

Trends in China's forest-related policies—from the perspective of the growing timber trade

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Abstract : This paper presents a short-term analysis of recent timber trends in China, focusing on timber markets and trade, and on forest-related policies. Firstly, trends in China's timber supply and demand are described highlighting the sharp increase in log imports, especially from Russia. Secondly, the key policy trends that have affected China's domestic timber market, including trade policy, forest conservation programmes, forest certification, land tenure and tax reforms, are outlined. Subsequently, the current state of Sino-Russia timber trade is surveyed, with special reference to the significant market growth in value-added *'made in China'* wood products based on imported Russian timber. Finally, the prospects of the timber market in China and the problems facing Sino-Russian trade are discussed.

Key words : China, forest policy trend, timber trade, timber consumption, Sino-Russia.

1 Introduction

With a population of around 1.3 billion people, the People's Republic of China is the world's most populous nation¹. China continues to enjoy the rapid economic growth it has experienced since the middle of the 1980s, and in 2001 it became the world's leading timber importer in terms of volume. Sharp increases in China's timber demand stand to significantly impact on world timber markets, particularly when the additional timber is sourced from outside the country. It is possible that such massive additional timber imports by China could accelerate forest loss and degradation in the world's key forest areas, including Russia and the tropics. With regard to international trade relationships, vastly increased imports of coniferous logs from Russia, the mainstay of the Japanese plywood industry, have already begun to make a considerable mark on the timber industry in Japan.

The capacity of China's forests to supply logs has dropped sharply in recent years, due directly and indirectly to the over-harvesting of natural forests, frequently occurring forest fires, unsustainable forest management practices of the past, as well as recently launched forest conservation programmes (Yamane 2001). In order to overcome the timber deficit, the Chinese government has enthusiastically promoted various kinds of new forest-related countermeasures such as large-scale tree planting projects and tax and land-tenure reforms aimed at enhancing the potential for domestic timber production and the efficient use of timber resources. However, these policies have not resulted so far in a

substantive achievement of their aims. Thus, the gap between domestic timber production and consumption has widened and timber imports have increased significantly.

The aim of this report is to discuss recent short-term timber trends in China through a review of the following three subject areas, based on information sourced from key documents, and from statistics and information collected in field surveys conducted in 2001 and 2002².

- Recent trends in China's timber supply and demand, highlighting the sharp increases in log imports.
- An outline of the key policy trends that have been affecting China's domestic timber market, such as trade policy, forest conservation programmes, forest certification, land tenure and tax reforms.
- The current state of Sino-Russia timber trade, including the significant development of an international market for Russian wood products *'made in China'*.

2 Summary of China's timber market and forest-related policies in 2001

China's timber market and trade in 2001 can be summarized as follows.

- (a) The volume of imported logs and sawnwood continued to increase steadily. This was mainly due to the following factors :
- Additional growth in overall market demand for timber as a result of large-scale national infrastructure development projects and national efforts to stimulate domestic demand.
 - The continuing decrease in the supply of large-diameter logs from domestic forests due to the im-

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¹ According to China's fifth national population census (November 2000), the total population is 1,265 billion (excluding Taiwan).

² Field surveys were carried out twice : 18-24 August 2002 in Beijing and Dalian, and 17-18 November 2002 in Beijing.

plementation of natural forest protection programmes (NFPPs).

- Burgeoning economic development, particularly along the Zhujiang and Yangtze River deltas (*i.e.* Guangdong and Shanghai), stimulating further increases in the consumption of sawnwood imported primarily from tropical regions. The imported sawnwood has been used mainly for furniture manufacture in the Guangdong area, and for interior decoration in the Shanghai area.
 - An increase in demand for imported tropical hardwoods for use mainly in plywood manufacture, to offset the shrinking domestic supply of veneer grade logs brought about by NFPP implementation.
 - An increase in the export volume of plywood, despite a decrease in the import volume. In 2001, for the first time the export volume of plywood exceeded the import volume.
- (b) Whilst there were no significant changes made directly to forest policies, their underlying principles were reinforced, and the official position with regard to forest conservation and sustainable forest management was enhanced through a number of related measures. Evidence of progress in these areas includes :
- Aggressive new fiscal policies, aimed at boosting the quantity and quality of housing, were introduced under the tenth five-year national plan, increasing timber demand for fittings and furniture.
 - In addition to housing policies, large-scale national infrastructure development programmes, such as the Great Western Development project and the Beijing Olympics project, have been generating considerable increases in timber demand.
 - Timber trade liberalization has progressed since China joined the World Trade Organization (WTO), with further tariff reductions on products such as plywood and veneer. In 2001, a new timber trade regulation on pest control was issued, though full implementation with regards to Russian logs was postponed for one year because of a lack of appropriate facilities both in Russia and China with which to implement adequate timber quarantine. After a year of negotiation, however, China and Russia have reached an agreement and commenced full implementation of the regulation, as described below in greater detail.
 - Recently launched forest conservation programmes such as NFPP and the 'grain-for-green' or Land Conversion Programme (LCP)³, have been gradually brought into effect with large capital investments both in 2001 and 2002. In early 2002, the government launched the plantation development programme, which through its integration with other existing forest conservation programmes (including NFPP

and LCP), has established six major forest projects aimed at balancing the needs of environmental conservation with the growing demand for timber.

