THE IMPORTANCE OF CHINA’S FOREST PRODUCTS MARKETS TO THE UNECE REGION
GENEVA TIMBER AND FOREST DISCUSSION PAPER 57

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Note

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Abstract

The Importance of China’s Forest Products Markets to the UNECE Region provides insights of China’s forest products markets and its importance to the UNECE region. China’s forest sector has been developing rapidly in the past decade. It is now the largest manufacturer of forest products in the world. China is an important trading partner for the UNECE region. It imported most of its raw materials from countries in the UNECE region and exported the final products to them. The trade between China and the UNECE region is essential to both of their forest products markets. This publication contains information about China’s forest products markets, forest resources, policies and institutions. It provides a socio-economics context.

Keywords

China, the UNECE region, forests, forest products, markets, trade, financial crisis, roundwood, sawnwood, wood-based panels, pulp and paper.
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Preface

While the UNECE region is the major consumer and producer of forest products, the major trading partner outside our region is now China. The three subregions of our region, i.e. Europe, North America and Russia and other CIS countries, conduct the greatest volume and value of trade within and between each other. However, China has accelerated into the third greatest consumer and producer of wood and paper products, behind Europe and North America.

In the forest sector, China and UNECE region are the two largest players in the world. The total value of world imports of forest products was over $253 billion in 2008. UNECE region contributed 75% of the value, and in second place was China with 9%. China is the world’s largest importer of roundwood, of which most if from tropical sources, and secondly from the UNECE region, especially Russia, but more and more from North America and Europe. In turn, China exports most of its wood products to Europe and North America. For example, most of China’s furniture exports go to the United States.

The trade between the UNECE region and China has consequences for traditional production and trade channels. China’s imports of roundwood, sawnwood, pulp and recovered paper for papermaking, have tremendous financial benefits for the UNECE region’s exports. The United States’ imports of Chinese furniture have benefited consumers, retailers and traders, but have had a negative impact on furniture manufacturing and wood suppliers to furniture makers in the United States.

This dilemma is the reason for providing this *Geneva Timber and Forest Discussion Paper*. Within this publication, readers will find the most recent statistics for China’s forest products consumption, production and trade. The analysis of these trends indicates that the trade is still escalating, despite the economic downturn experienced by the world in 2008-2009. Also presented is the socio-economic and policy context for these developments.

We benefited from having two Chinese speakers at our 2009 UNECE Timber Committee Market Discussions. They raised the interest of delegates for more information and analysis, who welcomed the production of this *Discussion Paper*. One speaker was the author of this publication, Ms. Xiaou Han, PhD student, Oregon State University, and student intern with the UNECE/FAO Timber Section, to whom I express my appreciation for her work with us.

Ján Kubiš
Executive Secretary
United Nations Economic Commission for Europe
1. Introduction

1.1. Trade of all goods and commodities

China has emerged as the world’s second largest exporter and third largest importer in recent years (graph 1.1.1). The value of trade has increased dramatically in the past decade. For example, in 2008, the total value of China’s imports was $1133.1 billion a ten-fold increase in ten years.

According to the data from China Customs, the four trading partners from whom China receives the highest value of imports are Japan, Korea, the US and Germany (graph 1.1.2). Japan is the single largest exporter to China, with trade dominated by electronics.

In terms of the forest products trade, China and the UNECE region are the two largest players in the world. In 2008, the total value of world imports of forest products was $253.3 billion, of which the UNECE region accounted for 75% (graph 1.2.1). China’s share alone of this trade was 9%. Outside the UNECE region, China provides more than one-third of the imports by all other countries.

1.2. Trade in forest products

In terms of the forest products trade, China and the UNECE region are the two largest players in the world. In 2008, the total value of world imports of forest products was $253.3 billion, of which the UNECE region accounted for 75% (graph 1.2.1). China’s share alone of this trade was 9%. Outside the UNECE region, China provides more than one-third of the imports by all other countries.
The total value of the world’s forest products exports in 2008 was $246.9 billion, with the UNECE region accounting for 83% of this total. China’s share was 8%, or just under half of the total exports from all the countries outside the UNECE region (graph 1.2.2).

Graph 1.2.2
The world’s forest products exports, 2008

Source: UN Comtrade Database, October 2009.

More than half of China’s forest products trade (imports and exports) took place with countries lying within the UNECE region. In 2008, China imported forest products worth $23.3 billion, with around 60% imported from the UNECE region. In the same year, the value of China’s forest products exports was $19.2 billion, with 60% exported to the UNECE region. (graph 1.2.3).

Graph 1.2.3
China’s forest products trade, 2008

Source: UN Comtrade Database, October 2009.

The UNECE region can be divided into three subregions: North America including US and Canada; the CIS and the 41 countries of Europe. Viewing trade figures by these subregions can help to give a more detailed perspective of the trade flows between the UNECE region and China. In 2008, within the UNECE region, North America was China’s largest trading partner in terms of both its forest products imports and exports. The major products that China imports from each subregion differ. China imported mainly pulp and waste paper from the US; industrial roundwood from the CIS region, and paper and pulp from Europe (graph 1.2.4).

Graph 1.2.4
China’s imports of forest products from UNECE region, 2008

Source: UN Comtrade Database, October 2009.

While China exports a similar range of major products to each subregion, the mix of products varies.

1 CIS: Commonwealth of Independent States (CIS), is a regional organization with 12 countries of former Soviet Union.
Furniture is China’s major forest product export. The total value of China’s furniture exports to the UNECE region in 2008 was $7.7 billion, with more than half (wood and non-wood) going to the US (graph 1.2.5).

Graph 1.2.5
China’s exports of forest products to UNECE subregions, 2008

Source: UN Comtrade Database, October 2009.

