Furniture and people
A photo journey from market to forest

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Acknowledgement

The authors of this book would like to thank James Clarke for his idea that initially started the making of this photo story book. We would also like to thank Edith Johnson who helped in text editing; Gun Gun Rakayana, Eko Prianto and Gideon Suharyanto who helped with the layout, and also Ramadhani Achdiawan and Henny Linawati for their substantial input. Our thanks also goes out to the Jepara District Head, Hendro Martojo and government officials Salembayong, Djarot and Herry Purwanto for their invaluable support; Jati Widodo from Duta Jepara who kindly showed us the furniture production process at his factory; Koja Container Terminal, Tanjung Priok Customs Office, PT Pelindo II and CDC Banda Warehouse for providing access at the port of Tanjung Priok; Ahmad Fauzi, Achmad Zainudin, Karwadi and Bambang K. Kurniawan for their assistance in Jepara; as well as Akot Nurputro, Asrofi, Darwin, Muhamad Hatta, Margono, Sugiyanto, Nurhamid, Sholikin and Ali Anwar from the Jepara Small-scale Furniture Producers Association. Lastly, we would like to thank Taufik Istiqlal and Murdani Usman, without whose photography talents, we would never have completed this book with such high quality pictures.

The authors

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Foreword

This illustrated guide describes the different aspects of the furniture industry in Jepara affected by our furniture value chain project. The project aims to improve small-scale furniture enterprises that rely on mahogany and teak timber in Jepara by enhancing the structure and function of the furniture industry. Improved governance and efficiency can position small-scale producers in a greater role within the value chain, help their furniture enterprises thrive and enhance their income levels. The goals of the project are in line with UNDP’s millennium development goals (MDGs) on poverty alleviation, global partnerships and environmental sustainability.

This guide tells the story of the furniture industry through photographs. Working backwards through the value chain, we start from the furniture buyers’ markets, trace furniture back to furniture producers, then to timber trading and the forests where the timber comes from.
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1. Introduction

The use of teak in furniture making has long been a part of Javanese culture. Centuries of historical records dating back to the seventh century BCE describe the abundance of teak forests in Central Java and the formation of skilled carpentry groups who used its timber for the Kalingga, Majapahit, Demak and Mataram kingdoms. The Javanese consider teak and items made from teak a valuable part of their culture, a species apart from other types of wood. Local carvers and furniture makers absorbed the influences of Chinese, Indian, Arabic and European designers, producing to this day
intricate designs and highly sought after furniture. The seventeenth century port city of Jepara, once a bustling centre of maritime commerce, remains today a major centre of furniture production in Central Java.

The Indonesian furniture industry faces challenges as it struggles to secure its place in competitive global markets. Business relations between furniture producers and their buyers are usually unbalanced; buyers set the price and producers cannot negotiate a better deal. These unfair relations are part of the legacy from Javanese court practices. Patron–client relationships among members of the Javanese royal household and their subservient carpenters have defined that imbalance since the seventh century when Queen Shima instructed her skilled workers to create specific furniture and art designs for her palace with no compensation. In 1700, Queen Kalinyamat encouraged her woodworkers to produce high quality furniture for international trade, as did the Indonesian heroine, Kartini in 1800, who helped promote their work to Europeans with whom she corresponded. Patrons supported woodworkers by instructing product designs, opening access to markets, and ensuring steady orders. Their role was often considered as ‘godly’, highly honoured and never questioned. These patron–client relationships are still present in modern day relationships between buyers and Indonesian furniture producers, which we will discuss later on.

The Furniture Value Chain project is currently assessing opportunities for improving the added value of Indonesian furniture products which, in turn, will improve the livelihoods of millions of people involved in the industry, despite the current gloom in the furniture industry. Indonesians can build on their comparative advantages to mark their specific strengths on the international and domestic market.

