**C I N T R A F O R**

# Working Paper 110

**Forest Certification and Its Influence on the Forest Products Industry in China**

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**Executive Summary**

Forest certification is becoming an important issue within the forest products industry and also a new trend in forest products markets. Although forest certification was initiated to confront the severe deforestation of tropical rain forests, certified forests are unbalanced in geographical locations, with 60% of certified forests being located in North America and 36% in Europe in 2006. The end markets for certified forest products, especially certified wood products, are also concentrated in European countries (particularly the United Kingdom, Germany, Belgium and the Netherlands) and North America, because the price premium for environmentally friendly products is only available in these mature and value-added markets. In manufacturing, countries such as Germany, Italy, the Netherlands, Poland, United States, Brazil, Japan and China are competitive in the area of certified wood products.

China is attracting more attention for its increased use of certified timber in wood products manufacturing. In accordance with its leading status in traditional labor intensive manufacturing industries, the Chinese forest products industry has an advantage in low cost labor, convenient infrastructure, and favorable export trading policies. The number of Chain-of-Custody (CoC) certified companies, mostly wood products manufacturers, soared between 2004 and 2006, reaching 200 by the end of 2006. Certification of forest farms in China , however, has been relatively slow and difficult, with only four forests (less than 1% of all the FSC certified forest area in the world) having obtained Forest Management (FM) certification by 2006, representing a total area of 439,630 ha.

This study consists of two sections: a case study of a certified state-owned forest farm and its downstream wood products manufacturers located in Northeast China, and an email survey of all FM/CoC and CoC certified companies in China , including manufacturers, forest farms with wood mills, and traders. Unless mentioned specifically, FSC is the default forest certification program in China because of its widespread use within the country (to the virtual exclusion of all other certification programs).

### Case Study

Youhao Forest Bureau is currently the largest certified forest farm in China with two associated certified furniture manufacturers, Hualong and Huali factories, mainly supplying solid wood furniture for IKEA. The certification of Youhao's forest farms and the Hualong and Huali factories helped to maintain product orders from IKEA, which has committed itself to sourcing its wood materials from certified forests through the four steps of the IKEA Forest Action Plan (FAP). Although the high cost of certification determines that profits from certified wood products are often lower than non-certified wood products, both the forest farms and manufacturers view certification as a new trend in the forest products industry, and hope the niche market for certified wood products will grow in the future, assuring a higher price premium.

Governmental administration played an important role in the certification of Youhao through administrative commands and favorable policies. As a country with diverse forest resources, China 's central and local governments actively initiated forest certification, took part in the process of certifying two important state-owned forest farms, organized training projects on forest certification in several more state-owned forest farms after Youhao and Baihe's certification, and drafted the “Criteria and Principles of Forest Certification for China ”.

While these actions made certification favorable for state-owned forests, complicated forestry property rights reform and unstable tenure length represent significant obstacles to the certification of privately owned forests.

### Survey Results

A survey of all the FSC (CoC) certified companies in China was conducted to investigate the basic issues related to forest and chain-of-custody certification and their influence on the international trade of forest products in China. Although there are only 200 certified companies, a general pattern on this new trend within the industry was obtained. Out of the population of 200 companies, 41 usable responses formed the sample of certified companies, including 2 forest farms with wood mills, 31 wood products manufacturers, and 8 trading companies. Most of the certified companies in China are located along the eastern and southern coast of China , from Guangdong Province to Jiangsu Province . Nearly half of the companies (46.3%) are domestic private companies, and 29.3% are wholly foreign-owned enterprises. More than half of the companies (53.7%) have over 500 employees, indicating a labor intensive production process. Evaluated by annual sales, more than half of the companies (51.2%) achieved annual sales of more than US$13 million (RMB ? 100 million) in 2006, which can be viewed as medium to large sized companies.

*Product mix of certified wood products*

The mix of certified wood products made by survey respondents can be divided into ten major categories: indoor furniture and accessories, craft products, stationeries and toys, outdoor furniture and accessories, wood material, garden and BBQ tools, flooring, doors and windows, logs, pulp and paper, and others. Most of the certified wood products are small piece, uni-material, finished products. This is natural as large, mutil-material, semi-finished products would increase the complexity of production, management and the percentage calculation according to CoC requirements.

*End markets for certified wood products*

The two biggest export markets for certified wood products were Europe and the United States , accounting for 54.6% and 29.8% of exports respectively. The giant DIY chain stores such as Home Depot and B&Q are important retail markets for certified wood products. Furniture retailers, pulp and paper companies, public procurement by governments, and other users form a niche market for these products. A recent report showed that from 1999 to 2000, annual sales of all certified wood products by retailers in Britain increased from £351 million (1.8% of total forest products annual sales) to £629 million (3.4% of total forest products sales). No similar data was found for the United States .