Trade between UNECE region and China is crucial to both of them. Thus, they should recognize the importance of their trading relationship.

This paper begins with a broad perspective of China’s socio-economic context and its impact on the forest products’ markets of China. The rapid growth of GDP and China’s large and growing population have created a great market potential for forest products. There follows a brief review of the forest resources in China after which the production, consumption and trade of major forest products are discussed. This latter forms the main chapter of this discussion paper. In addition, government policies are taken into consideration due to their influence on the macro-economy and forest sector. Lastly, the national and regional institutions focusing on issues and problems in the forest sector are listed.

2. Socio-economic context

2.1. GDP and population

China’s GDP grew rapidly in the decade from 1998, from $989.4 billion in 1999 to $4,400 billion in 2008 (graph 2.1.1). Economic growth reached double digit figures in the years 2006 and 2007. The rate of growth slowed in 2008, due to the global financial crisis, but, despite this, maintained an impressive 9% growth rate.

Graph 2.1.1
China’s GDP growth, 1999-2008


China is the third largest economy in the world, with a GDP of $4,326 billion in 2008 (graph 2.1.2). The US’s GDP was $14,204 billion, which ranked as the highest value in 2008 among the countries in the world. In 2008, the world’s overall GDP was $60,587 billion - China accounted for 7% of this total.

Graph 2.1.2
GDP of the six leading countries in the world, 2008

By the end of 2008, China’s population had surpassed 1.3 billion. In the same year, disposable personal income was $2271 - three times the level ten years earlier. The macro-economic environment indicates a great potential for continued rising consumption patterns.

2.2. The appreciation of the yuan and its impact on trade

From 1997 until mid 2005, the exchange rate between the yuan and the US dollar was pegged at 8.27 yuan. Due to the soaring trade gap between China and other countries importing from China, the yuan faced upward pressure of appreciation from China’s financial authorities. On 21 July 2005, the Chinese Government removed the peg and the yuan immediately rose against the US dollar with an exchange rate of 8.11 yuan/$. The yuan was then allowed to float against a basket of currencies within a margin of ±0.3%, which was relaxed to ±0.5% on 18 May 2007. Since then the yuan has continued to appreciate: on 10 April 2008, the rate was 6.992 yuan/$, the first time in more than a decade that the rate had fallen below 7 yuan. (graph 2.2.1).

GRAPH 2.2.1

Note: The exchange rate for each year is an average rate of the year. The exchange rate for 2009 is calculated based on the data for the first nine months.
Source: The People’s Bank of China, 2009

Since then the yuan has continued to appreciate, though more slowly. From July 2008, the rate has effectively been ‘pegged’ around 6.83 yuan/$. There is a domestic concern that the rapid appreciation and current high value of the yuan against all major currencies has harmed China’s foreign trade and ultimately the overall economy. According to media reports, many Chinese exporters, especially those along the southeast coast had become bankrupt during 2008.

2.3. The global economic crisis and its impact on China’s forest sector

The global financial crisis that began in 2008 has impacted heavily on China’s economy. China is one of the countries most actively participating in globalization. Exports make up the greatest part of its GDP. The global economic crisis has caused external demand to fall sharply. In addition, the snow disaster and the earthquake that occurred in parts of China in 2008 have adversely affected the country’s economy. As a result, the rate of increase in China’s GDP and the total value of its trade dropped considerably in 2008.

The global economic crisis negatively affected China’s export markets for forest products in 2008. The US economy was one of those most seriously affected by the economic downturn. Given that the US is, by far, the most important export market for China’s forest products, it is not surprising that China suffered a fall in forest products exports. Domestic markets suffered too, as investment in housing in China slowed its advance in 2008 (graph 2.3.1).

GRAPH 2.3.1
China’s housing market, 1999-2008


The Chinese government responded by investing 4000 billion yuan (around 13.3% of China’s 2008 GDP) as part of a stimulus policy package in 2009. The package includes policies on increasing domestic consumption, improving economic structure and enhancing society well-being. One policy, for example, has been to reduce the taxes and loan interest rates for residential purchases, by around 30% (this includes single family houses, multi-family houses and apartments). This measure aims to enhance the performance of China’s housing market but it is too
early to judge its impact or success in stimulating demand.

2.4. The role of the forest sector in China’s economy

In 2008, the total production value of the Chinese domestic forest sector was $206.1 billion, an increase of 14.5% over 2007. It represents 4.8% of China’s GDP. From a long-term perspective, the forest industry is of growing importance to China and this is reflected in its increasing share of GDP (graph 2.5.1).

GRAPH 2.5.1
The proportion of forest production value in GDP, 2000-2008

Source: State Forestry Administration, P.R.China, 2009.

Forestry is critical in helping China to implement its sustainable development strategy. Forests occupy an important position in the eco-system. Forests are especially important to China’s western development programme. Forests have a huge capacity for carbon storage. They can help to counteract growing carbon emissions and thereby help to mitigate the effects of climate change.

Furthermore, forestry also has the potential to meet socio-economic objectives. As a result of the economic crisis, millions of workers who lost jobs in the cities have returned to their rural villages. There is now increasing pressure on jobs in such rural areas. The forest sector is seen as a means of creating jobs and to enhance rural incomes. In support of this, the Government has implemented policies and incentives to encourage this change. These policies will be discussed in more detail in a later chapter. There is already evidence that many unemployed peasant workers are beginning to turn to forest farming.