- (c) Russian timber has dominated China's wood imports, accounting for 52 per cent of the total log imports in 2001. This figure is likely to have increased to 60 per cent in 2002. There have been no significant changes in the trends evident in the Sino-Russian timber trade, though the following features deserve mention :
- The main routes for timber import from Russia to China are still the inland border gateways such as Manzhouli, Erlianhot and Suifenhe. In 2001, transport by sea increased significantly, partly due to insufficient railway transport capacity.
 - Sino-Russia cooperation on Siberian forest development accelerated following a top-level meeting held between the two nations in 2000. Chinese-run logging and export operations in Russia have developed gradually amid rising private sector business opportunities involving Russian timber.
 - A crucial recent trend in the Sino-Russia timber trade has been the successful development of a '*made in China*' wood products industry based on Russian timber, both in terms of net production and export to the United States, Europe and Japan.

3 Recent key trends in the Chinese timber market and trade

3.1 Overview

Since the second half of the 1990s, China's total commercial log consumption has remained essentially unchanged at around 1.4 million m³, though consumption in the construction sector has increased (Table 1). However, shifts in the source of log supplies have been significant, with sharp increases in log imports to compensate for the sharp reduction in domestic log production that occurred after 1998. Domestic log production from natural forests has continued to decrease, mainly due to the rigorous implementation of NFPP. In 2001, the total domestic timber supply increased to 51 million m³ from 47 million m³ in 2000, due to greater log production from manmade forests.

Log imports have increased steadily since 1995, though the rate of increase has been particularly high since 1998. In 2001, the volume of logs imported into China exceeded those into Japan, reaching 16.86 million m³ or more than five times the volume in 1996. In 1999, the year that NFPP was launched, the volume of log imports increased an additional 2.2 times above the figure for the preceding year. Since 1999, the rate of increase has dropped slightly but remains relatively high, with an annual increase of 34 per cent in 2000 and 24 per cent in 2001. The volume of log imports in 2002 was initially estimated to have reached 20 million m³, though in reality the import volume by September 2002

³ See Yamane (2001) and CSFA (2002)

Table 1 China's wood supply and demand, 1996 to 2002.

		1996	1997	1998	1999	2000	2001	2002*
Supply	Surplus from previous year	3,947	4,262	3,815	3,957	4,190	4,135	4,050
	Domestic production	14,447	13,767	13,500	13,000	12,800	12,600	12,000
	Of which industrial wood	6,710	6,395	5,966	5,327	4,724	5,100	n.d.
	Total domestic supply	18,394	18,029	17,315	16,957	16,990	16,735	16,050
	Import	318	446	460	1,013	1,361	1,686	2,009**
	Of which coniferous	65	96	149	457	640	914	1,539
	Total supply	18,712	18,475	17,775	17,970	18,351	18,421	18,050**
Demand	Total domestic consumption	14,444	14,654	13,812	13,774	14,210	14,365	14,385
	Of which house-building	4,127	4,158	4,230	4,250	4,360	4,300	4,350
	Of which industrial production	10,317	10,496	9,582	9,524	9,850	10,065	10,035
	Export	6	6.3	6.1	5.8	6	6	7
	Total demand	14,450	14,660	13,818	13,780	14,216	14,371	14,392
	Surplus	4,262	3,815	3,957	4,190	4,135	4,050	3,658

Note: Figures are in 10,000 m³.

* All figures for 2002 are estimates for the period from January to September only, apart from ** which are actual data for the same period; n.d. = no data.

Source: Based on data from Chinawood (May 2002 and October 2002).

Table 2 Total consumption (domestic production plus imports) of major wood products, 1998 to 2001.

Item	1996	1997	1998	1999	2000	2001	2002*	2000/ 1999 (%)	2001/ 2000 (%)
Logs (total)	319	446	482	1,014	1,361	1,686	2,009	34	24
Logs (coniferous)	65	96	149	457	640	914	1,539	41	43
Sawnwood	94	133	169	276	361	406	442	35	11
Plywood	178	149	169	104	100	65	52	-4	-35
Fibreboard	34	46	57	80	102	107	95	28	6
Particle board	108	148	156	248	344	n.d.	n.d.	39	n.d.

Note: Figures are in 10,000 m³.

* All figures for 2002 are for the period from January to September only; n.d. = data not available.

Source: Based on official statistics from CSFA (2002) and Chinawood (February 2002 and October 2002).

had already exceeded this figure⁴. Based on the rate over the first nine months of the year, the annual import volume for 2002 is expected to have reached 25 million m³.