‘Furniture value chain’ describes the series of activities required to bring a product or service from conception or design, through different phases of production, to delivery to final consumers.
and disposal after use. The value chain applies a systemic lense on a particular product. This bigger picture helps explain at what points in the chain value is added, and helps analyse where those participating in it can boost their income. Good value chain governance ensures that interactions between enterprises and firms along the value chain are efficient and effective. Power asymmetries among various actors is central to value chain governance.

There are four types of value chain governance.

• The market governs whenever there are many customers and many suppliers and repeat transactions are possible. In market governance information flow is limited and no technical assistance is available.
• In a balanced network suppliers have various customers; information flows freely in both directions, and both sides can and do solve problems through negotiation.
• A directed network is indicated by a main customer who buys at least 50% of a supplier’s output; the customer defines the product and provides technical assistance, and information is unbalanced
• A hierarchy governs whenever there is vertical integration; supplier enterprises are owned by the buyers so they have very limited decision-making authority.

The Jepara furniture value chain connects producers from Jepara District with furniture retailers abroad (Figure 1). The governance type between finishing companies and small-scale producers is a hierarchy. The global buyers are subsidiaries of the overseas retailers. Few finishing companies develop their own designs. They are protective of their designs and try to prevent others from imitating them for mass production. For their part, the exporters are driven by the foreign importers and global brokers, who are in a directed network system with international retailers.
Figure 1. Jepara value chain governance

- Foreign end consumers
- Foreign retailers
- Global brokers
- Importers
- Mechanised furniture producers
- Finishing companies and exporters
- Domestic end consumers
- Domestic retailers
- Domestic furniture brokers
- Small-scale producers
- Sawmill owners
- Wood brokers
- Wood retailers
- Perum Perhutani
- All timber suppliers outside Java
- Community-based agroforestry
- Unknown sources

Networks:
- Balanced Network
- Directed Network
- Hierachy
- Market Based
The small-scale producers are in a directed network relationship with domestic brokers. The brokers are the main customers of the small-scale producers and take more than 50% of their products. The brokers can easily shift from one producer to another. Governance by a directed network is also dominant between exporters and small-scale producers. In some situations, the relationship has become a hierarchy when exporters have exercised more control over small-scale producers. Few small-scale producers have their own showrooms. Mechanised furniture producers have a better position in the value chain. They are in a balanced network relationship with their buyers, the global brokers and importers.
Chapter 2

Foreign and domestic markets
2. Foreign and domestic markets

Wood furniture is the most important export commodity produced in Jepara. Annual exports are valued at about USD 100 million. There are 510 wood furniture export companies in Jepara that export to 99 destination countries. The primary export destination countries are Australia, France, the United Kingdom, Hong Kong, Saudi Arabia, Spain, and the United States. Exporting companies identified eco-certification, bureaucratic burdens, legal requirements, raw material supply, capital and marketing as challenges for improving their competitive advantage.
The local furniture market covers an extensive list of showrooms, promotion centres and exhibitions. Both local and international buyers browse through these different channels, looking for the best quality products. They buy as both retailers and wholesalers. Most international buyers are global wholesalers or retailers, but local buyers run the gamut from end consumers themselves or to export brokers.
Buyers survey furniture products at an exhibition
A buyer shopping for wooden furniture products

Purchases wheeled off to a buyer's car.
A giant chair stands before a furniture promotion centre in Jakarta.

Sales promotion men on duty at an upmarket furniture showroom in Jakarta.

A furniture promotion centre in Jakarta dedicated to small-scale producers.
An upmarket furniture showroom in Jakarta
Furniture products on display at a gallery in Jakarta
Packed furniture ready for export in Jakarta
Product rejects on sale at a furniture bazaar in Jakarta

Wooden chairs ready for delivery in Jakarta
A furniture store in Jakarta

Indoor furniture on sale in Jepara
A typical road in Jepara

A sidestreet showroom in Jepara

Sofas with wooden carving on sale in a Jepara store
**FURNISHINGS IN SOLID TEAK**

The wood used to produce this item of furniture is naturally impregnated with the resin oil that the teak tree has in abundance. This substance confers on the wood an extraordinary resistance to the elements and allows it to develop various silvery grey hues with passing time, the shade depending on the humidity of where the item is kept.