3. Forest resources

3.1. Forest area

The Seventh National Forestry Resources Inventory, beginning in 2004 and ending in 2008, recorded the forest area of China as 195.5 million hectares, including 119.7 million hectares of natural forest, equivalent overall to 20.4% of the land area of China. The overall forest area has increased by 20.5 million hectares since The Sixth National Forestry Resources Inventory (1994-1998). China has, therefore, the fifth largest forest area of any country in the world. The area of plantations in China, which is 61.7 million hectares, is the largest anywhere in the world.

While these figures are undoubtedly impressive, in relation to China’s population, the per capita forest area in China is only one quarter of the world average. Also, the percentage of forest cover in China is only two-thirds of the world’s average, placing China 139th among the countries of the world, on this measure. In addition, the forests are unevenly distributed (figure 3.1.1). The percentage forest cover ranges from 34.3% in the eastern region, 27.1% in the central region, 12.5% in the western region to only 5.9% across the five provinces in the northwest which together make up almost one-third of China’s land area. There is additionally a need to improve the management of the country’s plantations and to enhance the environmental contribution of the forests as important eco-systems.
3.2. Forest categories

There are different ways to categorize forests, depending on the particular characteristics being examined. The Sixth National Forestry Resources Inventory divides the forests by ownership, use, age and species group.

According to The Sixth National Forestry Resources Inventory, 42.5% of the China’s forests are state-owned while 57.6% are collective-owned, in terms of the ownership of the land on which the forests grow. As for growing stock, 42.2% of the forests are state-owned, 37.5% are collective-owned while the remaining 20.3% are privately-owned.

One common way to categorize forests is by the different uses (graph 3.2.1). The forests can be divided into four groups: protective forests; special purpose forests; commercial timber forests and fuelwood forests. Protective forests are planted mainly to guard against flooding. Special-purpose forests serve for scientific research and environmental protection. The timber forests are sources of industrial roundwood and non-wood forest products and the fuelwood forests provide wood for fuel.

Among the arboreal forests, i.e. excluding shrub and bamboo forests, commercial forests occupy the largest area in percentage terms - the 78.6 million hectares accounting for more than half of the total forest area in China. The area of protective forests is the next largest, accounting for more than one-third of the forest area.
In terms of broad age groupings, the forests can be divided into young growth forests; semi-mature forests; near-mature forests and mature forests, among which young growth forests and semi-mature forests account for 67.9% of the total forest area. In terms of species groups, oak, Chinese red pine, fir, birch and larch are the five dominant species in China’s forest area. Taking usage into consideration, *Populus* (poplar) is also a major genus (State Forestry Administration, P, R, China, 2009).

3.3. Forest plantation and management

3.3.1 Forest plantation

In the summer of 1998, China suffered massive flooding along the Yangtze, Songhua and Pearl Rivers. The floods killed thousands of people, left 14 million homeless and caused $26 billion of damage. While sustained heavy rainfall was the principal factor, the effects were more severe because of deforestation. Forests had been cleared and converted to farmland but without the forest, there was less control of water runoff.

In response to the disastrous floods of 1998, the Chinese Government introduced a policy in 1999 to return much of the low quality farmland to forest. In 2001, the State Council approved the plan for the six key forestry projects in China, which includes: (1) National Forest Protection Project; (2) “Grain for Green”; (3) The Three-North (northeast, north and northwest China) Protective Forest Programme; (4) Beijing-Tianjin Sand Source Control; (5) Wildlife Conservation and Nature Reserve Construction; and (6) Fast Growth Plantation Programme.

China’s forest area expanded rapidly from 2001 because of the effect of these policies (graph 3.3.1). Forest planting reached a peak in 2003, which was more than 80% higher than 2001 levels. From 1990 to 2000, the average annual area planted in China was 1.99 million hectares, and during the period 2000 to 2005 it averaged 4.06 million hectares. During 2008, 4.77 million hectares of forests were planted. These rates far exceed any other country (State of the World’s Forests, FAO 2009).

The Chinese Government required every citizen between the ages of 11 and 60 to plant one to five trees on Arbor Day (March 12).

The policy of afforesting farmland was not universally welcomed, however. Opinions on the wisdom of the policy to expand the forest area varied widely, with some experts and scholars claiming that the reduction of farmland had resulted in food supply reductions. Many others held a contrary view. Reacting to this situation, the Chinese Government began to relax the policy of returning farmland to forests. The quota for 2004 was reduced significantly and since then the annual plantation area has declined. In 2006, it fell to 2.7 million hectares, the lowest level for 10 years.

3.3.2 Forest management

The forest sector’s future growth depends on the forest resources and how well they are managed. Accordingly, China is striving to enhance the overall quality and quantity of its forest stock by the kinds of measures described in section 3.3.1. Managing its forests effectively is seen as key if the forest sector is to achieve sustainable development. Returning farmland to forest along with the other key projects has already achieved a measure of success. The natural forests in the upper reaches of the Yangtze River and Yellow River are no longer being logged and protective forests have been planted along the midstream and downstream sections of the major rivers in China. Regulations are in force protecting young forests, natural forests and preventing the important protective forests from being logged. Significant areas of fast-growing and high yielding plantations have been established.

In 2003, China launched a reform of its collective forest tenure. The aim was to encourage more individual
responsibility and stimulate greater involvement in forest management, reducing the share of collective management.

Under these reforms, private individuals may now ‘own’ the collective forests by signing legal contracts and receiving authorized forest certificates. This confers to the new owners the right to utilize the forest lands for 70 years. More rights such as transfers and mortgage are authorized to the individuals as well.

Until now, the collective forests have tended to be managed poorly compared to privately owned forests. Collective forest farmers have tended to harvest more and invest less. In contrast, when the forests have become privately owned, the forest farmers have planted more trees and taken a more long-term view in managing their forest land (Xie and Berck, 2009).