Whilst the imported volume of other wood products is not as large as for roundwood, imports for products such as primary sawnwood, fibreboard and particle board have all shown a gradual increase since 1996. Thus, for example, the import volume of sawnwood has increased

by approximately four times, and that of fibreboard by over three times in that period (Table 2). In contrast, the import of plywood has decreased since 1998, and in 2001 was only one-third of the volume imported in 1996. Despite this, the export volume of plywood has increased sharply in the same period, surpassing the import volume in 2001.

3.2 Timber consumption

(a) Wood consumption in 2001

Annual timber consumption in 2001 was estimated at

⁴ Source : *Chinawood*, October 2002.

Table 3 Major source countries of China's timber imports.

Species/country	2001	share	2002*	share	2002/2001 % change
Coniferous	9,419	54.96%	15,392	70.03%	63.40%
Russia	8,227	48.00%	11,722	53.34%	42.50%
New Zealand	708	4.13%	3,382	15.39%	377.70%
Broadleaf	7,720	45.04%	6,587	29.97%	-14.70%
Tropical	6,413	37.42%	4,782	21.76%	-25.40%
Malaysia	1,505	8.78%	1,544	7.02%	2.60%
Indonesia	1,138	6.64%	221	1.01%	-80.60%
Gabon	1,125	6.56%	878	3.99%	-21.90%
Temperate	1,180	6.89%	1,804	8.21%	52.90%
Russia	537	3.13%	676	3.08%	25.80%
Germany	392	2.29%	360	1.64%	-8.20%
France	143	0.83%	63	0.29%	-55.60%
USA	37	0.22%	48	0.22%	29.40%

Note: Figures are in 10,000 m³.

* All figures for 2002 are for the period from January to September only.

Source: Based on official statistics from CSFA (2002) and Chinawood (February 2002 and October 2002).

Table 4 China's recent key indices for housing construction.

Category	Index	Unit	City	Rural
Area of housing	Floor space per house	m ² /house	32.2	104.2
	Floor space per person			
	Floor space	m ² /person	20.4	
	Residential floor space	m ² /person	14.9	
	Living floor space	m ² /person	10.2	24.8
Housing stock	Gross floor area (GFA)			
	Floor space	million m ²	4,409	
	Living floor space	million m ²	2,232	
Housing flow	Annual construction of GFA			
	Floor space	million m ²	54.9	79.7

Note: Floor space includes common use space. Living floor space is defined as all residential floor space excluding kitchen and sanitary space.

Source: Based on data from Kamemura (2002).

over 250 million m³ (excluding non-commercial logs such as firewood fuel and building materials at the household level), equivalent to approximately 150 million m³ logs. Of this total consumption, 54 million m³ (21.6 per cent) were used for construction and decoration purposes (Zhu 2002). A further 27 million m³ (10.8 per cent) were used in furniture production. The consumption for paper accounted for 75 million m³, whilst the volume consumed through agricultural uses and rural housing construction amounted to 58 million m³ in total.

However, according to other reports, consumption in the construction and interior decoration sectors accounted for 69.9 per cent of total consumption, furniture manufacturing accounted for 11.6 per cent, and pulp and paper production consumed 8.2 per cent.

Whilst the detailed figures for wood consumption may therefore differ, it is certain that consumption for housing and construction constitutes a significant proportion of the total, between 21.6 per cent and 69.9 per cent.

(b) House construction

In 1999, the Chinese government abolished its traditional housing allocation system, giving way to a new home ownership system. At the same time the government began promoting housing improvement and reform policies focusing on encouraging private ownership of housing and upgrading housing quality. Key measures have included the sales of previously publicly-owned housing, promoting house construction with the target of 15 to 18 m² of floor space per person in 2010, and the development of institutional and financial services

Table 5 China's housing construction from 1950 to 2000.

Period	Housing construction, 100 million m ²	Average annual housing construction, 10,000 m ²
1950-1975	4.4	1760
1976-1985	9.2	9153.4
1986-1995	16.9	16894.7
1996	3.95	39450.5
1997	4.06	40550.2
1998	4.76	47616.9
1999	5.59	55868.9
2000	5.49	54859.8

Source: Kamemura (2002).

and arrangements such as personal loans and other types of bank loans for house acquisition.

These measures have made steady progress so far. The 80 per cent of publicly-owned urban housing that was made available for sale had all been sold to private owners by the year 2000, and markets for house buying and selling have opened to the public in almost all provinces and cities. Housing sales increased significantly after 1998 and exceeded 130 million m² in 2001, up from around 30 million m² in 1991 (Table 3).

