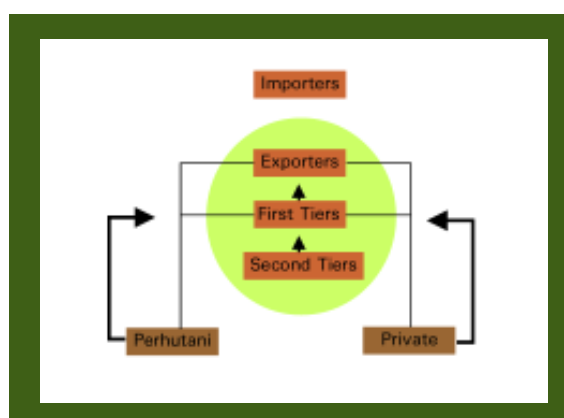
without a harbour but also serves as an export or trading base, owing to its historical significance and influx of tourists.

In addition to historical factors and geographical location, firms in the three strata considered in this analysis, also exhibit other striking differences. Firms located in the mature clusters (or Strata 1), are primarily small and medium in size, relatively large compared to businesses in the emerging clusters (or Strata 2), where roughly 35% fall in the micro-enterprise category. The proportion of large enterprises in the Strata 3 category is roughly equivalent to that in the Strata 1 category, owing in large part to the existence of large traders and exporters who are located in the port cities, such as Semarang²³.



The Furniture Processing Production Process

While the key target group of the ILO's programme of activities can be characterized generally as the workers and managers in SMEs involved in the wood furniture production activity, this is by no means a homogeneous group of individuals. The group is composed of enterprises that may just produce parts of furniture, or that may engage in a small portion of the actual production, but who may also be traders or exporters. Some may specialize in certain



styles, such as indoor or outdoor, colonial, traditional, modern, or Chinese or on the basis of raw materials – dealing only with teak or mahogany or pine. Others may define themselves on the basis of production activity – such as carpentry, carving, finishing, packaging, or creative design. Some engage in active business development, whereas others rely solely on subcontracts from exporters or “first tier” producers. These enterprises depend on others for securing new contracts, referred to here as “second tier” producers, and tend to be the most isolated, with few other direct business links.

The Timber Furniture Workforce

In general the most integrated clusters are located in the districts of Jepara and Klaten. The reach of enterprises in these districts extends across the range of skills and activities, deep down into second tier subcontracting, and far off into distribution channels of the global markets they serve. Yet while the cluster as a whole is well integrated, there is considerable specialization among firms, particularly in the types of furniture products made, and the skills of their labour.

Unskilled workers, often in the role of assistant carpenter, are available in all clusters. As there is ample supply of local labour, no cluster, with the exception of Jepara, imports unskilled workers from surrounding villages.

Carpenters, who are viewed as middle-level skilled workers and who are engaged in wood processing and finishing, are also present in every cluster and in most processing firms, whether

they work in export-oriented or first or second tier subcontracting firms. This group constitutes the largest skill-set employed in this sector²⁴. Just a few in this group, are reported to work from home – and only in Jepara and Klaten (Stratum 1) and Tegal (Stratum 2).

Most of the carving work is conducted by workers in first and second tier subcontracting firms in Jepara, Klaten, and a few from Sragen.

²³ When rating the size of businesses based on the value of sales, the great majority of firms in all strata, fall in the micro-enterprise category

²⁴ Of the 3,369 employees working in the 94 enterprises in which interviews were conducted: 159 were managers, 183 office staff, 1083 carpenters, 1,429 finishers, 289 woodcarvers, and 226 “others”.



~ Chipping Away at Traditions is Not Easy...The Story of One Carver and His Art ~

CV Vina Arya Furniture, of Semarang, Central Java, was invited to attend an international furniture exhibition in Vancouver, Canada. As part of the Organizer's vision to showcase the wealth of creativity this sector cultivates, Vina Arya Executive Director, Ir. Arwim, was asked to invite one of his master carvers from a small village to attend to and demonstrate his expertise. The entrepreneur jumped on this opportunity to present to the world, the art of Javanese wood carving.

A natural at home, under the brilliance of florescent lighting, donning a brand new tailored suit, the master was paralyzed. "It's the artistic temperament", concluded Pak Arwin. "In the comfort of his dimly-lit workshop, he wears very little.

His personality changed when he put on that suit".

"We buy our carvers a table and train them how to work with it", added YakubFirdaus, ASMINDO (Central Java), Chair. "Then we return an hour later and they are sitting on it. This is how deeply engrained the practices in the industry are".

Indeed, in other clusters such as in Semarang, enterprises will draw on the unique skills of Jepara, whose carvers are known worldwide for their abilities. These carvers rely on techniques passed from generation to generation, work that would be impossible to accomplish by machinery. But these time-tested techniques also make change difficult – in terms of design and in terms of working habits.

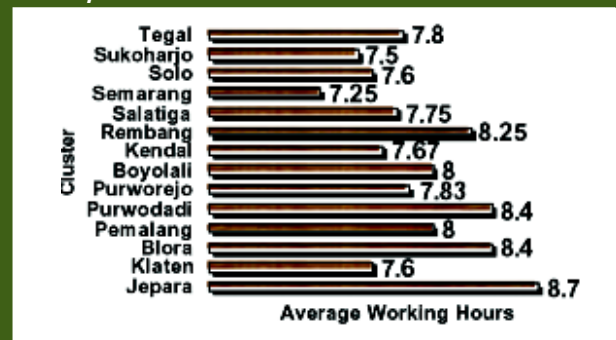
The relationship between management and workers of furniture producing enterprises tends to be informal, with the specific terms of work being flexible. Very few workers have any form of job contract, and these tend to be employed by a handful of larger firms in the advanced clusters. However, even in these cases, the contracts do not apply to all workers and the firms continue to make use of casual workers, paid on a piece-rate basis.

The average workday (before overtime) tends to be in the range of 7.25 and 8.7 hours per day. Surprisingly, the most advanced cluster, Jepara, has the longest work day. Overtime tends to occur most often in Stratum 2, but the differences among strata are marginal.

The level of wages varies both across cluster and job classification. Workers in Semarang (Stratum 2) receive the highest levels of compensation based on job classification, with the exception of district carvers, whose wages are below their counterparts in Jepara. For example, carpenters in Semarang earn on average Rp. 35,000 per day (ranging between Rp. 25,000 and Rp. 40,000), well above carpenters in Jepara (Rp. 27,150) and in the lowest paying clusters of Boyolali and Salatiga (Rp. 17,000 – Rp. 17,500).

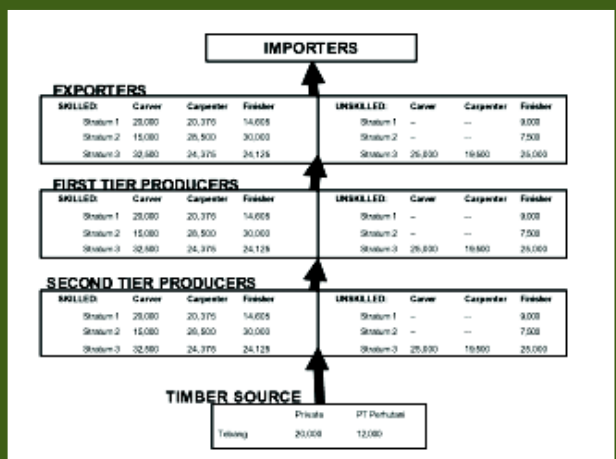
Of all occupations, the woodcarver is the highest revered, a worth reflected in his/her wages. Though wages vary from a low of Rp. 17,000, a Jepara wood artisan, depending on his

Figure 7: Working Hours Average on Wood Furniture Industry in Central Java



Source: Primary data (2002)

Figure 8: Value Chain Map: Daily Wages for Skills Levels (Rp)



Source: Primary data (2002)



experience, can make up to Rp. 38,750 daily.

