

Status of rattan sector in the Philippines

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Abstract : For generations, rattan has been an integral part of the culture of the people in the Philippines. After 1970s, the rattan sector grew as a major commercial enterprise with many impressive achievements: hundreds of thousands of workers involved in various stages of the production-consumption system; consumption of over 200 million linear meters of rattan annually; well established market links throughout the world and export revenues worth US\$ 241 million generated in 1994. These indicators have placed the Philippines amongst the world's leading countries in the domain. However, during recent years the rattan sector in the country has been passing through a critical phase. Depletion of the resource base and shortage in raw material supply, increased rattan imports, decline in its world market due to competition and aggressive marketing performances from neighbouring countries have been the major reasons for the setback in rattan sector of the country.

Key words: Philippines, rattan sector, production-consumption system, international market.

INTRODUCTION

Rattan is one of the most important forest products after timber throughout much of the tropical regions. For generations, this non-timber forest product (NTFP) has been an integral part of the culture of the people of the Philippines (FORSPA, 1993). During 1970s and subsequent decades, the Philippines could develop a gigantic commercial rattan sector that supplied premium quality furniture and handicrafts to the international market. In short, the Philippines has been a model for countries that are seeking ways to develop their rattan sector.

Paradoxically, in recent years, the Philippines rattan sector has been facing a setback. This situation has raised concern about the future of the country's rattan sector. The present paper gives an overview of the Philippines rattan sector, presents its

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achievements and weaknesses and tries to analyze the factors that have led to the present situation. The paper is based on the primary data and secondary information. Primary data were collected by direct observations and through semi-structured interviews. The secondary data were obtained from the libraries of Center for Environment Science (CML), Leiden University, Wageningen Agricultural University, the Netherlands, and Isabela State University, the Philippines.

Rattan resources of the Philippines

There are four genera of rattans comprising about 91 species in the Philippines. Among the rattan species currently harvested, Palasan (*Calamus merrillii*) and Limuran (*C. ornatus* var. *philippinensis*) constitute bulk of rattan resources of the country (Diaz *et al.*, 1997). The latest inventory done in 1987 estimated the standing crop at 4.6 billion linear meters (Diaz *et al.*, 1997). Almost all rattans produced in the Philippines grow in the wild. Until now, only a few rattan plantations have been established in the country. During the last two to three decades, rattan has served as an essential material for the manufacture of furniture and handicrafts (PCARRD, 1991). Besides, certain parts of rattan plant are edible or used for medicinal purposes.

The government has recognized the importance of rattans in the country's economy, particularly with respect to employment potential, income and foreign exchange generation and has taken steps to manage the rattan resources and develop the industry. The main emphasis of the government policy in the rattan sector as stipulated by the Revised Regulation Governing Rattan Resources (DENR, 1989) is to ensure a sustainable productivity of the resource and provide a system of gainful and efficient utilization of rattan. This objective is made operational through many instruments amongst which the most important are, the rattan cutting license, the rattan production blocks, the annual allowable cut (AAC) or sustainable yield cut (SYC), the taxes, the monitoring and plantation development (PCARRD, 1991). Since 1989, there have been some progressive changes to encourage community or people's organizations for resource management. In 1995, community-based forest management (CBFM) was adopted as the national strategy for forest conservation. In the framework of CBFM, priority is given to the communities as far as the access to forest resources is concerned (PCARRD, 1991; Belcher, 1997; Defo, 2005).

Production-consumption system

Many actors are involved in the rattan sector of the Philippines. The main participants in the production-consumption system are gatherers and raw material traders; rattan processors; manufacturers, labourers and finished product traders; plantation owners and other participants. The sequences of production and trade in rattan sector in the Philippines are shown in Figure 1.