Any irregularities in the colour of the product at the time of opening packaging are to be considered quite normal, given the different portions of wood used to make different sizes of parts: exposure to light will even out the colour relatively quickly.

We recommend you clean the furniture with mild soap and water. The use of teak oil will contribute to softening the fibre in case of excessive dryness in the wood, in which case we recommend rubbing the oil energetically all over the surface of the furniture using a white cotton cloth.

Wait for the oil to dry completely before using the furniture again. If you prefer to recover the wood’s original colour, use very fine sandpaper and thus remove the oxidised layer, to uncover the original teak colour beneath.

A product tag explaining how to care for wooden furniture
A side street furniture store in Jakarta

Product enquiries at a furniture showroom in Jepara

Striking a deal in Jepara
Outdoor furniture on display at a store in Jepara

A stack of packed chairs ready for export in Jakarta

A typical showroom in Jepara
Local buyers shop around for furniture in Jepara
Eyeing some wooden goods in Jepara

Buyers browsing through a showroom in Jepara

Foreign buyers scrutinising goods on display at a Jepara showroom

Foreign buyers scouting for potential goods in Jepara
Buyers look around in a furniture shop in Jepara

A buyer watches the shop owner packaging goods in Jepara
Finalising transactions in Jepara

Wrapping goods at a Jepara showroom
Shopping for wooden furniture in Jepara
A furniture set being loaded for delivery in Jakarta
Chapter 3

Loading and shipping
3. Loading and shipping

Furniture is shipped to local and foreign markets using different transportation channels. Trucks move furniture straight from the producers to local showrooms and promotion centres throughout Indonesia. Delivery to foreign markets requires a more complex chain of transportation. Pickup trucks collect products from producers and deliver them to a nearby container, arranged by an exporting company. Once the container is loaded, it is sent to the harbour for shipment. Upon arrival at the harbour, containers are stored to await document clearance from the customs office, then uploaded to container ships. It can take a couple of days or several weeks for a fully-loaded container of furniture to arrive at its overseas destination.
Goods ready for shipment

Loading furniture onto a truck
Loading a container

Tying down furniture to ensure safe shipment
Loading a truck
Loading a container

A fully-loaded truck transports furniture to local markets

Transporting goods to containers
Making a tight fit

Loading a container
A fully-loaded container leaves for the harbour.
Trucks deliver furniture products to export warehouses.

Forwarding companies line up at the customs office to complete their export documents.

Customs officers recheck export documents before processing.
Furniture products are stocked in warehouses ready for export.

Heavy machines transport furniture goods from warehouses into export containers.
Export containers half opened for loading

Export goods loaded into containers using heavy machinery
Rows of containers piled up the yard
Container parking lot
Trucks deliver containers ready for loading

Trucks line up for loading.
Giant cranes transport containers onto shipping vessels
Assisted by human hands, cranes unload shipping vessels from abroad

Quay container cranes stand by the harbour ready to load shipping vessels
Tug boats sail past the quay, ready to assist giant shipping vessels out to sea.
Tug boats prepare to guide a shipping vessel

A second boat sits by the rear of the sailing vessel
Completing its task, a tug boat leaves the ship to sail

A tug boat guides a vessel bound for Singapore
A tug boat guides a ship off to sail.
A ship bound for Hong Kong finally sets out to sea
Chapter 4
Exporters and big companies
4. Exporters and big companies

Exporters and large-scale companies generally obtain unfinished furniture from small-scale producers. They specify the products they will buy from these producers. Those specifications come from their buyers abroad. If the unfinished furniture fails to meet these specifications, the producers must fix the products before the exporters will accept them. These rules are set by the buyers, and they set the price. A producer can rarely negotiate on price unless they already have an established, long-term relationship with the buyer.