The daily rate offered to finishers tends to be the lowest among the skilled workers. This labour group also tends to have the highest percentage of women as compared to other occupational groups. When the wages of women and men were compared in other job classifications, the former also tended to earn considerably less than their male colleagues. To illustrate, a female carpenter in Semarang takes home between Rp. 5,000 and Rp. 10,000 less than the male equivalent; a female woodcarver in Jepara makes an average of Rp. 14,000 to Rp. 29,000 less than the average

male carver.

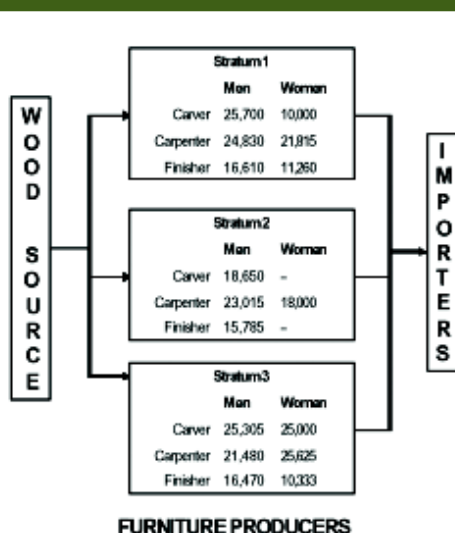
Most of the workers in dry kilns, saw mills assembling and finishing are paid on a piece-rate basis. Others receive low basic wages and additional payments depend on performance and the number of orders received.

Generally speaking, benefits and income security systems do not differ significantly among furniture clusters. In the view of several enterprise owners interviews, local workers are less in need of special benefit packages, as they can more easily rely on the social safety nets of their extended families. However, managers in mature clusters tend to take greater responsibility in providing security to their workers who migrate from other districts in search of work, in case of illness or disability.

Differences between firms and clusters were also observed regarding occupational health and safety²⁵. The survey revealed that, overall, the entire furniture processing sector in Central Java would need to undergo substantial improvements before work conditions could be considered above adequate. The workshops and factories are, by their very nature, dusty and often noisy. Many employers appear to have instituted measures that would reduce the hazard of such pollution. For example, face masks of some sort are provided to many workers. Toxin absorption facilities are in place in some facilities, and in others, the work is done outside to minimize inhalation. Whether or not employers have done their best to enforce these standards, many employees are simply unwilling for example, to wear the protective masks that are provided, as they are too uncomfortable or they claim this disrupts conversations with their fellow workers.

As for training and human resources development, only 13% of enterprises surveyed combine outside training with in-house skills development. Again, it is mostly firms in Strata One and Two that invest in such upgrading. Among the in-house or business development services sought are: technical skills training (such as finishing, construction, production techniques, carving, and wood quality control); managerial training (accounting, business management, financial management, administration) and complementary skills (computer, export/import processes, sales, and contract management). Sources of external training programs include government agencies, buyers, entrepreneur associations

Figure 9: Value Chain Map: Daily Wages for Skills Level (Rp)



Source: Primary Data (2002)

²⁵ According to workers and cursory visual inspections of interviewers, conditions conducive to worker health and safety were best in Boyoali, Semarang, Solo, Tegal and Jepara and are worst in Pemalang and Sukoharjo.



(ASMINDO, HIPMI, Kadin), and other training service institutes.

Most furniture-producing firms in Central Java appear to draw distinct lines between management and worker responsibilities. Of the quarter of those firms surveyed who claimed to involve workers in the enterprise management, such activities would focus on ordering and receiving, dealing with production and operational problems, quality management, complaint handling, raw material maximization, and job oversight.

Inter-Cluster Relationships – the importance of a value chain approach

During the manufacturing process per se it is possible to minimize interaction between the clusters. Clusters can function as self-contained units, aside from the need for the skills of wood carvers in, say, Jepara, by firm in another district or timber.

The usefulness of assessing an industry from a value chain perspective is enhanced in situations where it is

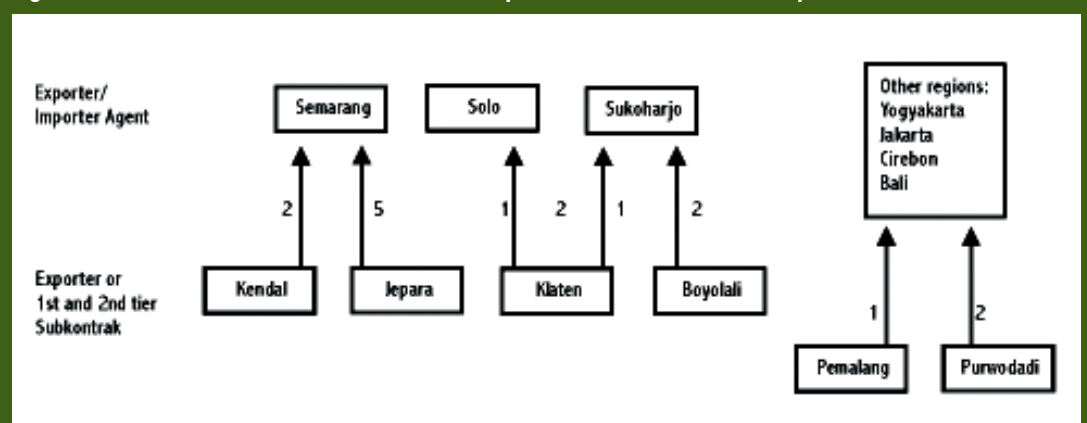
important to have a view of the external forces affecting these micro, small and medium producers. Figure 10 depicts the active nature of product flows between clusters. Aside from the physical flows or semi-finished furniture products, there is also a virtual flow of value-added between clusters. New and popular design ideas quickly make their way around the province. Indeed, the province has developed quite a reputation for copying.

At other times, product flows may be tightly controlled. For example, as a means to control quality, protect unique designs, or even to increase the value-added for the firm, the exporters and traders may guard the activities of assembly, finishing and packing to themselves. In fact, many of the so-called first and second tier producers, may not even know what the final product will look like, let be, and most will certainly not have met the buyer or even know where the buyer is from. This final processor may operate within the cluster or in a firm closer to port. The products may remain in the province, be exported to other islands, or may find their way into the home of a European or American consumer.

Link Three: Wood Furniture Markets

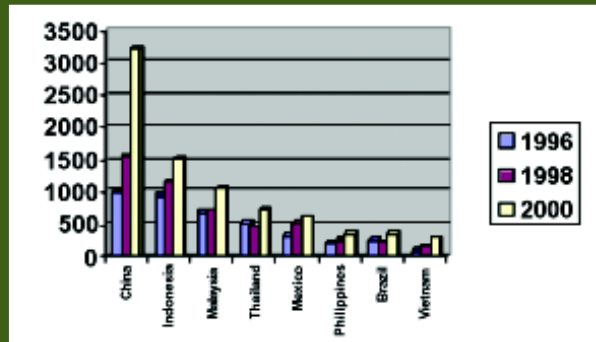
What began as a sector producing solely for the domestic market, has evolved into a business that is highly dependent on international markets for their survival and growth. It is estimated that 70% of all the wood furniture produced in Central Java is destined for global markets. Demand for teak products originated mainly from high-income consumers overseas but more recently, demand has also come from middle-income consumers.

