Editorial

We present to you the fourth edition of the Furniture Value Chain newsletter which is part of a research project funded by the Australian Centre for International Agricultural Research titled ‘Mahogany and teak furniture: Action research to improve value chain efficiency and enhance livelihoods’. Our research aims to improve small-scale furniture enterprises (SMEs) in the district of Jepara, Central Java, Indonesia, by providing useful analysis of the structure and function of the furniture industry.

This edition presents a number of project activities. We have been focusing on improving capacity of small-scale furniture producers. In the last 4 months, we conducted 2 training courses for such producers. The first dealt with product quality improvement and financial management for SMEs. The second dealt with chain of custody certification.

The project team also conducted 3 surveys. The first updated the ‘Jepara atlas’, first published in 2007. The second survey identified the institutions involved in Jepara’s furniture industry. The third survey examined the role of information technology for small-scale producers.

Happy reading!

Institutional survey

Many institutions play a role in governing and overseeing the furniture industry. A well-accepted definition of institutions says that they represent the ‘rules of the game’ in society. One formal definition states that institutions...
are humanly devised constraints that shape human interaction. Institutions thus structure incentives in human exchange, whether political, social or economic (Herrera 2005, cited in North 1990).

To determine the numbers and roles of institutions involved in the furniture industry, a survey on the institutions in the furniture value chain was carried out in Jepara in January–February 2010 (Table 1). Researchers identified these institutions as well as the relations, actors and rules, both formal and informal, that characterise the furniture industries’ organisation. Researchers also learned more about how they interact: what they are, what they should be and how formal and informal institutions can affect the furniture industry.

Researchers relied on mapping methods in this phase of the project. They mapped out the furniture value chain to identify the main actors and the flows of products, money and information. They also mapped the institutions to determine how they influence the functioning of the value chain and to learn about the relationships between institutions.

Figure 1 illustrates the furniture value chain including all activities that transform raw material, wood, either from Perhutani or community forests, into a finished product that is sold and consumed through a broker or retailer to a consumer. It also shows that many organisations and networks participate in the chain, fulfilling critical functions that interact.

Each actor in the value chain has a different role and function. Relations amongst the functions often show the critical strengths and weaknesses of this institutional system. The relationships among institutional actors and agencies, and the institutional context in which they operate, are generated by their roles and responsibilities. All these relations occur within the policy and legal frameworks that have been established. These policies, laws, incentives and sets of resources allow agencies to operate. These relationships are also a reflection of far broader patterns in society that may determine how different kinds of agents interact. These interactions are largely about power, and the processes by which it is distributed and exercised.

Institutions work through many different types of relationships. The types of relations are informer, influencer, dependent and antagonist. In this survey, we classified the relations between government agencies as bureaucratic.

From the study, we suggest small-scale producer associations should learn from existing organisations how to link with other institutions. We also suggest that existing institutions should synchronise their activities in order to improve their capacities and work together to reform the furniture industry situation.

### Training needs assessment

The research team conducted a survey to assess the training needs for small-scale furniture producers.

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### Table 1. Institutions included in the survey

<table>
<thead>
<tr>
<th>Category</th>
<th>Name</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>Producer associations</td>
<td>Small-Scale Furniture Producers Association;</td>
<td>APKJ; ASMINDO</td>
</tr>
<tr>
<td></td>
<td>Indonesia Furniture Industry and Handicraft Association</td>
<td></td>
</tr>
<tr>
<td>Stakeholder forums</td>
<td>Forum Rembug Klaster (Multistakeholder forum); Forum for Economic Development and Employment Promotion</td>
<td>FRK; FEDEP</td>
</tr>
<tr>
<td>Government agencies</td>
<td>Trade and Industry of Jepara; Co-operatives, SMEs and market management; District Development Planning Agency; Forest service</td>
<td></td>
</tr>
<tr>
<td>Institutions supplying raw materials</td>
<td>Himpunan Pengusaha Kayu Jepara (Association of wood entrepreneurs); Perum Perhutani (State-owned forest plantation company)</td>
<td>HPKJ</td>
</tr>
<tr>
<td>Colleges</td>
<td>Sekolah Tinggi Teknologi Design Nahdlatul Ulama (Nahdlatul Ulama Design and Technology College; Sekolah Tinggi Ilmu Ekonomi Nahdlatul Ulama (Nahdlatul Ulama School of Economics)</td>
<td>STTDNU; STIENU</td>
</tr>
<tr>
<td>Banks</td>
<td>Bank Perkreditan Rakyat (People’s credit bank); Bank Rakyat Indonesia</td>
<td>BKK; BRI</td>
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</table>
The project held a training for small-scale producers on 9–10 April 2010, after the workshop on furniture industry structure. The course took place at the Jepara Trade and Tourism Centre.