4. Wood and paper products

4.1. Overview

The Chinese forest products industry was influenced directly by the macro-economic developments of 2008. To stimulate domestic demand and aid the development of the forest and forest industries sectors, the Government invested $14.5 billion (100.7 billion yuan), an increase of 26.8% compared with 2007. Investments were made to facilitate projects such as natural forests protection and forest sector infrastructure improvement. One result of the Government stimulus was that China’s forest product outputs continued to rise strongly in 2008, by over 23%, even more strongly than in 2007 (graph 4.1.1).

China has become the largest global furniture exporter in recent years, having overtaken Italy, the previous holder of this title, in 2005. Chinese furniture manufacturers obtain much of their raw materials from the UNECE region, especially from the US, as well as from Europe and the CIS, and then export the final products back to the region. China’s furniture industry relies heavily on exports: more than half of China’s furniture exports (wood and non-wood) go to the US. Therefore, the economic situation in the US has had a direct impact on Chinese furniture manufacturers. The growth in exports of wood furniture slowed during 2008 (graph 4.1.2).

The growth in production of sawnwood and panels also slowed in 2008 (graph 4.1.3). The production of plywood even decreased slightly, by 0.6% to 35.4 million m³, compared with 2007. The major reasons were the increasing price of raw materials and lower export demand.
Most of China’s production of wood and paper products is destined for the domestic market. With 1.3 billion people and a rising middle class, China’s consumption of wood and paper products is growing (graph 4.1.4). However, growth slowed in 2008 and, according to early indications, slowed further in 2009.

The decline in roundwood imports from Russia meant that China’s growing wood demand had to be met from other sources. China’s growing demand for wood imports resulted in a wood fibre shortage in 2008, part of which was made up by smaller diameter domestic logs, at a cost lower than imported Russian logs. In addition, China imported larger amounts of sawnwood from Russia and Canada to help fill the log void. China’s sawnwood imports in 2008 reached 7.1 million m$^3$, increasing by 8.7% over 2007.
Plywood exports increased significantly over the period 2002 - 2007 (graph 4.1.6). Over the same period, China moved from being a net importer to a net exporter due to the expanding capacity of domestic production. However, in 2008, this rising trend was interrupted. For the first time, for example, China’s exports of plywood to the US decreased, by 38.9%.

In spite of a large production of domestic industrial roundwood, China’s appetite for industrial roundwood has been growing every year (graph 4.2.2), with the result that there has been a widening gap between domestic supply and demand. Experts have predicted that this gap will extend further.

To meet the market demands as well as accomplishing environmental protection plans, the Chinese Government implemented a series of policies and projects. One, which has been mentioned already was the policy of returning low quality farmland to forest, implemented in 1999. Significant areas of farmland were converted to forest every year. For example, in 2003 more than 3 million hectares of forest were planted on farmland. The government then carried out the six key forestation projects. One of the projects focused on increasing the plantations of fast growing and highly productive forests. It is likely that those policies and projects were responsible for driving up industrial roundwood production after 2000.

China has increased imports of industrial roundwood to fill the supply gap (graph 4.2.3). More than 70 countries around the world export industrial roundwood to China. Russia, China’s northern neighbour, is the largest supplier of industrial roundwood. Between 1993 and 2006, Russia exported 112.1 million m$^3$ of industrial roundwood to China. The value was $8.4 billion, representing 38% of China’s total industrial roundwood
imports, by value, over that 14 year period. In 2008, the volume of industrial roundwood exported from Russia to China was 18.7 million m³, which is 63.1% of China’s total imported volume of industrial roundwood in 2008. Papua New Guinea, New Zealand and the Solomon Islands also play important roles as suppliers of industrial roundwood to China. During the first half of 2009, China increased rapidly imports of industrial roundwood from New Zealand. If this trend continues, this might challenge Russia’s place as China’s principal supplier of industrial roundwood. While Gabon did not rank highly as a supplier of roundwood to China in terms of volume, when it comes to value, Gabon was China’s second largest source of industrial roundwood imports due to the high-value roundwood it exported to China.

**GRAPH 4.2.3**

*China’s imports of industrial roundwood, 1999-2008*

![Bar chart showing imports of industrial roundwood from 1999 to 2008, with a decrease in 2000 due to the National Protection Policy.]

Sources: State Forest Administration, P.R. China, UN Comtrade database, 2009.

Until 2001, most roundwood imported into China was hardwood. This reflected a lack of hardwood species among China’s forest resources, but also that demand for hardwoods in furniture manufacture had tended to be high. The introduction of the National Forests Protection Policy in 1998 resulted in a dramatic reduction in roundwood production from China’s natural forests from 2001 onwards. As the majority of those natural forests consist of softwood species, domestic softwood production declined. To overcome this, China increased imports of softwood industrial roundwood to the extent that these have now surpassed hardwood imports, certainly in volume terms, if not in absolute value.

The success that China’s manufactured wood products sector has achieved in the last ten years means that demand for industrial roundwood has increased rapidly. The only way to meet this demand has been by increasing quantities of imported industrial roundwood to supplement the limited domestic supply. China depends heavily on imported industrial roundwood from several major sources and the market is increasingly price-sensitive. How long China can continue to rely on imported feedstock for its burgeoning wood processing sector is an open question. In the longer term, this could well become the crucial issue for China’s forest sector market development.

**4.2.2 Sawnwood**

The production of sawnwood in 2008 was 28.4 million m³, 75% higher than in 1999 (graph 4.2.4).

**GRAPH 4.2.4**

*China’s sawnwood production, 1999-2008*

![Line chart showing sawnwood production from 1999 to 2008, with a marked increase in 2006 followed by a steady increase.]