Figure 10: Product Flows Between Clusters for Export Market in Subcontract System



Indonesian wood furniture products face increasing competition from around the world. Though in 2000, the country ranked second to China in total market share, that position is under pressure from other emerging wood furniture producers. (see Figure 11).

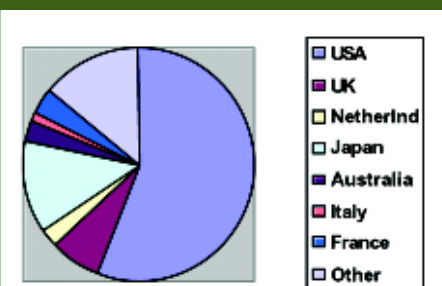
Figure 11: OECD imports of Wood Furniture - Top 8 DMEC Exporters



The markets for which they compete are concentrated in the OECD countries (see Figure 11), with the USA leading in terms of wood furniture imports. Of the factors discussed during the course of the interviews of the global buyers survey, the ability of suppliers

to deliver quality products at a reasonable price seemed to be given the greatest weight. The willingness of suppliers

Figure 12: OECD Importers of Wood Furniture



to develop relationships, offer innovative designs, and produce efficiently, fell within a second tier of priorities. In the third tier, but still relevant to the decision making process, consisted of on-time delivery, effective marketing, environmental stewardship, and high labour standards.

The nature of the relationships between international buyers and Central Java suppliers is varied, although the wood furniture sector is primarily a buyer-driven supply chain. At the most integrated level, there is a handful of exporters who have their

own production units in Central Java – registered as either foreign-owned or joint ventures. Most of the production activities of these companies are limited to designing, marketing and finishing the products that are manufactured by their networks of subcontractors, for quality control purposes. In these cases, the foreign firm generally retains control over decisions relating to marketing, design, and quality control and the local partner takes the lead in overseeing production and managing employees. In more numerous cases, certain international wholesalers maintain representational offices, again to oversee the quality of shipments.

Still more buyers of wood furniture purchase directly from enterprises within Central Java, with whom they have developed long-standing purchasing relationships. In these cases, the importer may work to equip their suppliers with the necessary management skills to ensure quality, minimize costs, and in some cases, develop innovative design capabilities. At the other end of the spectrum, are the buyers who make occasional visits to furniture production clusters and attend international trade shows, as a means to meet purchasing requirements. In these cases, the buyers may base the order on designs developed locally, with some minor modifications.

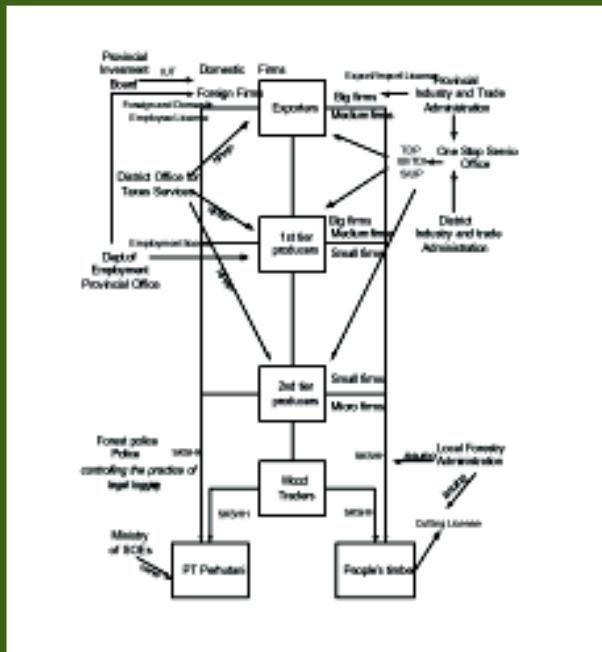
The Institutional Framework

The first part of this chapter has described the structure of the wood furniture sector in Central Java. This second section below summarizes the institutional framework, which either governs and supports the industry.

Government

A plethora of government agencies at the national, regional, and local level has a strong impact on the competitiveness and future viability of the industry. In general, they play three main roles: (i) as administrator; (ii) as controller; and (iii) as stimulator of economic activity.

Figure 13 depicts government agencies mostly in terms of their administrative role, especially in licensing. At the forestry end of the value chain, the Department of Forestry issues licenses to cut timber and issues a letter that proves that timber is cut legally. Moving along the chain, the Industry and Trade Office issues a variety of registration licenses to businesses. The Ministry of Employment is tasked with responsibilities relating to labour,

Figure 13: The influences of Government Agencies in the Furniture Sector Value Chain

Source: The author

while the Provincial Investment Body issues licenses for firms to operate as a permanent business. Another license is issued to prove that the business will not cause negative impact to its surrounding/environment, in social or environmental terms. Those licenses are important for firms to have access to formal institutions, such as banks, Perhutani, export markets, and even to become member of the industry association ASMINDO. Industry efforts, invigorated by the March ILO Stakeholder meeting, have encouraged the creation of One Stop Service (OSS) offices in some districts that facilitate the licensing process.

Government institutions also play a control or enforcement function to ensure businesses are fulfilling their legal obligations.

Besides those administrative functions, the government agencies work to facilitate and support the growth of local business and to enhance good management skills of business entities. Among the offerings are trade exhibitions and investment incentives to prospective foreign investors. Many agencies also seek to strengthen linkages between large and small firms while others provide technological support or offer soft loan credit schemes to SMEs. The Department of Forestry and Perhutani of course play a special role in forest management and allocation of

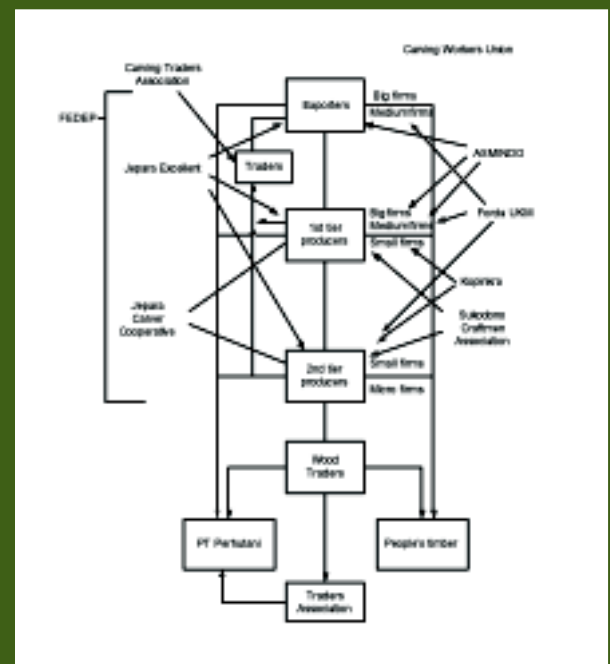
felled timber.

Associations

Associations also have a strong influence on the well-being of the sector. From the wood trader associations at one end of the value chain to the village-level associations and district groupings such as FEDEP, ASMINDO and Jepara Excellence at the other end, these associations provide various support activities from advocacy; facilitating access to capital and timber resources; mobilizing support for larger-scale community investments (such as dry kilns); information dissemination; and in some cases, offering a place for product display and joint marketing initiatives.