Participating producers reported that they wanted training in how to improve furniture product quality and financial management. They especially wanted to learn how to get a loan from the bank and to manage it properly. During interviews with small-scale furniture producers in Jepara, they told researchers about difficulties they experienced accessing low-interest credit from state banks. They usually get credit from private banks or lending institutions that offer higher interest rates. Participants also said that many of them failed to pay back their loans.

**Workshop on strengthening the furniture industry structure in the face of the ASEAN—China Free Trade Area**

Held 7–8 April 2010, this workshop presented a clearer vision of the landscape of the furniture industry structure in Jepara. Before the workshop, project staff contacted the Ministry of Industry and the Ministry of Trade of Indonesia to learn about their programmes and plans for the industry and to invite their representatives to speak at the workshop. The institutional survey conducted in January–February 2010 prepared the way for this workshop.

Setio Hartono from the Ministry of Industry spoke about the road map for Indonesia furniture industry until 2025. Hartono used a SWOT (Strength-Weakness-Opportunity-Threat) analysis of Indonesia’s furniture industry and the mid and long term objectives of the Ministry of Industry programme to share the road map with the 20 participants. ASMINDO Jepara, Jepara’s Agency of Industry and Trade and its Regional Development Agency also shared their thoughts in the presentation about the importance of networking in order to make use of the free trade area. At the end of the day, the Furniture Value Chain research team presented an update on project activities for December 2009 to April 2010.
On the second day of the workshop, the wood producers association discussed wood material issues, particularly in Jepara. Perhutani described a timetable for wood material production. Representatives from Indonesia’s export development centre (PPEI, Pusat Pengembangan Ekspor Indonesia) presented about opportunities to participate in trainings already planned. They also offered to subsidise a training programme for small-scale producers in Jepara after the workshop.

Training for small-scale furniture producers

Training on Product Quality Improvement and Financial Management

Based on the training needs assessment conducted earlier, the project team decided to hold the first training for small-scale furniture producers in April 2010. The 3-day training was about product quality improvement and financial management for small-scale furniture producers, and 27 participants actively participated.

The instructor for the first day was Agus Sunarya, an expert from a wood industry training centre, PIKA (Pendidikan Industri Kayu). Agus is also a furniture maker. He discussed the principles of furniture design that affected product quality and wood construction. The producers also showed how to make a simple drying kiln to improve wood product quality. The kiln consisted of a 2–3 m² iron or aluminium plate, with an electric fan to disperse heat through the wood in the kiln.

On the second day, Agus discussed product pricing for furniture products. He provided details on how to calculate the cubic metrage of any product, which is important to know the exact amount of material used to assess costs and to better calculate end-product price.

On the final half day, an instructor from BRI (Bank Rakyat Indonesia) led a session about financing and credit management for small-scale furniture producers. This introductory course taught participants what credit is, how to get a loan and how to manage it properly. The trainer also offered to follow up with participants at the local BRI branch, to consult with a bank officer and learn more about financing.

All the participants were excited and interested in the material given during the training. They were given certificates to formally recognise their participation.

Chain of custody training for small-scale furniture producers

The Jepara small-scale furniture producers association (Asosiasi Pengrajin Kecil Jepara or APKJ), which CIFOR helped establish in collaboration with the Indonesian Export Training Centre, held a chain of custody certification training on 27–29 July 2010. Many people in Japara are unaware of chain of custody certification. This certification is a tracking system that regulates wood from seedling to sales room. It includes information on where trees were planted and harvested, through the factories for processing and furniture making, until the wood is sold to the end user. By maintaining this chain, everyone in the industry can recognise legally obtained timber.

Thirty APKJ members participated in the training. They learned new ways of thinking about certified timber that they could share with their colleagues and other association members.
Why has chain of custody certification become a necessity? The benefits of certification are still not generally understood by furniture producers. Several major importing countries, including the EU, require the exporter to comply with one of a handful of certification systems. These include chain of custody and certification systems of the UK Forest Trust, and the Forest Stewardship Council. This means that Indonesian uncertified timber will increasingly only be used for products sold in domestic markets, with less added value for the industry as a whole.

Chain of custody certification will improve the efficient use of timber. When furniture producers must comply with chain of custody certification, they will have an incentive to save timber. Knowing the origin of the wood has the potential to reduce illegal timber use, which has been a key driver of deforestation in Indonesia and worldwide.