In China's ninth five-year plan for house construction (1996-2000), the investment for housing construction in urban areas was 1,600 billion RMB, equivalent to 6 per cent of the national GDP. The total additional floor space built during the plan period reached 2,385 billion m², more than twice the initial target (Table 4). The floor space per city dweller reached 10.2 m² in 2000, exceeding the target 9 m² designated in the plan. House construction in rural areas was 646 million m², exceeding the targeted additional space of 56 million m², with rapid growth of housing-related investments. Due to this house construction boom in both urban and rural areas, the demand for wooden furniture and fittings has increased considerably, stimulating rapid growth in the production of wooden materials including plywood, fibreboard and particle board.

(c) Great Western Development

Although the additional volume of timber demand generated by the 'Great Western Development' project remains at this stage unclear, it is certain that the project, which came into effect with official approval from the National People's Congress in 2000, will have a major impact on the country's timber market. This top-priority national project aims to narrow the economic disparity between southeastern coastal areas and the western inland areas which face serious poverty-related problems⁵.

⁵ The target areas in the year 2002 total 17 provinces and autonomous regions, including Shaanxi, Ningxia, Gansu, Xinjiang Uighur, Qinghai, Sichuan, Yunnan, Guizhou, Tibet, Shanxi, Inner-Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hunan, Hubei and Chongqing direct control city.

The emphasis has been put on those projects which focus on infrastructure development and construction; the strengthening of ecological development strategies with special attention to forest conservation and the mitigation of desertification; the upgrading of industrial structures especially in state enterprises; enhancement of the sciences, technology and education; improving human resource development; and further economic reform and liberalization. The infrastructure development and construction projects incorporate various kinds of public works, including amongst others, the construction of a total of 350,000 kilometers of new road networks and a Qinghai-Tibetan railway line, as well as improvements to local railway lines; international airport development; and improvements to and development of new water facilities along the Yangtze and Yellow Rivers.

The Chinese government plans to invest around 300 billion RMB in newly launched infrastructure development and construction projects. In 2000, 43 billion RMB from national debt financing was invested in western China.

(d) Infrastructure development for the 2008 Beijing Olympics

Additional timber demand brought about by preparations for the 2008 Olympics will be substantial, especially in the area of public works. This includes not only urban renewal and the construction of new facilities in Beijing, but also the resulting construction boom of sport facilities, and the anticipated real estate boom throughout every province of the country. Work on the Olympics project will commence in 2003, with an investment of 280 billion RMB (about U.S.\$33.8 billion), including 180 billion RMB for city infrastructure, 17 billion RMB for stadiums and 71.3 billion RMB for environmental works (Zhu 2002).

3.3 Import trade in 2001

In 2001, China's imports of logs and sawnwood increased significantly due to strong domestic timber demand, while imports of plywood and veneer decreased sharply due to the dynamic expansion of the domestic plywood industry. Such trends appear to have con-

tinued in 2002.

Coniferous logs made up 55 per cent of total timber imports in 2001, whilst tropical logs and temperate hardwood logs constituted about 37 per cent and 7 per cent of the total, respectively. This dominance of coniferous logs in timber imports has been apparent since 1998. Prior to that, tropical timber accounted for the bulk of log imports, and as such it can be seen that the structure and composition of log imports has changed within the last few years.

Of the total coniferous log imports, Russian timber constitutes the greatest single component as it has in the past, with an 87 per cent share, though imports from New Zealand have increased gradually (Table 5). Malaysia, Indonesia and Gabon were the leading tropical log suppliers though China also imported a certain amount of tropical logs from Equatorial Guinea, Myanmar, Papua New Guinea and Cameroon. For temperate hardwood logs, Russia was the top supplier, supplying about 540,000 m³, and Germany was second, supplying around 400,000 m³. Log imports from the United States are still small but have increased in the last two years.

4 The state of key forest-related policies in China

4.1 Overview

There were no significant policy changes in the forestry sector in 2001. However, the State Forestry Administration (SFA), China's top governing body on forestry affairs, made preparations in 2002 to initiate two important tasks, the first being a draft decision on forestry development (with the final decision due to be issued by the State Council of China's central government in early 2003), and the second being a strategic study on sustainable development within the Chinese forestry sector. This study will outline a vision of key issues, strategies and approaches for the sustainable development of forestry over the next 50 years.

4.2 Trade policy

Timber imports are a key countermeasure to address the shortages in domestic timber production and trade (CSFA 2002). Since the 1980s, the Chinese government has actively promoted policies designed to open the country to foreign business and trade liberalization in a stepwise fashion and in accordance with global trends. The government has committed itself to eliminate non-tariff barriers by the year 2004 and all trade barriers on forest products have already been removed. Trade management regulations such as the granting of export permission, registration of import operations and official inspection of import and export products, have also been extensively lifted, and the emerging favorable circumstances make it easy for private business enterprises to enter into trading operations.