The training institutes in Central Java province also have an important role to play in enriching the skills of the labour force. PIKA, ATIKA, SMIK, and the new FEDEP School of Carving in Jepara, are three such institutes who occupy niche specialities.

There are also worker associations, including the Union of Carving Workers (Serikat Pekerja Sektor (SPS) Ukir). In addition, the former SPSI has been reorganized into a federation of (industrial unions), one of which is the building and wood union, which has participated in the activities of the International Federation of Building and Wood Workers (IFBWW).²⁶ Currently,

Figure 14: The influences of Multiple Associations in the Furniture Sector Value Chain

Source: The author

²⁶ A 1997 study by Rupidara concluded that SPSI's performance in representing workers is weak due to external factors. National and local newspapers also consider that SPSI's influence may be limited due in part to a lack of grass-root support.



Challenges for the Industry: Assessing the competition

The previous chapter described the value chain for the timber furniture sector in Central Java – the location of production activities, the flow of products, and the distribution of power – based on the ILO-sponsored research. This section focuses on the challenges facing the industry, as perceived by the wood processing firms and the international buyers whose views ultimately determine the level of success of the industry. These challenges are illustrated in Figure 13 and include: (i) the declining availability of good quality timber; (ii) internal management and technological inefficiencies; and (iii) increased global competition.

Sourcing Raw Materials

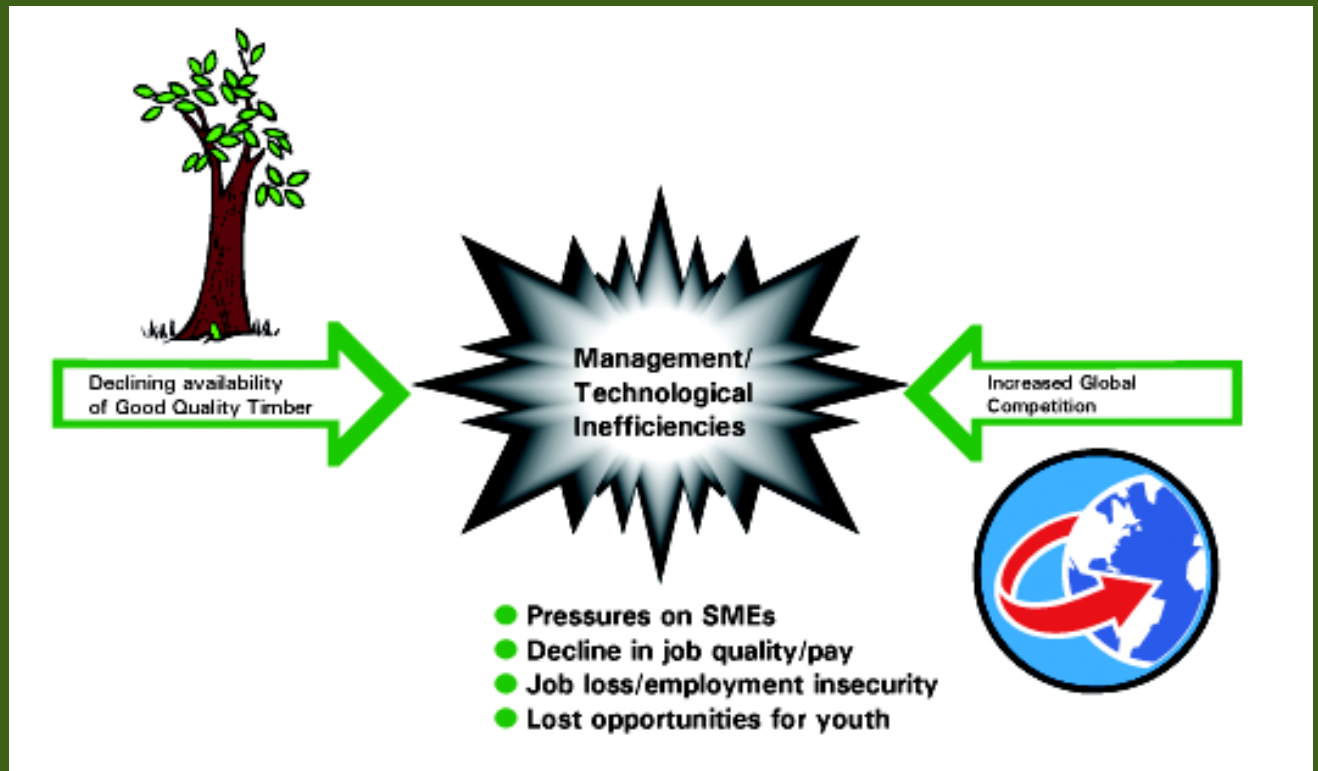
The pressures faced by SMEs in the sourcing of good quality timber are threefold.

The first and most daunting pressure arises from the declining stock of good quality teak. Even if the recently announced reductions in harvesting rates have the desired effect and illegal logging is put to an end, all furniture processing firms

– large and small – will be affected in the coming years. As the timber stock that is harvested is younger and younger, the quality of the wood will decrease, not least that it becomes too difficult to dry the wood properly and more likely to warp. Prices will increase for logs that do come on the market.

SMEs in the furniture production business are relatively powerless to control the over-harvesting that is devastating Central Java's most precious resource. Concerted effort must be exerted by government agencies, if this depletion of this important natural resource is to be halted. The measures that have been taken to protect the forests from illegal logging are rumoured to be ineffectual. The small police force that currently guards the forests cannot be expected to prevent all thefts from occurring – the land mass is simply too large as seen in the photo below. Efforts to stimulate community-owned and private teak plantings need to be explored further. Economic incentives to protect these trees until full maturation occurs (that is, between 60 and 80 years), are currently not apparent.

Figure 15: Challenges to the Wood Furniture Sector in Central Java



Source: The author

The second pressure that has a more targeted impact on SMEs is the distribution and marketing of logs. SMEs are frustrated with their inability to secure what they believe is their fair share of the good quality teak.

Perhutani's forests offer the highest quality teak. However, not all quality timber finds its way to the market. Roughly 7% of teak fellings find their way into the mechanized garden furniture plants owned and operated by Perhutani. This percentage is expected to increase beginning next year as, according to Perhutani staff, there are no plans to reduce the volume of timber that flows to the Perhutani plants, notwithstanding that the annual harvesting rate announced by Perhutani has been cut. A pre-determined portion of logs is also delivered to larger furniture processing plants with which Perhutani has a close relationship.

The bulk of the remaining logs are sent to one of the local

auction houses run by the Ministry of Finance. These logs are purchased either by intermediary traders or production houses

directly, who have the manpower, storage and infrastructure to eliminate the middlemen. Some of this wood ends up being sold to the roadside timber merchants, a photo of which is included.

Finally, according to many SMEs, the lower quality timber goes to the local Perhutani timber yards – the *warung kayu* – which have been set up to serve as the primary source of timber for smaller businesses. This supply, according to officials, is grossly inefficient and of poor quality. PT Perhutani, along with the Ministry of Forestry, clearly has the greatest influence on the allocation of timber.