Training participants also visited a furniture manufacture, PT Mandiri Abadi, located in Bawu Mojo in Jepara. Because this company is certified by Forest Trust, participants could get a clear picture of how certification works in practice. Mandiri Abadi explained the processes in this certification scheme and how it affected their day to day activities.

At this time, these small-scale producers cannot legally obtain any certification. But participants understood chain of custody certification after the training and new information about how to use the wood they obtain more efficiently, and make better use of wood waste they once just discarded.

2nd Annual Meeting of FVC project

We held our second annual meeting of the Furniture Value Chain project on 8–9 June 2010. We informed the stakeholders, partners and the project’s Advisory Group about activities and general progress. Topics included: gender study and governance, institution survey, furniture industry structure and an online marketing portal. We also discussed the update of the atlas of Jepara furniture, the Jepara furniture business and tourism map, a catalogue for the association of small-scale producers, APKJ, plans for business-to-business meetings and APKJ progress. The project team reported on communication and dissemination activities (e.g. newsletter, book, movie) for obtaining better impacts and project financial management for better transparency.

The project members also discussed planning and budgeting for Year 3 of the project. The Advisory Group held a special session to evaluate work in Year 2 and to...
give feedback on planning for Year 3. The Advisory Group members said they were satisfied with the project accomplishments and impressed particularly by the online marketing portal and business and tourism maps. An exercise using the map and a short training on using the marketing portal for small-scale producers were conducted at the end of the meeting.

'Jepara Atlas' updated after 5 years

The project survey conducted in 2005 estimated 15,271 furniture enterprises existed in Jepara (Roda et al. 2007). In 5 years, the furniture market has changed substantially, both nationally and in Jepara. To identify these changes, the Furniture Value Chain project conducted a second assessment of Jepara furniture enterprises in April–June 2010.

Two stages of data collection were applied in order to capture furniture industry dynamics. Methods applied were spatial census taking and survey sampling.

During the first stage of spatial census taking, geographic positions of all furniture enterprises were marked using a Global Positioning System (GPS) tool. We defined a furniture enterprise to include workshops, showrooms, ironmongeries, log parks, sawmills, wood-drying kilns and warehouses. After taking the census over 6 weeks, we identified 11,981 furniture enterprises distributed across Jepara District (Figure 2).

We counted 11,597 independent enterprises and 384 integrated enterprises. Independent enterprises, such as workshops or sawmills, focus on specific activities. Integrated enterprises are business units that integrate 2 or more activities, e.g. workshop and showroom, log park and sawmill, etc. (Table 2).

The number of furniture enterprises has decreased by 20% within 5 years, between 2005 and 2010. The greatest decline is in the workshop category which dropped by 35%. Our 2005 study recorded 12,763 furniture workshops of all scales in Jepara, while this recent census recorded only 8,289.

The second stage in data collection was survey sampling. We gathered more detailed information on 2,000 furniture enterprises in Jepara, 17% of the total. We selected proportionally from each category then randomly within each category. The purpose of the survey was to estimate the amount of wood consumed by scale of business and type of product being produced.

Survey conducted shows that 98% of furniture workshops in Jepara are classified as small-scale businesses, 1.9% are medium-scale and 0.1% are large-scale. Small-scale workshops consume 99.27 m³ of logs per year, medium-scale businesses consume 282 and large-scale ones consume 1,115 m³. We estimate that the Jepara furniture industry consumes 863,147 m³ of logs in a year. The types of wood consumed include mostly teak, mahogany and rosewood, with some alternative woods including jackfruit, mango and coconut.

Most workshops, 89.5%, produce indoor furniture; 7.8% produce outdoor furniture. The remaining workshops produce carvings, handicraft and calligraphy.

The making of Jepara's furniture tourism map

The carving town of Jepara

Jepara District has long been known in the field of carving, as its nickname ‘the carving town of Jepara’ attests. Excellence must be the foundation in Jepara to compete with surrounding areas. Because of its location, off the beaten tourism track in Java, Jepara must work hard to attract shopping tourists. Jepara furniture production has slowed in recent years, in part because of the depletion of raw material, wood. The local government has taken steps to bring back the glory of the furniture industry and artisanal carving. The map of enterprises is one of those efforts.