Source: State Forestry Administration, P. R. China, 2009.

With the exception of 2000, when China experienced a marked decrease in sawnwood production, the trend has been steadily upwards. The decrease in production in 2000 was probably caused by the National Protection Policy, which reduced domestic supply of both industrial roundwood and sawnwood. In sharp contrast, a dramatic increase was observed in 2006 when sawnwood production increased by 38.9% over the level in 2005.

Just as with industrial roundwood, where there has been a gap between consumption and domestic supply, the same has been true of sawnwood. The construction of infrastructure drove up the demand for sawn softwood, while increasing furniture manufacture and building decoration called for more sawn hardwood. The fall in consumption from 1999 to 2000 simply reflects the lack of resources (graph 4.2.5). The gap was gradually filled by increasing sawnwood imports.
**The Importance of China’s Forest Products Markets to the UNECE Region**

**GRAPH 4.2.5**

*China’s sawnwood consumption, 1999-2008*

Imports of sawnwood have grown by 153.6% over the period 1999 to 2008 (graph 4.2.6).

**GRAPH 4.2.6**

*China’s sawnwood imports, 1999-2008*

Sources: State Forestry Administration, P. R. China, UN Comtrade database, 2009.

China imports both sawn hardwood and softwood to meet the needs of its wood processing sector. The balance between hardwood and softwood sawnwood has been dynamic over the years. The rapid development of furniture manufacturing and building decoration has ensured the stable growth of hardwood sawnwood imports. Traditionally, Indonesia was the largest supplier of sawnwood to China. Starting in 2005, China’s imports of sawn hardwood began to decline, largely due to a decrease in availability, particularly of tropical sawnwood. Under pressure from environmental conservation, tropical countries began to set limitations on logging from tropical forests. This had the effect of lowering the supply and raising prices of tropical sawn hardwood. At the same time, a difficult housing market in China reduced demand for furniture and decoration, the major end uses of hardwood sawnwood. In 2005, Russia took the place of Indonesia becoming the number one sawnwood exporter to China. Russia exports mainly sawn softwood to China. The US is the second largest exporter of sawnwood to China, exporting mostly sawn hardwood.

Overall, imports of sawnwood increased in 2008 by 7.6% compared with 2007. Sawn hardwood imports increased by around 30%, while imports of sawn softwood decreased. The decrease of sawn softwood imports was largely due to the global financial crisis and its impact in the US.

China is one of the world’s largest manufacturers and exporters of wood products and, as such, was not immune from the effects of the financial crisis that began in 2008 and expanded globally. Global consumption fell back sharply in all sectors. This led very quickly to a reduced demand for furniture and house decoration. With demand cut back, China’s inventory of those wood products accumulated, which resulted in cutbacks in production. As a consequence, many of China’s small and middle size manufacturers were forced out of business, resulting in a lower demand for sawn hardwood.

China is a large consumer of sawnwood, importing significant volumes of sawnwood every year to manufacture wood products, most of which will later be exported. Consequently, exports of sawnwood do not feature significantly in China’s trade (graph 4.2.7)

**GRAPH 4.2.7**

*China’s sawnwood exports, 1999-2008*

Sources: State Forestry Administration, P. R. China, UN Comtrade database, 2009.

**4.2.3 Wood-based panels**

The production of wood-based panels in China in 2008 was 94.1 million m$^3$, an increase of 6.5% over 2007 (graph 4.2.8). The growth rate of China’s wood-based panel production, however, is slowing down considering that production has been increasing annually at a level higher than 15% since 2002.
Particle board, fibreboard and plywood are the three major types of wood-based panels produced. Plywood is the leading type of panel and accounted for 37.6% of China’s production of wood-based panels in 2008. Fibreboard was the second, with the production of 29.1 million m\(^3\) in 2008. Particle board production, which accounted for only 12.1% of China’s wood-based panels in 2008, is expanding, whereas plywood production is falling. The reasons for this are tied essentially to raw material availability.

Plywood requires high quality logs, whereas fibreboard and particle board can be produced from lower quality logs. In the case of fibreboard, large amounts of fibre can even be recovered and re-used from waste wood products, such as furniture industry waste. As environmental pressures have increased, the governments of many countries have taken measures to reduce roundwood exports. This has restricted the supply of the logs that are needed for plywood production and this situation is likely to become more difficult in the future. Also, the reduction in plywood exports caused by the global financial crisis led to a decrease in production. Another reason for the growing popularity of fibreboard and particle board is that both materials can be recycled relatively easily, in comparison with plywood. This gradual move away from plywood fits well with China’s sustainable forestry policy by allowing forest and wood resources to be used more effectively.

Wood-based panel production has accelerated due to the Government’s encouraging policies and Government investments. Production almost doubled between 2002 and 2003, from 29 million m\(^3\) to 46 million m\(^3\). As a large manufacturer of furniture and other wood products, China consumes huge amounts of wood-based panels. So far domestic production capacity has kept pace with consumption. Therefore, there has not been very much need for China to import wood-based panels. China has even moved from being a net importer to a net exporter, in terms of plywood. Due to the impact of the global financial crisis, there is less demand for furniture and decoration, causing a drop in demand wood-based panels.

Imports of wood-based panels have not followed the same pattern as consumption. Imports started to decline in 2005 and continued this trend to 2008 and the first half of 2009 (graph 4.2.10).