The third input factor that complicates the viability of Indonesian furniture producers is the growing movement in many



international markets for FSC certified wood. As a result of findings that pointed to corruption among certain officials, the Smart Wood certification for the three forests that had received this stamp of approval was removed. Foreign buyers, driven by consumers in their own country, are becoming increasingly wary about purchasing Indonesian teak products. Many large, European retail outlets have ceased importing teak products from Indonesia altogether. Again, the furniture producers cannot rectify this situation alone.

Indonesian furniture producers are at a critical point. They understand that international buyers have strong praise for the beauty of Indonesian teak, which is seen by most to be in a category of its own. However, at least according to many international buyers, there are opportunities to realign production to make more use of alternative timbers. Indeed, Indonesian wood furniture producers are not seen to be adventurous when it comes to experimenting with alternative materials. On the other hand, Philippine producers, who can no longer rely on a plentiful supply of native timber, are said to be having considerable success in their efforts to rely on new materials, including other wood, metal, resin and polyethylene and using modern and innovative furniture designs.

Management / Technological Inefficiencies

Quality

“*Consistency, consistency, consistency*”. The importance of consistency in workmanship was the key issue raised by the global buyer interviewees²⁷. Suppliers from Jepara (and Indonesia more broadly) must work hard to regain the confidence of global buyers that the quality of furniture items they showcase at the trade shows or on their factory floors will be equivalent to that received in the container a few months later.

According to buyers, inconsistent quality has resulted from several factors. First, management has not introduced adequate quality control systems into the production processes, unlike in other



countries, where quality control mechanisms have been implemented at the firm level. This problem could be easily addressed through productivity-enhancing interventions, such as improving the shop lay-out, making minor improvements to work conditions, etc. As buyers noted, poor working conditions can be indicative of much more systemic problems in a factory or workshop.

Second, buyers suggested that industry associations need to play a stronger role in developing standards and monitoring quality control in the sector as a whole. Those firms that do manage quality well are affected by the poor performance of other firms. As such, it is in the best interests of all in the industry to set quality as a premium issue, using peer pressure and the demonstration effect of good quality products to raise the standards of all.

In this context, enterprises need to ensure proper cutting and drying of their timber. The availability of the dry kiln facilities varies between clusters and villages within clusters. But even when there are kilns with unused capacity available, the timeframes that some furniture processors face are so tight that they often cut short the drying process in order to meet the delivery date.

Indeed, the problem of cracking was a recurring theme among buyers interviewed. As articulated by one global buyer, “Indonesian teak products will crack in five years – guaranteed”. Producers need to become more aware that the reputation of the products is poor in this regard and that they need to take

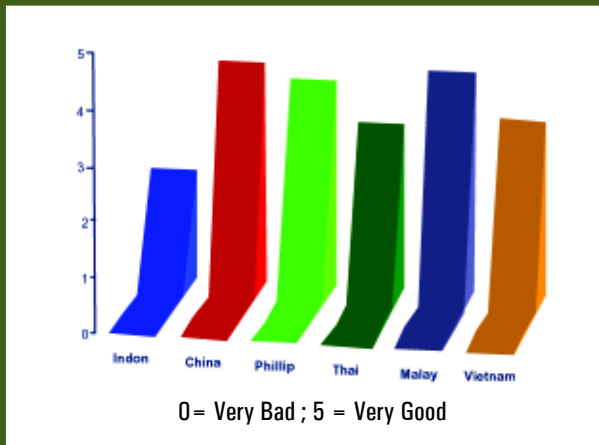
steps to ensure that proper drying has taken place. Given the reputation of Indonesian teak furniture to crack, the entire sub-sector needs to work together to raise the quality of processing, in order to effectively chip away at the expectation that, a few years later, the teak furniture will crack.

Third, the low level of mechanization of Indonesian factories as compared with other factors in, for example, China, is affecting the ability of manufacturers to produce products that are standard and uniform. Increased capital

investments are seen by some buyers as imperative.

²⁷ It should be noted the majority of buyers interviewed during the Global Buyers survey, were indeed global – purchasers of products from a range of countries. As such, these buyers tend to be more able to switch to producers in other regions or countries. The term international or foreign buyers would include both global buyers and those who outsource primarily to a few clusters in one country only. For the purposes of this paper, global, international, and foreign buyer are used inter-changeably.

Figure 16: What Buyers are Saying about Quality



Price

Based on discussions with buyers, price surfaces as the second most significant factor driving buyers' decisions – a factor highly intertwined with the question of quality. Every buyer interviewed focused on the notable differences in prices offered by suppliers throughout the region (see Figure 17). The reasons for price differentials were explained by differences in a few variables: (i) access to affordable raw materials; (ii) labour costs; (iii) labour productivity; (iv) production processes; and (v) supplier mark-up.

Price comparisons are particularly important in the purchasing decisions for low-end wood furniture products. In this regard, China seems to offer the best value, by far. High labour productivity, low labour costs, dedicated management, and well-equipped factories, were among the key reasons cited for China's competitive edge. Indeed, labour costs in China were cited as being one-fifth of those offered in other countries such as the Philippines (\$1-1.50 per day versus \$5 per day, respectively). The ability of Viet Nam suppliers to offer low prices is also attributed largely to lower labour costs. According to buyers, it will be impossible for a country like Indonesia to successfully attempt to compete on this basis.

In contrast, Malaysian producers' access to good-quality plantation timber (mostly rubberwood) is said to be the major reason that costs of Malay wood furniture products are kept low. According to buyers, rubberwood is a durable and reasonably attractive wood, with many applications. Labour costs are also perceived to be on the low-side in Malaysia, although according to some buyers, labour productivity has decreased over recent years.

Figure 17: What Buyers are Saying about Price



In the market for high-end goods, price is also an important purchasing decision factor. In this regard, there was harsh criticism launched against the prices of Philippine products, even taking into account the unique designs of its high-quality products. Though not exactly comparable, prices are roughly three times as expensive in the Philippines as products in China, according to one buyer.

Strictly speaking, the average price of wood furniture products in Indonesia was seen as “mediocre” – higher than in China and Viet Nam, but lower than in the Philippines. However, buyers were almost unanimous in their view that the prices of Indonesian furniture are high when measured against quality of product. Moreover, prices offered to buyers are on the rise, even though the retail price for Indonesian-style wood furniture is reportedly on the decline.

Design

The importance of finding suppliers with the ability to offer innovative and appealing designs differs significantly among buyers. Some buyers, especially larger ones, are more interested in securing supplier relations with those who can manufacture to the design specifications developed in their North American or European headquarters. However, many buyers, including large retail outlets, are very interested in the design ideas of suppliers. In yet other cases, a buyer is initially intrigued by the designs of the supplier and places an order for originally-designed products. Satisfied with the workmanship, the next shipment that is arranged combines buyer design ideas with those of the supplier. In this situation, the design activity becomes a shared responsibility.

Indonesian suppliers that have developed long-term relationships with an international buyer, are said to enjoy this interactive approach to design.

Among South East Asian countries, the Philippines seems to dominate the high-end market and has the reputation for great creativity. Philippine suppliers, especially from the Manila/Pampanga area offer the most appealing designs. The integration of local materials into the wood furniture designs – material such as bamboo and abaca, — serve as attractive and unique accents. According to the small sample of buyers surveyed, the “Philippine style” is appealing to Middle East markets and selected segments in Europe, North America, and the Oceania, but to a lesser extent, Japanese consumers. According to selected buyers, Japanese consumers tend to prefer simpler, less bulky, and less expensive furniture items than offered by many Philippines suppliers. Vietnamese designs are seen as catering well to the Japanese market – simple and modern.