In order to support the atlas of Jepara furniture study, Furniture Value Chain project members have used spatial data, both their own and data collected from relevant authorities, including BAKOSURTANAL at

Table 2. Furniture enterprise types in Jepara

<table>
<thead>
<tr>
<th>Type of business</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent enterprises</td>
<td></td>
</tr>
<tr>
<td>Logpark</td>
<td>726</td>
</tr>
<tr>
<td>Sawmill</td>
<td>101</td>
</tr>
<tr>
<td>Kiln and dry (KD)</td>
<td>20</td>
</tr>
<tr>
<td>Workshop</td>
<td>8,080</td>
</tr>
<tr>
<td>Ironmongery</td>
<td>168</td>
</tr>
<tr>
<td>Warehouse</td>
<td>528</td>
</tr>
<tr>
<td>Showroom</td>
<td>1,974</td>
</tr>
<tr>
<td>Subtotal 1</td>
<td>11,597</td>
</tr>
<tr>
<td>Integrated enterprises</td>
<td></td>
</tr>
<tr>
<td>Logpark and sawmill</td>
<td>137</td>
</tr>
<tr>
<td>Workshop and showroom</td>
<td>78</td>
</tr>
<tr>
<td>Workshop and KD</td>
<td>71</td>
</tr>
<tr>
<td>Workshop and logpark</td>
<td>37</td>
</tr>
<tr>
<td>Workshop and warehouse</td>
<td>15</td>
</tr>
<tr>
<td>Other integrated business</td>
<td>46</td>
</tr>
<tr>
<td>Subtotal 2</td>
<td>384</td>
</tr>
<tr>
<td>Total</td>
<td>11,981</td>
</tr>
</tbody>
</table>
the central level, the district government of Jepara, Jepara’s BAPPEDA and the Tourism Department at district level. Besides being used for research purposes, it will be useful if the spatial data can be shared more widely. The district head of Jepara also expressed this wish, when he launched this project in Bogor.

Furniture tourism map

Although the Jepara carving tradition is well known, tourists who come to Jepara have had trouble obtaining Jepara furniture and seeing a range of types and quality. Such information is frequently requested by tourists at the Tourism Information Center of Jepara. The Furniture Tourism Map of Jepara can benefit both tourists and furniture makers, particularly small-scale producers. With the map, furniture producers across the district have the opportunity to interact directly with buyers. Outside the timber industry, Jepara district has other manufacturers that have been economic mainstays in the community. Although not the core of this tourist map, these business locations are included for the benefit small and medium enterprise development more generally in Jepara since most manufacturing in Jepara is at the small and medium scales.

How to use the map

Artisans and manufacturers in Jepara that do similar work generally group themselves in one location. It is easy to identify the products sold from these groupings (Figure 3). These groups include industrial centres identified by local governments as well as informal producer groups scattered throughout the district. However, usually in an area with a concentration of one group, several craftspeople from different product types can be found. For ease of use, the map will be divided into regions to show these groupings, with an index. In its presentation at the map, the areas that will be displayed sequentially according to their locations along the main axis road from Demak through Jepara to Pati.

A collective marketing portal for SMEs: can it solve the problem?

Markets bring together sellers and buyers. Online markets increase reach at little cost. A rigid interconnectedness has a relatively low adaptive capacity, and is thus vulnerable to collapse. Previous value chain analysis studies have found that SMEs in
Jepara are mostly interconnected with buyers through directed and hierarchical types of governing networks, which are centralised to either domestic brokers or exporters. Centralised networks are too brittle for SMEs to adapt to the new conditions. In 1998, furniture industries in this area experienced a massive collapse, threatening the sustainability of the economy and the environment. It suggested that decentralising the interconnectedness by giving SMEs more autonomy to govern within the value chain could improve resilience in the furniture industry sector in Jepara.

A collective marketing portal, www.javamebel.com, was developed as the follow-up, aimed at facilitating SMEs in Jepara to market their products collectively and link them directly to potential buyers, with domestic buyers as the main target market. This is part of the action research activities under the Furniture Value Chain project.

Action research is a learning effort to update our knowledge about the real world by exploring if the recognised problem can be solved using the action. The action is the hypothesis to be tested directly in a living laboratory. This portal was developed to test the hypothesis that decentralising the interconnectedness between SMEs and retail buyers can be done using internet communications technology.

Evaluating an action can be done either through verification or validation. Verification should check if the action solved the recognised problem according to our current knowledge; while validation should check if the action solved the right problem from the real world. The recognised problem might not reflect the right problem. The right problem usually comes to light after the initial action is taken. If an action is verified, then a valid action implies: ‘the recognised problem is the right one’. An adaptive action should be responsive either to verification or validation results. As an adaptive action, the portal was developed using a flexible approach to account for changing users’ needs in the future. We created a prototype in Joomla and VirtueMart, due to their ease-of-use and extensibility. In addition, both Joomla and VirtueMart are free and open source software under GNU/GPL licence, easing unrestricted application development.

Learn more about our work at
www.cifor.cgiar.org/furniture
www.youtube.com/watch?v=Mw6TOjiFzlqA