Other large-scale companies cooperate with fully integrated and mechanised furniture production enterprises. These producers have their own log yards and maintain timber stocks for at
A sawmill at a big company
Operating a sawmill

Stacking wood panels in order

Ensuring measurements before making components
Wooden waste becomes fuel for kiln dry furnaces

A female worker operates a wood cutting machine

Smoothing a piece of furniture

Sanding a chair
least one year’s worth of production. Increases in timber prices would not immediately affect their costs for source wood.

These companies employ hundreds of specialised workers who work in specific phases of production. Fewer women operate machinery; those who have generally been with the company long term. Women predominate in the lower-skilled finishing and packaging sections. They do the sanding and polishing, but unlike their counterparts in the smaller companies who finish by hand, these employees use sanding machines. Then they sand manually where the machines cannot reach.
A woman sands a piece of furniture at a big company.
Furniture products ready for polishing
Workers at a big company assemble furniture components
Loading packaged goods into a container

Packaged products ready for export
Chapter 5
Small-scale producers and their associations
5. Small-scale producers and their associations

Small-scale furniture producers are the main actors in furniture production in Jepara. They choose the timber stock, make components, assemble them and supply the furniture ready for finishing to large-scale companies and exporters. They search for orders, and may be forced to take orders at prices insufficient to cover their production costs. Competition among small-scale producers is
fierce. Some buyers take advantage of this situation and push down producers’ profit margins.

Men usually do the heavy work of making components and assembling the furniture. Women do the lighter jobs in finishing such as sanding the raw furniture products as they are deemed tidier and more patient. Men are generally paid more than women.

The approximately 15 000 small-scale furniture producers in Jepara needed an association capable of improving their decision-making authority within the range of governance systems and serve as a forum through which they could share their problems. The Small-scale Furniture Producers Association in Jepara APKJ was established in December 2008. The group aims to improve small-scale furniture producers’ capacity to function independently and be competitive in the global market, to empower the members of APKJ to advance the prosperity of the Jepara furniture industry. The association plans to improve small-scale furniture producers’ skills for a better bargaining position, to create fair market prices and to facilitate access to credit. APKJ also plans to address the main challenges furniture producers face in marketing, raw materials, access to capital and human resources.
Smoothing furniture components
Smoothing furniture components
Forming furniture components
Tracing carving patterns
A man carves a piece of wood for embellishing furniture.
Woman sand unfinished furniture products

The younger generation of furniture producers

Polishing unfinished furniture
Women sand unfinished products for export
Female wood carvers
A woman sands unfinished furniture products.
Members of the Jepara Small-scale Furniture Producers Association
The Jepara Small-scale Furniture Producers Association (APKJ) secretariat office

Jepara small-scale furniture producers gather at a meeting
Jepara small-scale furniture producers discuss plans to form an association.

APKJ board members discuss plans to participate in a furniture exhibition.

Small-scale furniture producers enjoy refreshments during a meeting break.
The APKJ chairman shares his thoughts on exhibition plans
Akot Nurputro
Teak garden table producer

Asrofi
Indoor teak furniture producer
H. Darwin
Outdoor teak and indoor oak furniture producer

Margono
Indoor teak furniture producer

Dining cabinet
Folding table
Betawi style chair
Porch chairs
Zumaroh
Indoor teak furniture producer

Mirror frame

Round mirror frame

Table clock

Wall mirror case

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Mohamad Hatta
Teak chair producer

Curved chair

Sugiyanto
Indoor mahogany furniture producer

Bottom holed chair

Working table
Nurhamid
Indoor and outdoor teak furniture producer

Ahmad Sholikin
Natural form furniture and craft producer

Dressing table

Crab chairs

Rocking horse

Fish chair

Rose petal chair
Chapter 6
Timber trading and sawmills
6. Timber trading and sawmills

Log traders obtain logs from community forests, the state-owned timber company Perhutani and unknown sources. Compared to 10 years ago, log traders in 2009 have greater difficulties obtaining larger diameter logs. This finding indicates a potentially alarming situation on timber availability.
A log yard where log traders and buyers meet
Another finding on timber constraints is the increasing price for logs. Industry observers estimate that these price increases are caused by timber scarcity as well as external factors including higher fuel prices.