Indonesian carvers are seen as the best in the world. Unfortunately, many buyers are of the view that traditional “Indonesian” style indoor furniture may be losing its edge, as tastes evolve and alternative “native” styles emerge from other markets. In fact, buyers from the United Kingdom, the United States and New Zealand suggested that consumer demand for Indonesian style or colonial Dutch furniture is nearing saturation, as a result of a booming demand for this style during the 1990’s. These styles are not seen as nearly as unique as they once were ten, or even five, years ago.

Some buyers were encouraged by the new and interesting styles of indoor furniture coming out of Indonesian workshops. Styles that accentuate the grains of old, recycled teak and more modern lines were among the types noted.

Figure 18: What Buyers are Saying about Design

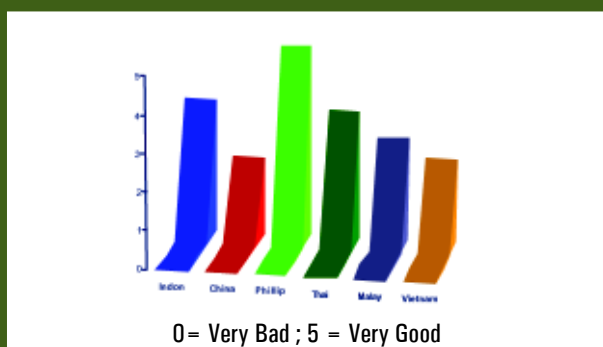


Figure 19: What Buyers are Saying about Relationship



Aside from Chinese antique furniture reproductions, buyers did not report looking to China for new design ideas at this point. However, this trend is expected to change as more and more seasoned designers and technicians flock to China.

On the downside, Chinese and Indonesian manufacturers are recognized as the most active copiers of others’ designs, followed by Vietnamese suppliers. Buyers who have not positioned themselves to sell high-priced, unique products may be interested in lower-priced reproductions. Buyers who pride themselves on offering one-of-a-kind designs, will not only be uninterested in purchasing such copied designs, they will also be reluctant to deal with a supplier who is surrounded by other manufacturers eager to replicate the design ideas of their neighbour.

Buyers suggested that by building the capacity within Jepara (or Central Java more generally) to monitor design trends and “modernize” traditional Indonesian styles, the Indonesian suppliers will be well-placed to build on their existing reputation for high-quality designs. Bringing in experts for training of new designers could be a useful investment. Given the constraints on teak harvesting, an important element of the training exercise will be integrating alternative materials into furniture styles. Moreover, China is “importing” designers from around the world, most notably the Philippines. Some buyers recommended that the Indonesian furniture industry follow a similar strategy.

Supplier-Buyer Relationships

Many buyers place a high premium on developing and nurturing long-term relationships. These relationships were characterized as “win-win” situations by many interviewees. From the buyer’s perspective, dealing with the same supplier or

suppliers, can lead to greater consistency in quality and can facilitate the types of interactive design processes discussed earlier. From the supplier perspective, a longer-term relationship offers the security of future contracts and increases the likelihood of investing in improving the efficiency of the production process. Given the potential benefits to be reaped for the supplier, buyers seem baffled about why many manufacturers are disinterested in nurturing long-standing supplier-buyer arrangements.

Views about Indonesian suppliers were somewhat mixed. On the one hand, most suppliers were seen as generally approachable. However, these same suppliers do not give the impression that they are interested in establishing longer-term relationships. In the face of increased competition and evolving tastes, demand for Indonesian teak furniture is not as high as it had been. According to interviewees, suppliers have not yet come to terms with this reality, and as such, have not yet realized the value of securing the confidence in a buyer.

Management training about the importance of building relationships is imperative, in the view of many buyers interviewed. In particular, management training courses that focus on good business practices would be a vehicle to underscore the importance of relationships while providing suppliers with the tools and know-how to do so. Messages that convey the need to treat each business transaction as if it were the sole contract and to take responsibility for substandard or delayed shipments (even a small short-term cost) would go a long way to impressing upon buyers that their business is valued.

Production

The comments of foreign buyers about the differences in production capacities across South East Asia focused primarily

on the size of orders that could be accommodated. As with most other factors, China was ranked highest, while all other countries were categorized as average. It is for this reason among others that joint ventures are becoming particularly popular in China.

Chinese suppliers have the reputation of aptly accommodating large orders of low to mid-range furniture. More specifically, Chinese suppliers tend to abide strictly by the specifications of designs from retailer or buyer headquarters in Europe or North America — “as good as any reputable European manufacturer”, according to one interviewee. Moreover, Chinese producers are viewed as the most efficient in engineering and its highly competent management teams are not afraid to seek outside knowledge and technology. Indeed, the Chinese furniture sector has allegedly invested considerably over recent years. Medium to large sized enterprises dominate the industry.

Indonesian producers are also known for their ability to produce large orders and to follow design specifications adequately. However, China is hailed as offering the greatest consistency in quality and fastest turnaround times of any other of the South East Asian countries reviewed. A few buyers suggested that the turnaround time was 3-4 weeks, as compared to 2-3 months as would be the case in, say, the Philippines. In sharp contrast to Chinese firms, buyers noted the highly labour-intensive nature of Indonesian production processes.

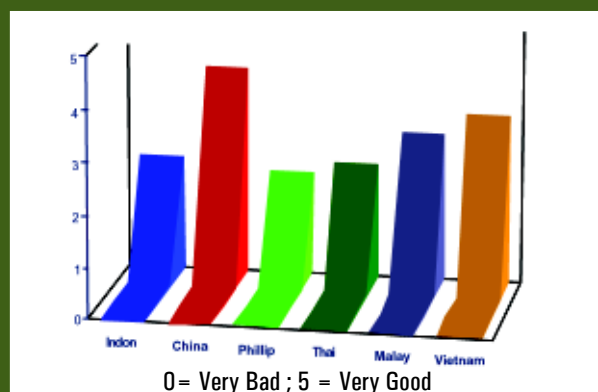
A major problem for many buyers who want to purchase from Chinese suppliers is that most Chinese suppliers are said to set large minimum volume orders, precluding many of the small to medium sized retail operations or interior designers from securing contracts in China. Chinese suppliers are not as appealing for smaller buyers. This is certainly an area where Indonesian firms could have an edge.

Philippine suppliers do not have the reputation of fulfilling mass-produced, high volume orders well, with Cebu suppliers handling larger volumes better than their competitors in the Pampanga province near Manila. Upgrading Philippine production processes is strongly recommended by buyers. According to at least two interviewees, Philippine factories are very disorganized.

Labour Standards / Working Conditions

Another factor affecting production capabilities that global buyers stressed was working conditions in the factories and workshops of the suppliers they deal with. With no exception,

Figure 20: What Buyers are Saying about Production



buyers expressed great concern about some of the conditions to which they were privy.

Nevertheless, buyers indicated that they would not exclude dealing with a supplier due to, the ventilation in the factories or long working hours by the labourers are unreasonable. Some buyers suggested that poor working conditions, disorganized factories, and unhappy workers, were often symptomatic of greater problems in the business, including: (i) poor management techniques; (ii) inefficient production processes; (iii) inconsistent quality; and (iv) higher-than-necessary prices (due to lower labour productivity). In this regard, some buyers implied that labour conditions serve as a barometer for other efficiency measurements.