Wood-based panel production has accelerated due to the Government’s encouraging policies and Government investments. Production almost doubled between 2002 and 2003, from 29 million m\(^3\) to 46 million m\(^3\). As a large manufacturer of furniture and other wood products, China consumes huge amounts of wood-based panels. So far domestic production capacity has kept pace with consumption. Therefore, there has not been very much need for China to import wood-based panels. China has even moved from being a net importer to a net exporter, in terms of plywood. Due to the impact of the global financial crisis, there is less demand for furniture and decoration, causing a drop in demand wood-based panels.
This has the effect of reducing imports of wood-based panels. This trend continued during the first half of 2009, except for the imports of particle board, which increased 18% compared with the first half of 2008.

In line with China’s growing production capacity for wood-based panels, there has been an increase in exports. Exports of wood-based panels increased dramatically in 2004, consisting mostly of plywood exports which doubled in volume (graph 4.2.11). Plywood has maintained its position as the principal wood panel to be exported though, in recent years, MDF and hardboard have started to play an important role in China’s exports of wood-based panels.

4.2.3 Furniture

The modern furniture industry originated in western Europe and North America. Traditionally, countries such as Italy, Germany, Canada, the US and France have all been major manufacturers and exporters of furniture. However, due to the labour-intensive nature of wooden furniture manufacture, production has moved gradually to countries where the cost of labour is relatively lower.

As a developing country with plenty of low cost and skilled labour, China has become highly competitive in the global furniture market. It has emerged as one of the largest manufacturers and exporters of wooden furniture. In 2005, China exported $13.8 billion worth of furniture, surpassing Italy to become the largest supplier in the global furniture market.

The total value of China’s furniture exports was $27.6 billion in 2008, about one-quarter of which was wooden furniture (graph 4.2.12). Wooden furniture was the major type in overall furniture exports, although it increased by only 2.8% compared with 2007. Exports of wooden furniture during the first eight months of 2009 totalled $4.5 billion, a slight decrease compared with the same period in 2008. The rapid advance in China’s furniture exports witnessed since 2002 has been curtailed slightly as a result of the global financial crisis. The continued appreciation of the yuan has added to the difficulties China faces in its export markets in general.

Adding to China’s problems in the furniture export market is its heavy dependence on the US market. To avoid this it will be critical for China’s furniture industry to develop new markets in both Europe and Asia. Russia, for example, could provide a valuable export market in future. In Russia, the demand for imported furniture has risen continuously due to the reconstruction of its Far East Region, where there is currently a lack of domestic furniture production. Chinese furniture, which offers a major competitive advantage through lower prices, is becoming a favoured choice for many Russians.

4.3. Paper products and woodpulp

4.3.2 Paper and paperboards

China’s paper industry has developed rapidly since the Reform and Opening Up Policy of 1978. The increase in manufacturing capacity accelerated during the ten years to 2009. According to data collected by the China Paper Association, in 2008 there were 3,500 paper product manufacturers in China. The total production of paper and paperboard in 2008 was 79.8 million metric tons (graph 4.3.1). Production maintained strong growth in the period 2000-2008, averaging 12.8% annually.
China’s consumption of paper and paperboard in 2008 was 79.4 million mt, an increase of 8.9% over 2007 (graph 4.3.2). Per capita consumption was 60 kg, which is 5 kg more than in 2007. The average annual growth rate in consumption of paper and paperboard between 2001 and 2008 was 12.5%.

As China’s capacity to produce paper and paperboard has expanded, it has scaled back imports correspondingly (graph 4.3.3). It appears that this trend will continue: imports in 2008 amounted to 3.6 million tons as opposed to 4 million tons in 2007.

At the same time, China has steadily increased its imports of recovered or waste paper, which has become an increasingly important raw material in manufacturing paper products. Another factor that has led to increasing waste-paper usage has been the growing environmental awareness among the Chinese people. This has encouraged greater recycling and re-use of waste paper. The US and EU are the major sources for China’s imports of waste paper.

China is also an exporter of paper and paperboard products. In 2008, China’s exports of paper and paperboard were 4 million tons, a decrease of 12.6% compared with 2007 but this figure still surpassed imports. From 2000 to 2002, exports were modest. It was not until 2003 that exports increased dramatically. Since then, exports have grown significantly though, in common with many forest products, 2008 saw a dip in exports -- a reflection again of the pervasive impact of the global financial crisis.
4.3.2 Pulp

The production of pulp in 2008 at 64 million metric tons, was 8.1% higher than in 2007 (graph 4.3.5). Since 1999 there has been a steady expansion of pulp production though, by 2008, the rate of growth was beginning to slow.

![Graph 4.3.5: China’s pulp production, 2000-2008](image)


The consumption of pulp has increased in line with the increases in paper and paperboard production (graph 4.3.6). China’s consumption of pulp in 2008 was 73.6 million tons, of which 60% was produced from waste paper. The balance has been made up from domestic pulp production, supplemented by imports.

![Graph 4.3.6: China’s pulp consumption, 2000-2008](image)


In 2008, China imported 9.5 million tons of pulp, an increase of 12.7% over 2007 (graph 4.3.7). The pulp imports also increased rapidly in 2009 due to the recovery of China’s domestic demand of paper products.

![Graph 4.3.7: China’s pulp imports, 2000-2008](image)


In February 2009, China’s imports of pulp were 1.2 million tons. This was the highest monthly amount ever recorded in terms of China’s pulp imports. Part of the reason for this may be that companies have taken advantage of falling pulp prices to import higher amounts of pulp at a low price and have stockpiled it for future production. Canada is the major source for China’s pulp imports.

Compared with its imports, China’s exports of pulp are insignificant (graph 4.3.8). In 2008, the best year to date, China’s pulp exports were less than 100,000 tons. China’s pulp production is largely consumed by its domestic paper products manufacture.