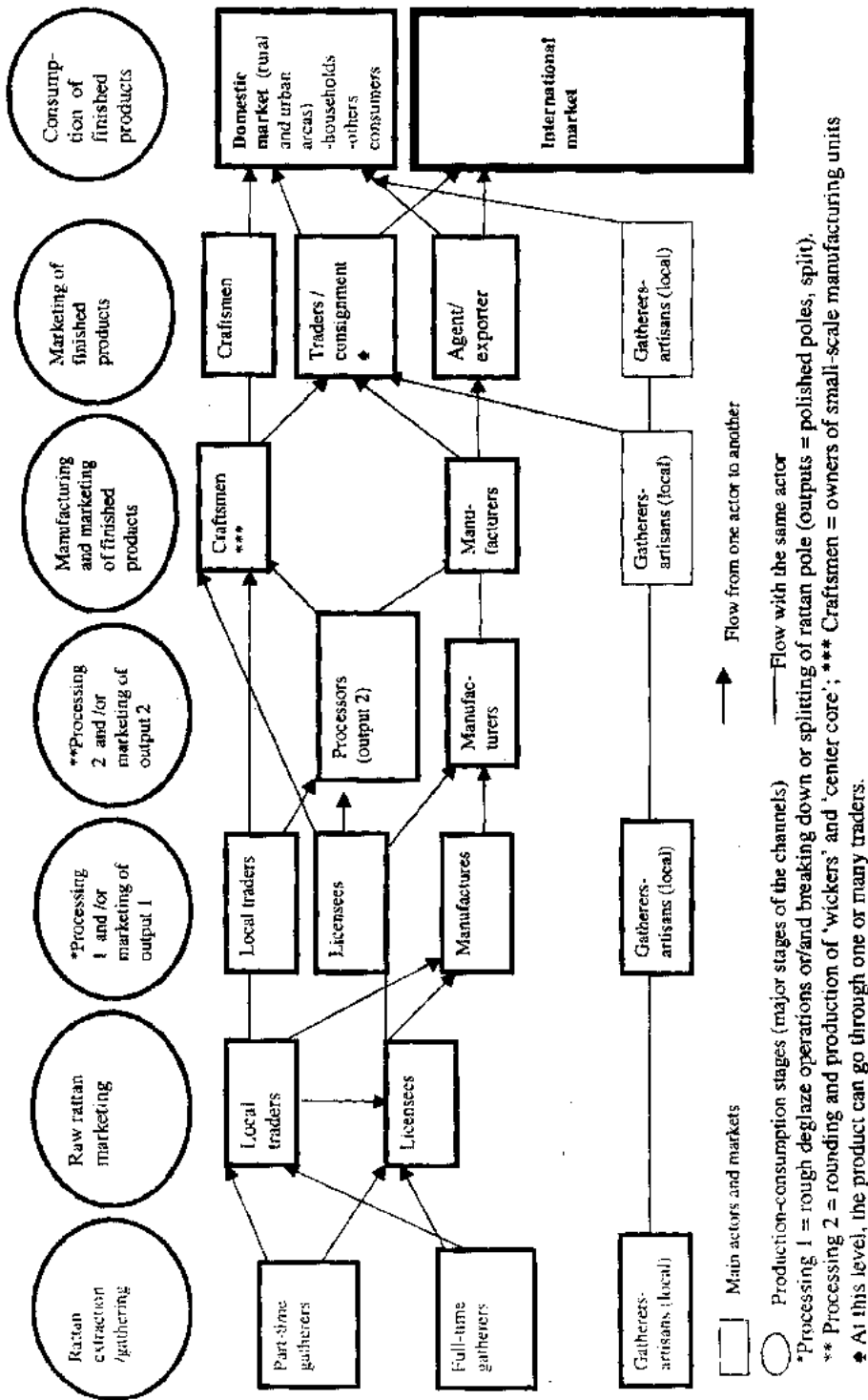


Figure 1. A simplified rattan trade network in the Philippines sources: (Defo, 2005; ATI and UNAC/PBSP Upland Marketing Program, 1995; Aquino et al., 1992; Wakker, 1991).

Gatherers are either part-time or full-time collectors, tribal or non-tribal people. They may or may not be members of gatherers' association. Some are working under a head cutter who takes care of the transactions with the license holder or his agents. Raw material traders may be licensees (permit holders) or unlicensed middlemen (illegal traders). Some people's organizations are also involved in raw rattan trading. Some gatherers, traders and manufacturers are involved in rattan semi-processing or processing. Some people are engaged in rattan processing on a full-time basis. Processors scrape and /or breakdown rattan pole into wicker and splits either manually or with the machines. Manufacturing is carried out by small, medium or large-scale units. Small-scale units use hand tools and simple gadgets for manufacturing, whereas large-scale firms employ sophisticated equipments and techniques. Rattan manufacturing firms are located in Cebu, Pampanga and Metro Manila. Small-scale and medium-sized units are scattered in other towns and rural areas. Finished products include baskets, furniture and handicrafts.

Labourers work in processing or manufacturing units on a full-time or temporary basis. Most of them are piece workers. Finished products traders are engaged in the commercialization in the Philippines market, the international market, or both. They may be retailers, wholesalers or both. Rattan plantation owners can be governmental institutions under projects or programmes such as Bureau of Forest Development, Forestry Sector Programme, Philippine Forestry Development Project, *etc.*, or logging companies (Paper Industries Corporation of the Philippines (PICOP), Bukidnon Forest Incorporate, *etc.*, or manufacturers (AWECA Group of Companies) and farmers (Defo, 2005).

These are many outside participants, who are not primary actors involved in the system. They are state institutions like Department of Environment and Natural Resources (DENR), Department of Trade and Industry (DTI), Philippine Council for Agriculture, Forestry and Natural Resources Development (PCARRD), Ecosystems Research and Development Bureau (ERDB), Banks and institutions of bilateral or multilateral cooperation such as ADB, GTZ, USAID, FAO, NGOs and religious bodies (*e.g.*, Upland NGO Assistance Committee, Appropriate Technology International, Ford Foundation, Parish Priest of Echague) (ATI & UNAC/PBSP, 1995). These actors are involved in policy formulation, training, research, funding, and many other aspects of the sector (Defo, 2005).

