

China's experience in trade statistics on bamboo and rattan

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Abstract—Bamboo and rattan (B&R) are important non-wood forest products whose annual world trade is currently estimated to be more than US\$ 10 billion. However, the huge economic and social importance of the B&R sector, whether at national or global level, is based on estimations because of the complication and scattered existence of information sources. In China, the B&R industry and its export activities are well developed, and a comparatively good system and a more detailed commodity classification have been adopted to collect the information. This paper will offer an introduction to China's international statistical system for B&R data and trade development in the recently years.

Key words: Export; statistics; trade data.

INTRODUCTION

Representing a significant natural resource, bamboo forests are distributed mainly in Asia, Africa and Latin America, covering over 20 million ha or about 1% of the total forest area in the world. China is in the central geographical position within the world bamboo growing areas, with 5 million ha of bamboo forest, about 4% of the country's wooded areas, and China is also noted for the management and exploitation of bamboo resources and ranks first in the world in terms of bamboo yield. The industry is well developed. Various products are sold, both nationally and worldwide. These bamboo products have formed some of China's traditional major export items.

Rattan is the second most important source of export earnings from tropical forests. In China, rattan is naturally distributed in more than 11 provinces of south China, but Hainan and Yunnan are two centres where the diversity and productivity are the highest. However, tropical forests are limited and the Chinese annual yield

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is 5000–7000 tonnes, which only meet 10–20% of the domestic market demand. The Chinese rattan industry relies on imports of raw materials.

In China, all the statistics for import and export commodities, including Bamboo and rattan (B&R), are compiled by the Chinese customs authorities.

CHINA'S INTERNATIONAL TRADE STATISTICS

In China, the Customs are responsible for the collection, processing, compilation and dissemination of the country's external merchandise trade statistics known as customs statistics. Along with the control and monitoring of goods, the collection of duties and excise and anti-smuggling activities, trade statistics gathering forms the fourth basic function of China's Customs.

Organizational structure

The Customs General Administration of China (CGA) is the highest Chinese Customs authority. There are 41 Customs districts throughout the country under the direct leadership of CGA, and more than 370 local Customs houses distributed nationwide. The statistical department (SD) is an executive unit within the CGA which is responsible for the methodology, data collection, processing, compiling, analyses and dissemination of international trade statistics within China. More than 1000 officials work on Customs statistics, either at the statistics office or in each of the 41 customs districts and local customs offices.

Compilation methodology

The concepts and definitions recommended by the United Nations for use in international trade statistics have been adopted by China Customs. For commodity classifications, China Customs statistics were classified using a 6-digit code based upon SITC Rev.2 (Standard International Trade Classification Revision 2) for the years 1980–1991. Since 1992, an 8-digit code classification based upon the HS has been used for collecting and compiling trade statistics. The current statistical nomenclature contains around 7000 8-digit commodity subdivisions: the first six digits correspond to the Harmonised System (HS), the 7th and 8th digits are national subheadings established for the purposes of tariff, trade statistics or trade policy measures. For valuation for statistics, imports are valued on a CIF basis and exports on a FOB basis. For the trading partner, the country of origin is reported for imports and the country of final destination is reported for exports. The country of consignment is also recorded for imports and exports as additional information. For recording time, imports are recorded on the date when goods are released, but exports are recorded on the date when goods are cleared from customs.

Data collection and processing

Chinese Customs statistics are compiled from the declarations submitted to the customs authority by importers or exporters. The declarations are verified by customs officers at entry ports and forwarded electronically through the customs automation entry system to the relevant customs districts for further examination and clearance. Data elements for compiling trade statistics are extracted and verified by the statistical offices, and afterwards transmitted on-line from all customs districts to the CGA computer centre on a monthly basis. In order to ensure the accuracy of trade data, the CGA has developed editing programs that check the data before they are released. The statistical elements taken from declarations include commodity code and description; quantity; value; partner country (origin, final destination, consignment); customs regimes; location of importer or exporter; customs districts of clearance; mode of transport.

Data dissemination

CGA reports on monthly provisional trade data are released to the public through the media within 13 days following the reference month. Detailed data are available within 25 days after the reference month. Two regular publications on China's external trade statistics are edited by the CGA, in Chinese and English, and issued internationally, i.e. China's Customs Statistics, monthly publications, and the yearbook. The CGA provides trade data to various internal and external users, including government institutions, international organizations, commercial enterprises, researchers and individuals. Data can be provided in formats of hard copies, magnetic tapes, diskettes or CD-ROMs, as requested.