In 2001 and 2002 there were no significant trade policy

changes relating to the forestry sector. However as China formally joined the WTO in November 2001, further tariff reductions on most commodities came into effect as a result of various commitments made for entry into WTO, both in 2001 and in 2002. The average tariff in China decreased from 15.3 per cent in 2001, to 12 per cent in 2002, compared with 16.44 per cent in 1999⁶. From 1st January 2002, the tariff for plywood was reduced from about 15 per cent to about 10 per cent, while that of veneer was reduced from about 8 per cent to about 4 per cent. The half taxation policy⁷ directed towards small-scale, cross-border Russian timber trade operations remained unchanged.

On the grounds that log imports have been increasing substantially over the last few years and thus the risk of pest invasion has risen rapidly, the Chinese government issued a new log quarantine regulation in February 2001. The regulation requires the fumigation of all log imports and the issuance of a quarantine certificate by the exporting country on imports of logs with bark. For logs without bark, an inspection of the logs for pests and soil, and a quarantine certificate are requested at the time of clearing customs. With regards to Russian logs, the implementation of the regulation was postponed until the following year and China held working-level negotiations with Russia to resolve feasible means with which to address these matters. In September 2002 they reached an agreement. All Russian logs with bark attached which are imported via inland gateways between April and October should be treated by fumigation at treatment stations on the Chinese side of the border, under official Chinese supervision. In the case of marine transport, all logs imported during the same period should be treated by fumigation before entry into China. For logs without bark attached, China requests an inspection and quarantine certificate to be issued on the Russian side.

4.3 Forest protection and conservation

It can be concluded that the year 2001 was a milestone for forest protection and conservation policy change in China. The SFA initiated six key forestry programmes. Among them, the first five programmes were all related to forest protection and conservation. They are the NFPP or Land Conversion Programme (LCP), the 'Three-Norths' (Northeast, Northwest and North region) shelterbelt programme, the Yangtze River upper and middle reaches shelterbelt programme, a sand control programme around the Beijing area, and a wildlife conservation programme. These five programmes have all been implemented so far with billions of dollars of government investment each year.

The most recent of these projects, the plantation de-

⁶ The average tariff was 57 per cent in 1992, 42 per cent in 1994, 35.9 per cent in 1995, and 23 per cent in 1996.

⁷ This policy cuts the tax rate imposed on inland border trade by fifty per cent.

Table 6 Number of companies in China sourcing certified timber through a 'chain of custody' (CoC) system under Forest Stewardship Council (FSC) certification, as of 31st December 2001.

Provinces	Auditors			Major products
	SCS	SGS	SmartWood	
Liaoning	3	-	-	Fittings
Jiangsu	-	1	-	Furniture
Shanghai	-	1	-	Furniture
Fujian	-	2	-	Fittings
Hongkong	-	3	-	Furniture & fittings
Tianjin	-	-	1	Gardening equipments
Guangong	-	9	9	Furniture & fittings
Total	3	16	10	-

Note: SGS = Societe General de Surveillance, UK; SCS = Scientific Certification System, USA.

Source: Based on data from China Forest Certification Newsletter 2001(1), WWF-China and China Academy of Forestry.

velopment programme, was implemented in early 2002, and involves the establishment of a base resource of fast-growing and high-production forests to provide timber. The formal implementation of the project now covers 886 counties (cities and districts) in the following 18 provinces and autonomous regions: Hebei, Inner Mongolia, Liaoning, Jilin, Heilongjiang, Jiangsu, Zhejiang, Anhui, Fujian, Jiangxi, Shandong, Henan, Hunan, Hubei, Guangdong, Guangxi, Hainan and Yunnan. The general objective of the project is to develop 200 million *mu* (about 13.3 million hectares) of land for fast-growing and high-yield plantation forestry, with harvesting scheduled to begin in 2015, by way of afforestation and conversion of old forests. The implementation of the project will bring about additional domestic timber production, which is expected to meet around 40 per cent of the nation's timber demand through the sustainable felling of existing timber resources, and is eventually anticipated to achieve self sufficiency for China's timber requirements. The project will bring about a shift in the source of domestic timber production from natural to manmade forests. Moreover, this project is expected to provide a guarantee for the implementation of other key afforestation projects for ecological purposes, and will in the meantime absorb a significant proportion of the surplus workforce in the countryside and so assist in the adjustment of industrial structures and promote economic development in rural areas.

These six projects, involving 97 per cent of China's counties, are planned to eventually cover 76 million hectares.

4.4 Forest certification

The Chinese government attaches great importance to forest certification, and has made significant progress in this area since 2001 (Yamane 2001). The government set up the "Lead Group on Forest Certification Work in China" in July 2001. The World Wide Fund for Nature (WWF) initiated in May 2001 the "Working Group on

Forest Certification" and also funded a project at the Chinese Academy of Forestry (CAF). Also in 2001, the government commissioned a team to develop national standards on forest certification. A training course was sponsored by the SFA in Beijing in October 2001 and a workshop sponsored by six parties, including the SFA, WWF and the China Academy of Forestry, was held in Jilin Province in December 2001.