Still other buyers indicated that while poor labour conditions might not in itself be a reason to avoid entering into a contract

with a supplier, it might be a reason not to invest in a long-term relationship with them. Moreover, if other problems begin to arise (such as a delayed shipment or flawed goods), then labour conditions might be an additional factor deterring a long-term relationship.

Though consumer interest in labour standards is intense in some sectors, it has not reached high levels of concern in the wood furniture sector yet.

No country included in the survey fared particularly well regarding the working conditions. According to buyers, treatment of labourers is poor throughout the region, with factories and workshops having no ventilation and awkward standing arrangements. Factories in other countries were cited as having extremely long working days as well as poor cleanliness and ventilation.

Table 7: How to Improve your Productive - 10 Easy Dos and Dont's

Adapted form the ILO Sponsored Handbook for SMEs: How to Improve Job Quality and Productivity of SMEs²⁸

STEP #	SME A ✓	SME B X
ONE	Chooses timber carefully and uses alternatives.	Sticks only to teak wood and cares only about price not quality.
TWO	Learned how to dry, cut, treat, and store timber properly.	Is only concerned about finishing the job as quickly as possible.
THREE	Finds ways to reduce the amount of scarce raw materials he uses.	Maintains current niche only.
FOUR	Learned how to minimize his waste.	Does not believe there are ways to cut waste.
FIVE	Learned how to calculate the real/full cost of production.	Does not estimate costs before offering price quotation to buyer – just charges lower than neighbour.
SIX	Organized the workshop to be more efficient.	Has a disorganized, cluttered workshop – no time to clean.
SEVEN	Looks after the workers so that they look after the business.	“At least you have a job” is the approach to the workers.
EIGHT	Treats each buyer as special.	Doesn't care if any one buyer comes back again
NINE	Carefully checks the quality of each product before they leave the workshop.	Moves on to the next job without ensuring quality of current contract.
TEN	Joined an association or industry association for lobbying, networking, and participation in trade shows.	Sees other businesses as competitors only



Chapter 5:

Socially Responsible Industry Upgrading

In an industry dating back to pre-colonial times, skilled woodworkers in Central Java ply their trade in an age-old fashion, producing handcrafted teak and mahogany furniture for export around the world. With 70% of the products destined for homes and fashionable boutiques in far away lands, this sector has become the number one employer and income generator in the province. Men, women, and entire generations of youth depend on these markets for their livelihood.

This story provides a vivid example of how participation in the global economy offers the prospect of significant growth in terms of income and jobs.

However, as this report set out to demonstrate, the gains from globalization do not come automatically and can be difficult to sustain. The sector, once thriving and prosperous, faces distress. Added to pre-existing pressures related to declining stocks of traditional sources of teak and mahogany, as well as inefficiencies at the firm and cluster level, pressures in the global marketplace have presented new challenges to the industry. Neighbouring countries have been quick to join the race for profits, sparking fierce competition with cheaper, mass-produced

items and new designs to meet changing consumer demands. Though established relationships and sunk costs may deter buyers from leaving Central Java, other global buyers with less ingrained stakes have claimed a diminishing interest in outsourcing to Central Java firms.

Change in both the structure of the industry and the employment generated by it, are inevitable. Unmanaged, this change will result in reduced income generation, poorer job quality and, more generally, increased poverty in the region. Those most vulnerable and susceptible to lose in this process are workers in household units and in small enterprises, carvers dependent on high quality timber, and unskilled / low-skilled workers (including women) employed in larger factories. These workers have few alternatives but to follow in the footsteps of generations before them.

In the Indonesian context, short-term changes – such as lowering input costs, including wages, working conditions, and capital investment – are not the overall solution. Such partial interventions will not alleviate structural problems and are not viable solutions to pull the industry out of crisis. They do not

Figure 21: Perceptions of Global Buyers': Inter-Country Comparisons of Wood Furniture Sector



address the main question: the costs of this industry are not competitive with several other emerging furniture producing countries in the Asian region, and the Indonesian furniture industry is developing a reputation for poor quality and unreliable supply. Global buyers have said it themselves. This is where the competitive gap is most significant. In addition, the local communities do not seem able to manage their forestry resources in ways that are functional to export success and environmental concerns.

The policy challenge for all concerned is to develop strategies for participating in the global economy on the basis of higher standards of quality and innovation. This is the way to ensure adequate and sustainable local income opportunities. It could be achieved through a focused strategy to increase productivity and improve competitiveness in a socially and environmentally-responsible manner all along the value chain. In this approach, SMEs should not be seen as residual players, useful only to buffer shocks in prices and quantities, but as the components of a vast, flexible and efficient sourcing basis to deliver quality and volume to global buyers and to larger globally connected local businesses.

A Four-Pronged Upgrading Strategy

This report advocates an upgrading strategy — built on the strengths of the industry, while mindful of the very real constraints posed by raw material supplies — that provides clear direction for the type of industry-level change that companies can mobilize around and promote. Sectoral restructuring is a complex exercise, involving interventions at many levels from macroeconomic policies to infrastructure and local business regulations. But much can be achieved through targeted initiatives aimed to mobilize

local enterprises and their communities and to enhance their intelligence about technology, markets and competition.

In this way, the ILO is aiming to engage all concerned — including local and national government, enterprises, workers and trade unions, environmentalists, consumers and the international donor community — in the process of building a future for the Indonesian wood furniture industry that benefits from globalization while providing good quality employment and working conditions.

The programme of action is based on four separate but mutually reinforcing pillars:

Pillar A: Cooperation - establishing a platform for multi-stakeholder social dialogue and advocacy for stakeholders throughout the value chain.

Pillar B: Strategic Upgrading — implementing socially-responsible upgrading strategies at the provincial, district, and firm levels.

Pillar C: Institutional Capacity Building - of training institutes, business development services and associations to help implement an industry upgrading strategy.

Pillar D: Enterprise Champions — to showcase enterprises and clusters, where innovative and replicable socially-responsible industry upgrading strategies have been adopted.

Pillar A: Establishing a Platform for Social Dialogue

Every actor along the value chain has a stake in the competitiveness of the wood furniture industry in Central Java, and the SME sector in particular. International buyers are keen to profit from the talents and resources of Java and have an interest in ensuring that local producers understand the tastes and styles popular in their home markets. Exporters are eager to expand their presence globally by offering a consistent and quality product of Javanese origin. The success of the larger, well-established furniture manufacturers depends on the ability of their sub-contractors, and more generally on other firms in the industry, for quality input and something more- they also realize that the sum total of all products and business relationships from the province determines their reputation worldwide. The workers in all activities — from the kiln dryers and carvers in Jepara, to

the auctioneers and port handlers in Semarang - rely on this industry for their livelihood. The local academic community has an incentive to cultivate relevant skills that respond to the needs of the industry, in order to attract business. The local government officials count on the sector for employment generation, tax revenue and generally, the viability of the municipalities. PT Perhutani, alongside the regional and national forestry ministries, are blatantly aware of the threats to the teak plantations and have a strong interest in avoiding harsh criticism by industry groups, environmentalists, and the international community. And in turn, the small and medium enterprises depend on all others for their livelihood.

Unfortunately, many of these players do not understand, or have access to, information about their position within the value chain or about the pressures on the industry for change. As we move further away from the furniture processing activity, for example, the ability to understand, control, or respond to the pressures, becomes more difficult.