B&R CLASSIFICATIONS IN CHINA CUSTOMS STATISTICS

There are currently 14 8-digit codes for bamboo and rattan products in the Chinese harmonized classification system which are related to Chapter 07 (Edible vegetables), Chapter 14 (Vegetable plaiting materials), Chapter 20 (Preparation of vegetables), Chapter 46 (Manufactures of plaiting materials) and Chapter 94 (Furniture). The details are listed in Table 1. Unfortunately, the above codes do not cover all B&R products. With the application of new technology, the utilization of bamboo has developed quickly and many of new products are being exported, for example, bamboo boards, bamboo charcoal, bamboo paper and pulp.

CHINA'S B&R TRADE DEVELOPMENT

B&R products are both exported and imported, although the former category is more important than the latter. In 2002, the export of B&R products (those covered in Table 1 and below) amounted to US\$ 473 million, whilst the import value was

US\$ 30 million (all figures in the following tables and graphs in this section are from China Customs Statistics).

Table 1.
China's B&R classification for external trade statistics

Chapter 7	Edible vegetable and certain roots and tube
07099010	Bamboo shoots, fresh or chilled
07119031	Bamboo shoots, in brine
07129010	Bamboo shoots, dried
Chapter 14	Vegetable plaiting materials; vegetable products not elsewhere specified or included
14011000	Bamboo, used primarily for plaiting
14012000	Rattan, used primarily for plaiting
Chapter 20	Preparation of vegetables, fruit, nuts or other parts of plants
20059031	Boiled bamboo shoots in airtight containers, volume exceeding 8 liters
20059039	Other bamboo shoots in airtight containers
Chapter 46	Manufactures of straw, of esparto or of other plaiting materials; basketware or wickerwork
46012010	Mats, matting and screens made of rattan
46012040	Mats, matting and screens made of bamboo (this code should be added from 2004, since now bamboo mats are classified into code 46012090)
46019110	Other plaited or similar rattan products, bound together in parallel strands or woven, in sheet form
46021010	Basketwork, wickerwork and other articles made of rattans
46021030	Basketwork, wickerwork and other articles made of bamboo
Chapter 94	Furniture; bedding, mattress, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like; prefabricated buildings
94015000	Seats (other than those of heading No.94.02), of cane, osier, bamboo or similar materials
94038010	Other furniture of cane, osier, bamboo or similar materials

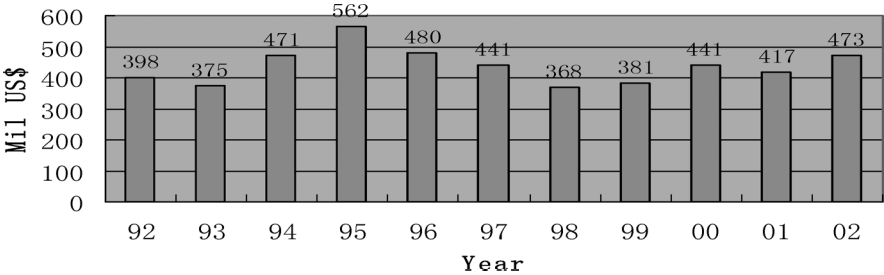


Figure 1. Bamboo and rattan export 1992–2002.

Exports of B&R

Bamboo and rattan products are major traditional export products. During the 10-year period shown in Fig. 1, B&R exports have grown steadily. In 2002, the export value was US\$ 473 million (Table 2), representing a 0.14% share of China's total exports, increasing 19% over 1992. The growth rate would be much higher if the new bamboo products were included. Bamboo products constitute the larger proportion of B&R exports. In 2002, bamboo products represented 80% of the total and rattan 20%.

Among B&R exports, plaited products like mats, screens and basketwork form the major part, representing 54% of the total export category, whilst bamboo shoots in cans amount to 25%, bamboo as a vegetable accounts for 5%, furniture made from B&R constitutes 12% of the market. B&R as raw materials has only a 5% share. Figure 2 shows the development in exports since 1992 of major B&R products.

China exports B&R to more than 120 countries/regions in Asia, Africa, Europe, North America, Latin America and Oceania. Among these partner countries, Asian countries, like Japan, Hong Kong, Korea and Taiwan, are major consumer countries/regions, which together share 54% of total B&R exports. North America's share stands at 25%, with Europe at 17%. (Fig. 3).