Small-scale producers tend to buy logs from log traders located near their workshops to minimise transportation costs. They also tend to buy cheaper small-diameter teak and mahogany logs to keep their production costs down.

Average wood consumption decreased from 2005 to 2008, both in quantity and value. This is a natural consequence of the increase in timber prices, particularly as producers are not securing higher prices for their products. The decrease suggests that producers are becoming more efficient; making more money out of less wood, a promising trend for the teak and mahogany plantations.
Workers offload logs from a truck to a log yard.
Workers off-load from truck to logyard

Carrying a log
Workers upload logs at a log yard
A pickup truck carries sawn wood for furniture raw materials along a Jepara road.

Workers saw logs using machinery.

A worker chainsaws a log.
Workers saw logs mechanically with a bandsaw

A worker saw logs with a chainsaw
A worker saws logs
Bandsaws process timber into wooden planks.
Chapter 7

Forests
7. Forests

Teak and mahogany are the two most sought after hardwoods in international markets. Teak is the most in demand tropical hardwood due to its strength and aesthetic qualities. More than 90% of the world’s teak grows in South and Southeast Asia in natural and plantation forests. Mahogany originated in natural forests in Latin America. Teak has been naturalised in Java, Indonesia, where it was introduced somewhere between 400 and 600 years ago along with mahogany. Javanese teak and mahogany plantations provide wood for many furniture manufacturers and producers in Indonesia and other parts of the world.
Under the canopy of a small-scale mahogany plantation

A rest shelter in a teak plantation

Fast growing Perhutani teak

Teak seedlings in a plantation
Teak and mahogany timber harvested in Java comes either from state forests or community forests. Perhutani is the state-owned, major producer of teak and mahogany. Perhutani manages about 1 million hectares of teak plantations on state lands. Hundreds of thousands of smallholders also produce teak and mahogany on community land. Small-scale harvesting is on the rise. Industry observers predict that, in future, community and smallholder forests will produce more teak and mahogany timber than Perhutani does now. The current dearth of teak to supply the furniture industry threatens the viability of this industry in Jepara. Some industries are exploring the use of other woods, including sonokeling, acacia, mangium, mango, jackfruit and durian trees as well as coconut palm stems.
Small-scale teak plantation
Small-scale mahogany plantation
Small-scale sonokeling plantation
A woman harvests ground nuts amongst sonokeling trees
Chapter 8

Key messages
1. Many people make a living through the small-scale furniture industry.
2. A furniture industry that is culturally rooted stands a better chance of survival.
3. Jepara is a world carving and learning centre with unique culture, history and unlimited potential for creativity.
4. Action research in which understanding and changing behaviour occur at the same time is needed to improve small-scale producers’ place in the industry.
5. Good governance within the value chain will provide better bargaining power, market access and wood access for small-scale producers.
6. Government intervention is needed to improve small-scale producers.

7. Four promising scenarios could help improve the situation for small-scale producers:
   - Collaborating more closely to the source: Small-scale producers collaborate with wood traders and tree growers.
   - Moving up: Encourage small-scale producers to move up to the higher stages in the value chain. For example to function as furniture brokers, finishing companies or exporters.
   - Green products: Produce certified, eco-labeled or green furniture. This requires up and down coordination between various companies in the value chain.
   - Small-scale associations: Organise small enterprises locally and assist them in accessing financial institutions and markets.
This publication comes out of a 5-year project CIFOR is implementing up to 2013 called the ‘Mahogany and teak furniture: Action research to improve value chain efficiency and enhance livelihoods’ project. This project—funded by the Australian Centre for International Agricultural Research—is being implemented by CIFOR in partnership with the Jepara District Government, the Jepara Multistakeholder Forum, the Forestry Research and Development Agency of Indonesia’s Ministry of Forestry and the Faculty of Forestry at Bogor Agricultural University.

www.cifor.cgiar.org/furniture