The demand for wood products using certified timber is still small but has risen mainly among foreign mass-market retailers such as IKEA (the prominent Swedish international furniture distributor), B&Q (a large British home furnishing chain store), and Carrefour (a French world-wide supermarket chain store) (Yamane 2001). The demand for certified tropical timber has also increased gradually in export-oriented wood product processing enterprises. By the end of December 2001, the number of companies in China sourcing certified timber through a 'chain of custody' (CoC) system under Forest Stewardship Council (FSC) certification reached 29, up from 17 at the end of June 2001 (Table 6). Most of these companies are located near coastal cities and export products such as furniture and fittings to the United States and Europe.

In terms of forest certification, Changhua Forest Farm, a forest management unit in Zhejiang Province, was assessed in 2001 and a certificate granted under the FSC-accredited SmartWood programme in February 2002.

4.5 Forest tenure and taxation

There was no major policy change on forest tenure and taxation in 2001 or 2002. The government attempted to maintain forest tenure stability through stronger law enforcement and regulatory measures. Forest taxation is a major problem in the forestry sector in China (Lu *et al.* 2002), and the government has become increasingly aware of this problem. Major reforms here, along with rural taxation reform, are expected very soon. Trial reforms for rural taxation began in Anhui Province in

Table 7 Changes in timber import volumes at individual gateways, 1996 to 2001.

	Province	Gateway	Year					
			1996	1997	1998	1999	2000	2001
Inland	Inner-Mongolia	Manzhouli	150	3,880	672	1,824	2,153	3,115
		Erliahot	18	119	262	956	1,542	1,676
	Heilongjiang	Suifenhe	276	385	563	1,355	2,070	3,144
		Heihe	3	0.2	4	106	60	71
		Other minor gateways	47	28	22	59	103	474
	Jilin	Hunchun	0.6	0	1	11	9	31
	Xinjiang	Alashankou	0	0	0.3	8	7	16
Coastal (% of total)	-	-	54 (10)	41 (4.2)	66 (4.2)	80 (1.8)	95 (1.6)	562 (6.2)
		Total	542	960	1,590	4,400	5,936	9,089

Note: Figures are in 1,000 m³.

Source: Based on China trade statistics.

2000, and expanded to other provinces in 2001. The general approach of such reform, including forest taxation reforms, has been to reduce the overall tax rate very significantly in order to benefit rural farmers, including forest farmers, and attract more investment in rural areas.

5 State of Sino-Russia timber trade

5.1 Overview of the recent situation

With an average annual growth rate of more than 40 per cent in the period 1995 to 2000, timber imports from Russia have increased steadily since 1995. The volume imported in 2000 was seventeen times that of 1995. The market share of timber imports from Russia in that year increased to 43.6 per cent, up from 13.9 per cent in 1995. In 2001, timber imports from Russia rose to 8.77 million m³, accounting for around 52 per cent of China's total timber imports. The preliminary figures for trade statistics in 2002⁸ show that timber imports from Russia have maintained steady growth, reflecting the general trend in China's timber market, and that the cumulative import volumes of Russian timber from January to July exceeded the total import volume of 2001.

Roundwood is a main component of the timber imported from Russia. Although primary sawnwood did not exceed 5 per cent of the total import in the past, its import volume has increased sharply in the last few years.

Russian logs have dominated China's timber trade mainly due to the following reasons. Firstly, Russian logs are high in quality and large in diameter as compared with Chinese timber, and in terms of potential uses they compare well to alternatives coming from China's northeast region, such as Mongolian pine, Korean pine and larch. Secondly, Russian timber is

cheap or moderate in price due to low labour costs in Russia, and because of low transportation costs brought about by the volume of border trade. Thirdly, imported Russian timber can readily replace the dwindling supplies from China's natural forests in northeastern and northwestern regions where harvesting has decreased or even stopped altogether as a result of logging bans imposed under NFPP.

Most of the imported logs from Russia are transported through inland borders, mainly by railway. The main gateways for Sino-Russia land border trade are Manzhouli, Erliahot and Suifenhe, all which have direct railway connections with Russia. The annual log import volume passing through these three gateways from Russia has constituted more than a 90 per cent of the total in the past several years (Table 7). However, since 2001, marine transport has increased slightly. The port city of Dalian has become the top marine gateway both for Russian logs and sawnwood imports in the past few years.

The timber distribution network in China is poorly developed because of the short history of private sector timber trade, and because most timber import enterprises are only small to medium in size. On the Russian side, many medium- and small-sized timber export enterprises have appeared rapidly in recent years and tend to operate closely with each other, and some are considered to be pivotal in the trade of illegal logs destined for China.

5.2 Recent trends in the Sino-Russian timber trade

A governmental agreement was reached on Sino-Russia economic and trade cooperation, including Siberian forest development, in November 2000⁹. Due in part

⁸ Source : *Chinawood*, September 2002.