![Graph 4.3.8: China’s pulp exports, 2000-2008](image)

5. Policies

5.1. General government economic policies

In 1954, China implemented a planned economy as the principal element of its economic framework, with the Government itself directing the development of the economy. The disadvantages of this approach soon emerged, however, and the Chinese Government realized the planned economy model needed to be changed and that the market had to be allowed to play a stronger role in the economy.

In 1978, with the launch of the Government’s Reform and Opening-up Policy, China started to move away from a planned economy towards a market economy and began to relax its controls on both markets and production. Although the government still exercises a degree of control over most of the resources and resource-based industries, the economy has moved markedly towards the free market.

Another aspect of this policy has been the opening up of China’s market to global trade. Before 1979, trade formed only a small part of China’s economy. The opening-up policy, which started from the south coast area centred on Shenzhen, strongly encouraged foreign trade and investment. In 2000, China joined the World Trade Organization. This was a major step that China took to become more actively involved in the world economy and to accelerate the pace of its globalization.

It is clear from the data presented in this paper that China’s economy developed rapidly following the adoption of the market economy model. As a large country that has transformed its economy over a relatively short period, it has experienced difficult times during the process. In 1993, inflation occurred because of China’s overheated economy and this was especially true of the housing market. This resulted in the temporary disruption of the economy. In these circumstances, China resorted to macro-control measures to regulate China’s market economy. These included 16 specific measures. After the Government raised both loan interest and deposit interest rates twice consecutively in 1993, the economy started cooling down and was back on track to a period of more stable growth. There was a repeat of the situation in 2004 and macro-control measures were used again to regulate the overheated economy. Although the measures taken by Chinese Government in 1993 and 2004 were effective, economists have pointed out that since China’s economy has become much more complex, government must be careful when using macro-control measures in the future. While it is efficient in the short-term, there is a possibility, from a long-term perspective, of upsetting the market economy if such measures are not used prudently.

The global economic crisis starting in 2008 also largely influenced China. To maintain its stable economic growth, the Chinese Government launched an economic policy package to stimulate consumption. Both the deposit and loan interest rates were reduced. Taking the one-year deposit interest as an example, it was reduced to 2.52% from a previous 3.6% in 2008. Another feature of the economic package was the Chinese Government plans to invest 4,000 billion yuan by the end of 2010 on projects to improve infrastructure, to promote ecosystem conservation and to enhance employment.

5.2. Policies specific to the development of China’s forestry

The major objectives of China’s forestry programmes are to improve the quality of its forest ecosystems and to meet society’s growing demands for forest products and services. To achieve these goals, a range of projects and policies have been implemented, some of which have been described earlier. This section provides a summary of the main measures that have been undertaken.

Source: Mr. S. Wu, 2009.

After the 1998 flood, the importance of the protective functions of China’s forests was fully recognized. Soon afterwards, the Chinese Government initiated the Natural Forest Protection Project to stop logging the natural forests along the principal rivers to prevent flooding. In 1999, the Government introduced a policy of restoring to forests, the low quality farmland that had been created in earlier decades by forest clearance. The loss of these
forests had resulted in severe soil erosion in some areas and was believed to have aggravated the flooding problems. It is also part of the six key forestation projects which were announced by the State Council in 2000. To enhance the efficiency of forest land management and utilization, forest tenure reform policy was launched in 2003, when ownership of the collective-owned forests was opened to individuals. Forest farmers have extended rights to their forests for 70 years, which is authorized by contracts with the Government.

The Government also supports the forest sector by investing and reducing tax. In 2008, the total invested in the forest industry was 100.1 billion yuan, an increase of 26.8% compared with 2007. Also, by the end of 2008, value-added tax was refunded entirely for forest products using wood residues. In addition, to increase exports that had been negatively impacted by the global financial crisis, the value-added tax rebate was increased by different percentages for over 100 types of wood products.

5.3. Corporate social responsibility (CSR)

Corporate social responsibility (CSR) has become an important issue for many companies, particularly in the context of globalization. Companies have recognized that, as well as running a cost-effective and efficient business, they also have responsibilities for the natural environment and for the society in which they operate. As one of the largest economies in the world, China also has been focusing attention of CSR issues. On 5 June 2008, The Fourth International CSR Forum was held in Beijing. CSR experts from China and other countries came to Beijing to discuss issues focusing on “The Economic Crisis and CSR”.

The future of the forest sector is dependent on the continued sustainable management of its forest resources. The forest sector is strongly placed to demonstrate a commitment to the environment. It is also well placed to be involved in the whole range of CSR issues, perhaps even more so than other sectors. China’s forest sector is responding well in terms of implementing CSR. For example, with encouragement from the Chinese Government, around 500,000 hectares of China’s forests had been FSC-certified by February 2008. Chain-of-custody certification has also developed quickly in China. In 1999 there were only four companies certified. By the end of March 2008, that number had risen to more than 500 companies. Many forest products companies are also implementing CSR activities covering social and economic areas but there are no clear data about.

6. Institutions

6.1. Major forestry institutions in China

The State Forestry Administration is the central agency responsible for China’s forestry activities. It was established in 1999 as the replacement for the Ministry of Forestry. There are 10 main mandates of the State Forestry Administration. They cover areas of policy making, plantation establishment, conservation and wood industry management.

Lying directly under the State Council, the State Forestry Administration of China has 11 departments that report to it. It also has different affiliated institutions such as industry associations, regional branch offices and press. “Greentimes” is one example of the press related to the State Forestry Administration. It reports news and policy changes relevant to China’s forest industry on a daily basis (excluding the weekends).

6.2. Education and training

Colleges are also important affiliated institutions of the State Forestry Administration. They provide education and training on forestry. These academic institutions play an important role in China’s forestry development.