Table 2.

Export of B&R by product 2002

HS2	Description	Export (US\$)	Ratio
Chapter 7	Bamboo as vegetable	23 527 760	5%
Chapter 14	B&R for plaiting materials	23 211 501	5%
Chapter 20	Preparation of bamboo	116 987 791	25%
Chapter 46	Manufactures of B&R	254 299 901	54%
Chapter 94	Furniture of B&R	54 583 120	12%
Total		472 610 073	100%

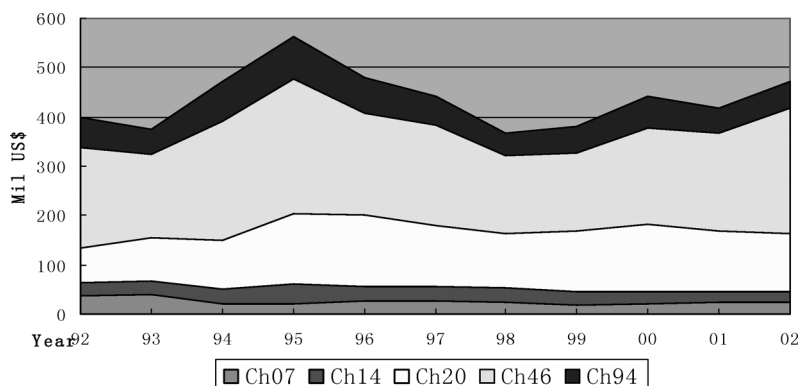


Figure 2. Export of B&R by product.

The major trading areas in China for B&R exports are Guangdong province (37% of the total), Zhejiang province (24%); Fijian province (20%), Guangxi province (6%) and Jiangsu province (4%) (Table 3). It is notable that the major B&R provinces which produce the original materials, like the Sichuan area, account only for 2%, whilst Hunan province is even lower at only 1%. Table 3 shows that the manufacture of B&R capability is still low, or does not meet the standards required for export. Thus, increased investment and better information are essential if these inland areas are to improve their exports.

State-owned companies are dominant among those which export B&R, although there has been a significant development of Foreign Investment Enterprises (FIEs) during these years. In 2002, 47% of B&R were exported by state-owned trading

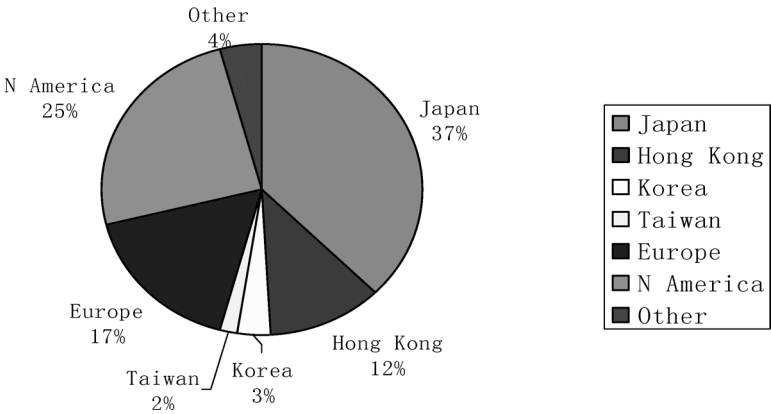


Figure 3. B&R export by destination, 2002.

Table 3.
B&R export by location of trading companies

Export province	Export (US\$)	%
Guangdong	176 884 162	37
Zhejiang	113 102 609	24
Fujian	92 715 980	20
Guangxi	29 919 142	6
Jiangsu	18 024 792	4
Shanghai	6 800 121	1
Anhui	6 295 734	1
Hunan	5 163 523	1
Jiangxi	4 782 465	1
Sichuan	4 156 838	1
Shandong	3 436 903	1
Chongqing	2 891 506	1
Total	472 610 073	100

companies, 38% by FIEs, compared with 1993 when 85% of the exports were made by state-owned trading companies and only 15% by FIEs.

Imports of B&R

Import data for B&R are much more straight forward than export figures. Imports of B&R have grown over the past decade, as shown in Fig. 4. As shown in Fig. 5, the main imports are B&R raw materials (Chapter 14, plaiting materials), of which rattan-plaiting materials formed 83% of total B&R imports. In 2002, the import value of B&R was US\$ 30 million, an increase of 38% over 1992, a big rise in domestic demand for rattan materials. Figure 6 shows that importing partners are mainly South-East Asian counties, such as Indonesia (67% of total imports), Vietnam 10%, Burma 7%, Philippines 2% and Taiwan 13%.