As a first step, we need to respond to create an awareness of this interdependence and translate this awareness into concrete cooperation. Through a greater understanding about why players, both internal and external to the furniture processing clusters, have an interest in a viable sector, strategies geared toward cooperation can be forged. Furthermore, such collaboration can ensure that those workers and youth-in-training, who will be forced to find new livelihoods, experience a smooth transition. The effect of these strategies will ultimately hinge on whether the players see an incentive to collaborate and whether a certain amount of trust and good will are generated.

A Forum has been established in Central Java, including a range of key stakeholders along the value chain in this sector. Contact with the Governor of Central Java province has been positive, and the ILO has been invited to participate in the Forum, in order to contribute toward identifying steps forward to help this industry restructure in a socially sensitive way that will aim to avoid job losses and guarantee a productive future for this industry and for generations of workers to come. As a first step, it would be useful to:

- identify natural leaders for such a platform: for example, co-chairs representing provincial government and industry;

- develop the list of participants to ensure all groups are represented including from owners of timber, local policy makers, furniture enterprises, training institutes, international buyers, national agencies (Perhutani, Ministry of Forestry, Department of Trade and Industry), regional and district agencies; industry associations (ASMINDO, FEDEP, local and village-level associations); worker groups (furniture, crafts); and NGOs;
- draft the terms of reference and objectives of this forum;
- determine the necessary functional and geographic working groups that would allow for issue-specific and district-level strategies to be forged;
- agree on the necessary support from the donor community – as facilitators, capacity builders, technical advisors, etc.

Pillar B: Socially-Responsible Upgrading Strategies

Much can be done now at the district, local, or firm level. For example, existing firms can take steps to diversify the use of materials, products, skills, markets and production processes (See Figure 22). In this regard, local level associations and public sector agencies can promote ancillary industries to increase job creation and skills upgrading along this and other related value chains and to tailor local development approaches to this end. In promoting the above, strategies could include:

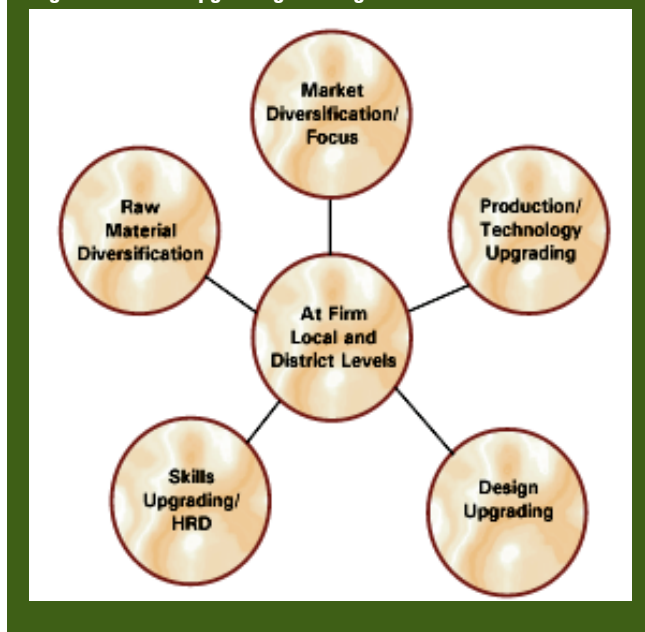
1. Raw Material Diversification:

Objective: Revisit Perhutani allocation policies of teak and mahogany to maximize high value-added use.

Activities:

- encourage private and/or community planting of teak wood;
- integrate new materials into production and marketing strategies;
- match quality and durability of wood with end-user needs;
- minimize waste of good quality timber.

Figure 22: Five Upgrading Strategies



2. Design Upgrading:

Objective: Cultivate an innovative design culture in enterprises and clusters.

Activities:

- support BDS and training institute design capabilities, including by way of exchange programmes overseas;
- invest in R&D of designs for alternative wood and alternative materials (e.g. rattan; durian);
- promote high-value product designs for teak, aimed at high-price consumer groups;
- develop a toolkit for SMEs that provides practical advice for monitoring trends through the internet, magazines, etc;
- familiarize firms that participate in supply chains about differences in trends in international/domestic markets.

3. Production and Technology Upgrading

Objective: Update inefficient and outdated practices

Activities:

- launch productivity assessments to identify efficiency improvement measures;
- invest in measures that allow for the use of new raw materials;
- undertake improvements to workshop layout, cleanliness, and ventilation that will improve productivity;

- make necessary investments in basic equipment such as water content measurement devices;
- amend timber processing practices (cutting, drying, treating, and storing wood) to minimize waste, shrinkage, and cracking;
- support quality control programs at the firm and industry level (from basic controls to making ISO certification more available to enterprises).

4. Skills Upgrading / HRD

Objective: Define a new role for the workforce

Activities:

- undertake a mapping exercise to assess skills needs in clusters and contrast these with existing BDS/training offerings;
- invest in management and worker skills to facilitate the move toward new designs and use of alternative raw materials;
- launch a campaign aimed at explaining how harm can result for workers from poor health and safety practices in the workplace (the need to use safety equipment such as masks, goggles, ear muffs, shoes);
- upgrade regional training institutes to ensure that youth are equipped with new skills as regards entrepreneurship, design, to lead the way for viable sector;

5. Market Diversification / Focus

Objective: Design and implement a comprehensive plan aimed at motivating enterprises and equipping them with the means to value relations with international buyers.

Activities:

- invest in management training on costing and pricing, good practices regarding accountability for quality, etc;
- target markets with greatest potential (based on consideration of resources, design capabilities, etc);
- explore new market potential through foreign expert exchange initiatives and targeted support for, and use of trade shows.

Pillar C: Institutional Capacity Building

The menu of ways to encourage implementation of an industry-wide strategy is long, and will likely need to combine several activities, with different responsibility units. Practical activities that encompass selective incentives and clear results will need to be developed.

To equalize the voice that all key industry players have in the platform for social dialogue, and to ensure genuine implementation of an upgrading strategy, investment must be made initially to build the capacity of institutions and players in the sector. In particular, capacity must be cultivated within:

- Government – to equip relevant officials with the tools to genuinely engage in consultations, and to successfully advocate change, within their organizations;
- Industry associations - particularly those representing SMEs and workers at the village level who could be key agents for change.
- Academic Institutes and NGOs - so that they are able to provide the analytical support to policy makers and industry player;
- BDS / Training Institutes – so that they can offer the necessary upgrading know-how to businesses and so that they can prepare the youth to enter the job market with skills that move the sector forward and toward the goal of upgrading competitiveness, labour and working conditions.

Possibly through a technical working group, the groundwork for a coordinated capacity building exercise could be launched

- undertake a mapping exercise of the institutions and players active in supporting sectoral activities – from timber production (silviculture) to the links with global markets, with furniture (or other) manufacturing in between;
- identify the gaps and opportunities of the existing institutional landscape;
- encourage coordination among institutes – including by developing niche roles for the players;
- secure targeted donor funding for capacity development.

Pillar D: Enterprise Champions

It is often difficult to visualise what is necessary to become a more competitive sector or enterprise. In order to establish concrete aspirations for individual enterprises, it is helpful to present case studies of real examples of success.

In this regard, a fourth pillar of a socially responsible restructuring plan could focus on developing and showcasing business champions - selected in consultation with industry and worker representatives - that can serve as benchmarks for other firms. These champions, single enterprises or clusters of enterprises, would operate efficient businesses and would recognize the value of their human resources, as meaningful contributors to sustainable competitiveness.