Source: E. Pepke, 2009

The China Academy of Forestry is a comprehensive and public interest research institution affiliated to the State Forestry Administration. It has nine research institutes, four experimental centres and three research and development centres. Its main tasks are “to be principally engaged in forest research of applied sciences while conducting its due research of applied basic sciences, high and new technology, developmental research and research of soft (social) sciences; to address the scientific and technological issues that bear overall,
The research areas cover all forestry-related subjects. There are also universities located in different provinces of China.

7. Conclusion

China’s forestry has developed rapidly over the past 10 years. The total output of forest products in 2008 was more than three times the level of 1999. After the launch of the Reform and Opening-up Policy, trade increased tremendously. China has become the largest manufacturer and exporter of forest products in the world. Its raw material supplies such as roundwood, sawnwood and pulp has come to rely heavily on imports. With uncertainty over the availability of imports in the future and probable price increases, China is making efforts to meet its demand by increasing domestic supply and adopting new technologies.

China’s consumption of forest products is increasing in line with the growth of its GDP. As a country with a large and expanding population and increasing income, China’s forest products market still has great potential for still higher levels of consumption. It is a market that will undoubtedly continue to have a strong global impact.

8. References

Annex I. Major forestry institutions in China

State Forestry Administration, Beijing China, Email: WebMaster@Forestry.Gov.Cn, Website: www.forestry.gov.cn (in Chinese)

Chinese Academy of Forestry, Beijing China, Email: Webmaster@forestry.ac.cn, Website: http://www.forestry.ac.cn.

China National Forest Products Industry Association, Beijing China, Tel: (086)-010-84238194, Website: www.cnfperia.org.

Beijing Forestry University, Beijing China, Email: service@bjfu.edu.cn, Website: www.bjfu.edu.cn.

Nanjing Forestry University, Nanjing China, Email: interpro@njfu.com.cn, Website: www.njfu.edu.cn.

Northeast Forestry University, Ha’er Bin China, Website: www.nefu.edu.cn.
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Annex III. Countries in the UNECE region and its subregions

Europe subregion (EU*)
- Albania
- Andorra
- Austria*
- Belgium*
- Bosnia and Herzegovina
- Bulgaria*
- Croatia
- Cyprus*
- Czech Republic*
- Denmark*
- Estonia*
- Finland*
- France*
- Germany*
- Greece*
- Hungary*
- Iceland
- Ireland*
- Israel
- Italy*
- Latvia*
- Liechtenstein
- Lithuania*
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- Malta*
- Monaco
- Montenegro
- Netherlands*
- Norway
- Poland*
- Portugal*
- Romania*
- San Marino
- Serbia
- Slovakia*
- Slovenia*
- Spain*
- Sweden*
- Switzerland
- The FYR of Macedonia
- Turkey
- United Kingdom*

Commonwealth Independent States (CIS) subregion
- Armenia
- Azerbaijan
- Belarus
- Georgia
- Kazakhstan
- Kyrgyzstan
- Moldova
- Russian Federation
- Tajikistan
- Turkmenistan
- Ukraine
- Uzbekistan

North America subregion
- Canada
- United States of America
Some facts about the Timber Committee

The Timber Committee is a principal subsidiary body of the UNECE (United Nations Economic Commission for Europe) based in Geneva. It constitutes a forum for cooperation and consultation between member countries on forestry, the forest industry and forest product matters. All countries of Europe, the Commonwealth of Independent States, the United States, Canada and Israel are members of the UNECE and participate in its work.

The UNECE Timber Committee shall, within the context of sustainable development, provide member countries with the information and services needed for policy- and decision-making with regard to their forest and forest industry sectors (“the sector”), including the trade and use of forest products and, when appropriate, will formulate recommendations addressed to member Governments and interested organizations. To this end, it shall:

1. With the active participation of member countries, undertake short-, medium- and long-term analyses of developments in, and having an impact on, the sector, including those offering possibilities for the facilitation of international trade and for enhancing the protection of the environment;
2. In support of these analyses, collect, store and disseminate statistics relating to the sector, and carry out activities to improve their quality and comparability;
3. Provide the framework for cooperation e.g. by organizing seminars, workshops and ad hoc meetings and setting up time-limited ad hoc groups, for the exchange of economic, environmental and technical information between governments and other institutions of member countries required for the development and implementation of policies leading to the sustainable development of the sector and to the protection of the environment in their respective countries;
4. Carry out tasks identified by the UNECE or the Timber Committee as being of priority, including the facilitation of subregional cooperation and activities in support of the economies in transition of central and eastern Europe and of the countries of the region that are developing from an economic perspective;
5. It should also keep under review its structure and priorities and cooperate with other international and intergovernmental organizations active in the sector, and in particular with the FAO (Food and Agriculture Organization of the United Nations) and its European Forestry Commission, and with the ILO (International Labour Organization), in order to ensure complementarity and to avoid duplication, thereby optimizing the use of resources.

More information about the Committee’s work may be obtained by writing to:

UNECE/FAO Timber Section
Trade and Timber Division
United Nations Economic Commission for Europe
Palais des Nations
CH-1211 Geneva 10, Switzerland

Fax: +41 22 917 0041
E-mail: info.timber@unece.org
http://www.unece.org/timber
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- Forest and Forest Products Country Profile: Russian Federation: ECE/TIM/SP/18
- (Country profiles also exist on Albania, Armenia, Belarus, Bulgaria, former Czech and Slovak Federal Republic, Estonia, Georgia, Hungary, Lithuania, Poland, Romania, Republic of Moldova, Slovenia and Ukraine)
- Forest resources of Europe, CIS, North America, Australia, Japan and New Zealand: ECE/TIM/SP/17
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* signifies web only publication
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