Survey of new bamboo products

Although there are no special codes for these new products, the CGA has tried to make a survey based on each export declaration form, in which the relevant bamboo products are declared. The results are not entirely satisfactory since there are no clear identification codes and description for these bamboo products, and exporters

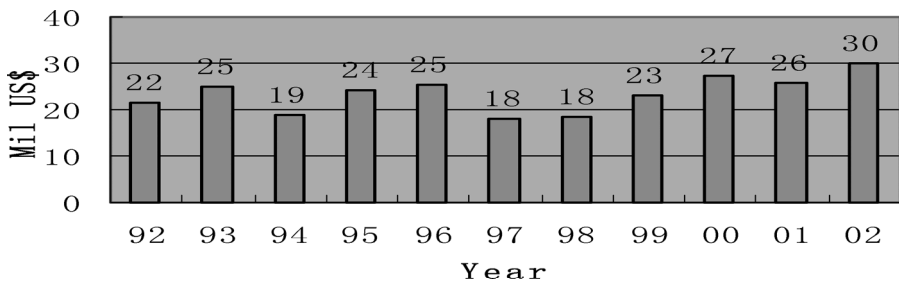


Figure 4. B&R import 1992–2002.

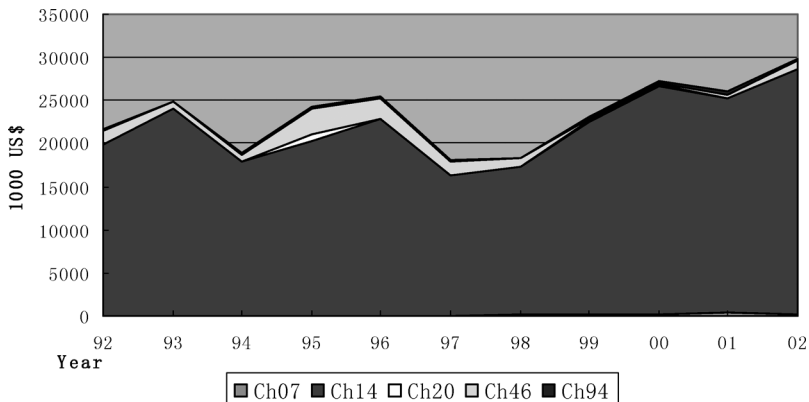


Figure 5. Import of B&R by product.

sometimes do not declare their products are made from bamboo and there are some misclassification problems.

As shown in Table 4, the export value for bamboo charcoal and floor boards are noteworthy, even though the value is small, such as for panel and paper pulp, where the growth rate is very high, they nonetheless show that the market for these products is developing quickly. Almost all the bamboo charcoal is exported to Japan, whilst the US, Europe and Japan are the biggest consuming countries of bamboo floor and panel.

The importance of promoting the bamboo and rattan trade in China

Rapidly increasing exports have become one of the most important driving factors for the development of the Chinese economy. The exploitation and utilization of B&R, and in particular bamboo resources, are important to China’s economic development, as well as to reforestation and antipoverty campaigns.

China faces the critical problems of destruction and deterioration of its forests and ecological environment. In recent years, China has launched a series of campaigns to conserve natural forests and establish forests for soil and water conservation in the middle and upper reaches of Changjiang River. Logging has been banned, and agricultural cultivation in forest areas has been replaced by reforestation. While the

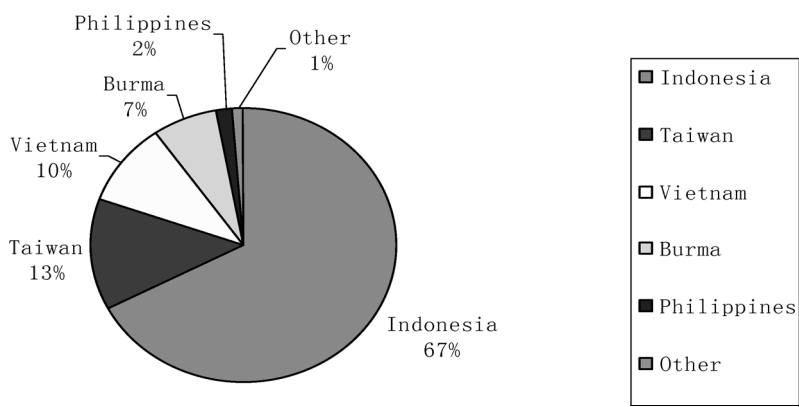


Figure 6. B&R import by origin, 2002.