⁹ Joint Communique on the Fifth Regular Meeting between the Heads of Government of the People's Republic of China and the Russian Federation (12th March 2000)

Table 8 Chinese logging operations in Russia, 1999 to 2001.

	1999	2000	2001
Volume of Russian timber harvested by Chinese logging operations	24	27	32
Volume as % of total timber imported into China	2.37	1.98	1.90
Volume of Russian timber exported to China by Chinese operations	10	17	17
Volume as % of total timber imported into China	0.99	1.25	1.01

Note: Figures are in 10,000 m³.

Source: Sun (2002).

Table 9 Imports of selected wood-based building materials from China into Japan.

Category	units	1998	2001	% change
Larch flooring	m ³	791	6010	+660%
Other softwood flooring	m ³	715	7462	+944%
Hardwood flooring	m ³	18266	54258	+197%
Doors & frames	000 kg	528	1269	+140%
Fittings & fixtures	000 kg	137	212	+55%
Structural laminated lumber	m ³	3544	24600	+594%

Source: From Flynn (2002), based on Japan Lumber Journal, citing Japan Ministry of Finance import statistics.

to the improved relationship between China and Russia, logging activities in Russia and the export of Russian logs to China by Chinese enterprises have gradually increased. In 2001, logging operations in Russia run directly by Chinese enterprises harvested 320,000 m³ of timber, and 170,000 m³ were exported to China (Table 8).

The half taxation policy at the Russian border for small-scale enterprises (including small-scale border trade in timber), remained unchanged in 2001 and 2002. This continuation of the policy also contributed to the significant increase in Russian timber imports.

Dialogue in the private sector has become active recently. A business meeting entitled 'the Sino-Russia Wood Trade & Investment Conference' was held on 17th and 18th November 2002 in Beijing, organized by China Wood International Inc., with more than 130 participants, including forest-related officials and wood industry representatives from China, eastern Siberia, the Russian Far East, Japan, and elsewhere. The lively meeting addressed obstacles and sought solutions for the further development of Sino-Russia timber trade, and included vigorous business discussions among parties aiming to find partners. These are impressive signs of recent progress in Sino-Russia cooperation, particularly in the private sector.

5.3 Key trend : 'made in China' wood products from Russian timber

A certain proportion of Russian logs and sawnwood imported into China is for domestic use as an alternative to domestically sourced timber. However, the remaining timber is processed as value-added products for export

to western countries such as the United States and to Japan. The remarkable increase in production and export of 'made in China' wood products from Russian timber is an important trend in China's growing timber market (Flynn 2002).

After Canada, China is the second largest importer of U.S. wood products (excluding furniture, wood pulp and paper). China's annual import of these products in 2001 was more than U.S. \$1 million and for 2002 this figure is expected to reach U.S. \$1 billion. Ninety per cent of these imported wood products are reportedly value-added wood products.

Japan's value-added wood product imports from China have grown in both volume and value over the last few years. Japan's imports of wood products from China reached U.S. \$384 million in 2001, surpassing wood imports from Russia, at U.S. \$135 million. The recent sharp increase of value-added building material imports, such as fittings and flooring, is noteworthy. While these were small in the past, the import volume increased by more than 500 per cent between 1998 and 2001 (Table 9). For the last two to three years, Japanese general trading companies such as C. Itoh (Itochu) and Sumitomo Forestry began to export these value-added 'made in China' Russian wood products to Japan. In addition to this trend, processing factories established by Japanese and Singaporean capital have been set up in Dalian and have begun producing products labeled 'made in China' from Russian wood.

Even in European countries, mainly the United Kingdom and Italy, wood product imports from China have grown sharply in the last few years. Taking the import

values of wooden fittings from China as an example, an analyst estimated that the value of European imports of these products will reach more than U.S. \$8 million in 2002, a 100 per cent increase from 1999, and will surpass the value of builders' joinery exported from China to Japan for the first time. After 2002, these imports are expected to increase at a rapid pace (Flynn 2002).

The raw materials of value-added wood products made from red pine, larch, spruce, oak and ash will probably continue to be sourced mostly from Russia because China's domestic supply of these logs has plummeted due to the implementation of NFPP, and because China has been importing these logs mainly from Russia.

The high potential for a steady log supply, in the context of a rich Russian forest resource and reasonably priced log exports to China, is advantageous for the Sino-Russian timber trade. In addition, timber trade policies such as duty-free imports and the half taxation policy for Russian small-scale border traders, may have served as a further impetus for trade.