*Certified wood raw materials*

The US is currently the most important source of certified wood raw materials for wood products manufacturers in China , with 24.9% of certified wood originating from the US . Other countries supplying certified wood raw materials are New Zealand (with 18.5%), Brazil (12.4%), and European countries (10.8%). Domestic forest farms in China supply about 14.5% of the raw material mix for domestic manufacturers. The species of certified wood is almost evenly distributed among conifer species, tropical broadleaf species and semitropical/temperate broadleaf species. More than half (56.4%) of the companies in China indicated that they are now facing a shortage of supply for certified wood raw materials.

*Cost and benefit analysis*

The costs and benefits of using certified wood products is inevitably the critical problem confronting all certified companies. The issue of profitability can be viewed from several different perspectives: the market share of certified wood products; the market growth rate; the increased cost of certified wood; the small price premium obtained for certified wood products; and the lower profit margin for certified wood products relative to non- certified wood products. The profitability of certified wood products will influence both the short-term and long- term marketing strategies of companies considering selling certified wood products.

The market for certified wood products in the world is relatively small, and the total sales of these products by all the certified companies in China were estimated to be around US$697 million. The market for certified wood products is growing, with nearly 39% of the sampled companies reporting that their sales increased about 22.7% between 2005 and 2006, while just 2.4% of companies' reported that their sales decreased. There are increased costs that contribute to the higher price of certified raw materials, including the cost of certification (both the initial evaluation and a semiannual audit fee) and the cost of production updating and management adjustment for certification. The increased cost of using certified raw materials is the most significant cost factor, with the

average price of certified wood being 22.3% higher than non-certified wood. The cost of certification varies dramatically between forest farms gaining forest management certification and wood products manufacturers obtaining CoC certification. The cost of certification for forest farms was reported to be about ten times higher than the cost of certification for manufacturers. The average cost of certification for all certified companies including the two forest farms was about $9,037 per year, while the average cost of certification without the forest farms was around $5,912 per year. However, it is important to note that the annual cost CoC certification is likely to decline over time as the initial adjustments in management and manufacturing practices that are required for certification are implemented and they become part of the routine operating procedures for the companies.

Certified companies obtained an average 6.3% price premium for certified wood products in European markets, a 5.1% price premium in the United States and a 1.5% price premium in Canada . About 24.4% of the companies reported that the profit margin for certified wood products was 6.7% higher than for non-certified wood products, while 39.0% of the companies reported a loss of about 5.6%. The profit margin for certified wood products is highly dependent on the price premium companies can achieve. A simple linear regression model was developed to estimate the profit margin based on the price premium. The regression model results suggest that as long as the price premium obtained for certified wood products exceeds 11% (relative to non-certified wood products), the profit margin for certified wood products will exceed that of non-certified wood products.

*Attitudinal evaluation on certification*

Certified companies expressed a positive attitude towards most of the survey statements regarding forest certification and its influence on the industry. Statements viewed positively included the belief that certification can help companies enter new markets (especially markets in Europe and North America); certification can help maintain a company's existing markets if new requirements on environmental issues are implemented; certification is helpful in enhancing the competitiveness and public image of companies; and companies were optimistic about the increased market share and profits that would be generated from selling certified wood products over the next two years.

This study focused on FSC certification in China because there were only four companies that had received certification from programs other than FSC (i.e. PEFC). Therefore, FSC is currently the dominant certification program in China for the forest products industry. The survey respondents were asked an open-ended question about their reasons for choosing FSC certification, and their reasons can be summarized into three main categories: specific requirements dictated by their buyers; specific strategies companies took for entry into new markets; and FSC's highly credible reputation.

*Current problems*

Some common problems that certified companies in China face relate to the cost and supply of certified wood raw materials. Lacking domestic accredited certification bodies not only increases the cost of certification, but also hinders the improved communication and training among foresters and manufacturers about certification issues.

Due to the supply shortage of certified wood, companies have to communicate with importers more efficiently to obtain reliable information about the origin and supply of certified wood from foreign countries. Although domestic forest farms are in the process of being certified, which may alleviate the dependence on imported raw materials to some extent, the complexity and ambiguity of the forestry property rights reforms being considered and implemented in China will slow the privatization and consolidation of local forests, and further impede the process of certifying private forests.