Table 4.
Export of new bamboo products

Products	2002		2001		US\$ growth (%)
	Ton	US\$	Ton	US\$	
Bamboo charcoal	3043	3 702 854	1660	2 102 109	76
Bamboo floor board	2415	3 832 835	1956	3 054 635	25
Other bamboo panel	0.415	249 412		2000	12 371
Bamboo paper pulp	58	34 521	30	10 260	236

environment and vegetation growth have started regenerating, the conflict between human beings and forest conservation has been more difficult to resolve. With intense population pressures and, in particular, the stresses posed by poverty, the southwest provinces are trying to meet the huge challenges of forest conservation and antipoverty drives.

Fortunately, bamboo forests outpace wood in their growth rate and offer remarkably high yields, with the southwest mountain region, one of the richest areas for bamboo resource. More investment, increased cultivation, and industries have been promoted. The usage of new technology, markets for bamboo product domestic and abroad have been expanded. Bamboo products now play a vital role, providing an alternative to wood, bringing in a good income to local people, as well as improving the forestry environment.

BAMBOO AND RATTAN STATISTICS IN THE GLOBAL PERSPECTIVE

International

According to the International Network on Bamboo and Rattan (INBAR), the world trade in bamboo and rattan is currently estimated over US\$ 10 billion every year. However, the statistics at both national and global levels is based on estimations, and there are complications posed by scattered and diverse information sources, the provision of unreliable or non-comparable data. In the current Harmonized System (HS), adopted by most countries for use in international trade statistics, there are only a few HS 6-digit level codes (shown in Table 5) which identify B&R products, with the majority often grouped together with other products or included in the category 'any other'.

Japan

As one of the biggest importing countries, Japan sets 9 HS national codes (Table 6) for trade statistics. Obviously, as a major consuming nation of bamboo shoots, bamboo mats, and bamboo charcoal, these 9 codes cannot provide a full picture of Japan's imports of B&R.

Table 5.

HS 6-digit code for B&R

140110	Bamboo, used primarily for plaiting
140120	Rattan, used primarily for plaiting
460120	Mats, matting and screens made of vegetable materials
460210	Basketwork, wickerwork and other articles, made of vegetable materials
940150	Seats (other than those of heading No.94.02), of cane, osier, bamboo or similar materials

Table 6.

B&R classification in Japan

HS code	Description	Import data for 2002	
		kg	US\$
140110-000	Bamboo	17 232 317	889 017
140120-000	Rattan	225 892	140 553
460210-023	Basketwork, wickerwork and other articles of bamboo	7 317 296	3 008 795
940130-020	Swivel seats with variable height adjustment of rattan	29 945	17 439
940140-020	Seats other than garden seats or camping equipment, convertible into beds of rattan	69 046	35 638
940150-010	Seat of rattan	7 747 984	2 996 404
940190-010	Seats parts of rattan	153 908	165 658
940380-100	Furniture of rattan	7 364 049	2 842 316
940390-030	Furniture parts of rattan	18 016	9173

Source: Japanese Customs Authority.

Action to improve the situation

For better international statistics on B&R, the Common Fund for Commodities has recently added bamboo and rattan to the list of commodities, with the request that reliable statistics on their production and trade be compiled. A proposal has been made by the INBAR and supported by the FAO and China Customs, to the World Customs Organization (WCO) to improve the identification of B&R products in the HS. It is, therefore, likely that we will have more reliable worldwide information on B&R in the near future.

CONCLUSIONS

It is essential to have comprehensive, accurate information of B&R products, at national and global level, to make precise assessment of the present situation and an appreciation of the full economic value, for environmental resource managers, decision-makers and business investors, to develop adequate policies and mechanisms to guarantee a sustainable and equitable development of B&R sectors.

As the one of the largest producer and trading countries in B&R, China has a comparatively good system for trade statistics, yet this should be continuously improved. Good statistics on B&R have definitely contributed to greater investment, industrial output and increased trade. It is hoped that this experience may be of some help for other developing countries, also concerned in the B&R trade.

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