In addition to these factors, mention must also be made of the favorable conditions of the labour force in China, which is characterized by low wages and high levels of education, allowing for low-cost value-added wood processing. China has a surplus labour force in rural areas due to sudden structural adjustments involving state enterprises. Such a situation provides cheap labour that can easily be shifted to development areas. As an example, joint enterprises in Dalian producing '*made in China*' products from Russian wood have been able to realize the mass production of low-cost value-added products by hiring well-educated guest workers, aged eighteen to mid-twenties, from the northeast of China, laying them off after about three years under the control of the official family registration system, and also by rationalising on the unproductive 10 to 20 per cent of workers. Such a business model permits enterprises to enjoy a highly productive labour force whilst holding wages down¹⁰. Enterprises are also increasingly introducing efficient processing equipment to complement the use of manpower where manual operation is more cost-effective, seeking high quality production at a low cost.

6 Analysis and comment

6.1 Prospects for the future of China's timber market

There is a high possibility that China's timber consumption will steadily grow, due mainly to construction demand, as it has done over the past ten years. In 2002,

¹⁰ According to the field survey in conducted in Dalian (August 2002), the average monthly wages for workers, including welfare expenses, were around 1,000 to 1,200 RMB and their monthly take-home pay was around 700 RMB.

China experienced many favorable opportunities for economic growth that are likely to continue, such as joining WTO; initiation of the Great West Development programme; selection for the 2008 Olympics; and the initiation of massive national infrastructure development programmes. The tenth five-year national plan (2001-2005) adopted aggressive fiscal policies aimed at doubling GDP by the year 2010 from the level in 2000. All these factors will continue to stimulate the timber market across the country.

China's wood products processing industry is very likely to see a huge additional increase in log demand, with the entry of more foreign finance enterprises into the area of value-added wood products processing. The acceleration of economic liberalization and further deregulation accompanying WTO affiliation will provide improved conditions for foreign enterprises. On the other hand, the domestic supply of large-diameter roundwood will not recover until 2010, because log production in natural forests will be restricted or prohibited due to implementation of NFPP. The future domestic log supply, produced in plantations of fast-growing species, will be characterized by a greater proportion of small logs relative to large ones, more coniferous timber and less hardwood, and more low-quality logs and fewer good quality logs, as compared with previous harvests from natural forests.

Accordingly, it can be concluded that the short-term perspective for China's timber market will remain relatively unchanged, compared with 2001 and 2002. The volume of imported timber will continue to increase rapidly. In the import trade, logs from Russia will dominate, followed by logs from New Zealand. Tropical hardwoods will still be sourced mainly from Southeast Asian countries such as Malaysia, Indonesia, Myanmar and Papua New Guinea, and West African countries such as Gabon, Equatorial Guinea and Liberia. Besides Russia, temperate hardwoods and in particular beech, will continue to be sourced primarily from Germany and France.

6.2 Problems to be resolved for a developing Sino-Russian timber trade

Enhancement of China's transportation infrastructure and the environmental suitability of Russian logs are key issues that require attention as the Sino-Russian timber trade grows.

Railways, the main component of China's domestic transportation system, are reaching the limits of their capacity. In addition, the competition for railway cars to carry Russian timber from inland border gateways and distribute other domestic products such as agricultural commodities and industrial materials has intensified due to the country's continuous economic growth under economic liberalization policies. As a result, delays in the delivery of Russian timber from the inland border gateways occur frequently. The recent growth of timber

imports by marine routes, as mentioned, may be partly a response to this situation. Thus, the bolstering of railway transportation and diversification of transportation modes are essential requirements if the Sino-Russian timber trade is to grow further.

The environmental suitability of Russian logs may be a key issue affecting further exports to developed countries of 'made-in-China' products based on Russian wood. Chinese administrative officials have made an effort to show that Russian logs clearing official customs import procedures on the Chinese side do not include any illegal logs and that the illegal felling and trading should rightly be considered a problem on the Russian side. Environmental non-governmental organizations in international society, however, have frequently pointed out that China does import a certain amount of Russian logs illegally. Several Russian officials at a recent international conference maintained that Russian logs are being exported to China illegally¹¹. As the Sino-Russian timber trade develops further, international society has become more aware of these problems, and as a result, there is increasing pressure for China to enforce countermeasures. In order to increase the market share of 'made-in-China' wood products, especially in the European market where wood products derived from certificated timber are becoming increasingly popular, resolving issues relating to environmental suitability of products at all stages, from harvesting to processing of the final product, will very likely become a necessity. In response to these new requirements, the approach followed by Finland, which also imports timber from Russia and thus faces similar problems relating to illegal log imports, may provide a useful point of reference. In Finland's case, examples of countermeasures include a support system created to allow forest operations to

acquire forest management certification in the timber-supplying district, as well as agreements reached in the private sector prohibiting the use logs harvested from pristine old-growth forests.

Besides the issues mentioned above, some observers have pointed out the need for improvements in the timber market itself. If progress is made in the areas covered here, Chinese imports of Russian timber are likely to increase further.

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¹¹ For example, a presentation by Russian high officials from the Krasnoyarsk forest authority at the "Sino-Russian Wood Trade & Investment Conference," 17-18 November 2002, Beijing, China.