Production sector

The achievements of the Philippines rattan sector are particularly remarkable in the domains of production and commercial performance. Although the Philippines is not the richest country as far as rattan species diversity is concerned, the country has about 12 of the 50 commercialized rattan species found around the world (Liese, 2001). This potential is impressive as compared to the whole African potential estimated at 6 commercial species (Sunderland, 2001). Using this potential and taking advantage of importation and other factors, the Philippines is one of the biggest rattan consumer in

the world. About 170 to 200 millions linear meters are consumed per year (Belcher, 1997; Baja-Lapis, 1999) which can probably be challenged only by Indonesia and Italy.

The Philippines rattan sector employs more than 800,000 people at various stages of the production-consumption system (Belcher, 1997). Malaysia and Indonesia, the other leading rattan-trading countries employ only about 120,000 and 350,000 people respectively (Meijer *et al.*, 1997; Appanah *et al.*, 1999; Haurri, 1999). The Cameroon rattan sector, one of the best in Africa employs only about 2000 people.

The Philippines has the highest skill among workers in Asia. Filipino designers and manufacturers are among the best. They have long experience and are highly skilled especially for high quality products (Rice, 1995). That is why in order to increase the skill input in production, furniture manufacturers in Indonesia have hired Filipino factory managers and labourers (Belcher, 1997). The rattan-processing firms in the Philippines have become much more mechanized some three decades ago.

Trading and export

The Philippines is one of the oldest suppliers of rattan products in the international market. Other countries are Indonesia, Malaysia, Singapore, China, Taiwan, Hong Kong, Thailand, Italy, Germany, Spain, UK and France. Filipino rattan industry is internationally competitive (Koontz, 1995) and its manufacturers and exporters have built up well-established market links throughout the world. Thus, over the years, the country has secured a good position in the international export of finished products as shown in Table 1 (Koontz, 1995; Booth, 1995a,b; FAO, 2000). In recent years, the Philippines has exported rattan furniture to USA, Japan, Austria, UK, France, Belgium, and New Zealand. However, since 1988, due to certain factors, the Philippines rattan sector has shown a declining trend. During the last ten years Indonesia has become the largest manufacturer of rattan products (Haurri, 1999).

Depletion of rattan resources

The decreasing availability of raw material and the stiff competition in export market are posing threat to rattan sector in the Philippines. Since the end of 1980s the Philippines has been facing a severe shortage in supply of rattans. The production of rattan poles has decreased from 1990 to 2004. As indicated by the Forestry Master Plan for Forestry Development (1990), (PCARRD, 1991) since the 1980s the supplies from natural forests are insufficient to meet the industry's demand (Table 2).

It is estimated that by 2010, the shortage will be around 640 million linear meters. In 1998, for example, the requirement for the production of exported rattan furniture was estimated at 36 to 108 million linear meters while production was only 10.46 million linear meters (Tesoro, 2000). The processors and manufacturers are constrained by the scarcity of raw material. The increasing distance from the settlements or

Table 1. Exports of rattan finished products from some South East Asian countries (US\$ million)

Year	Philippines		Indonesia	Malaysia*
	Furniture	All finished products	All finished products	Furniture
1980	41.9	-	-	-
1981	45.9	-	5.2	-
1982	47.2	-	8.5	-
1983	56.5	-	9.2	-
1984	60.2	-	9.7	-
1985	59.2	-	12.6	-
1986	62.5	-	15.8	-
1987	94.9	-	59.7	3.6
1988	135.2	244 (year 1988/89)	120.1	11.5
1989	137.7	244 (year 1988/89)	157.3	14.9
1990	121.3	-	222.0	18.0
1991	118.2	-	233.3	24.8
1992	115.6	-	303.5	26.9
1993	114.2	188.6	330.4	29.7
1994	122.91	241.6	376	36.8
1995	119.7	-	368	30.1
1996	119.2	-	Above 350	26.6
1997	123.01	-	-	-
1998	108.2	123	-	-
1999	113.9	-	300	-

* Exchange rate considered: 1 US\$ = 3.039 Ringgit (RM); -: Data not available.

Source: Meijr *et al.* (1997); Belcher, (1997); Appanah *et al.* (1997); DENR (1999); Palis (2002).

transportation network to the gathering site shows the decreasing availability of rattan from accessible habitats. In many places, rattan collectors have to spend more time and go deeper into the forest. For example, they have to travel as much as 17 km in Sitio Manggapin and Sitio Kalakwasa, Puerto Princesa City (Palis, 2002) and 18 km in Batong Labang, Ilagan, Isabela (Defo, 2005) for collection of rattan. The depletion of resources is due to many factors:

- Deforestation caused by logging, fuel wood gathering and extensive shifting cultivation. The forest area in the Philippines decreased from 21 million ha in the 1900s to 5.5 million ha in 1999 (Tan, 2000);
- Wasteful harvesting practices due to the limited technical means available to gatherers (Aquino *et al.*, 1992; Defo, 2005) and
- Over-exploitation of rattan resources. Harvesting is often highly concentrated in time and space and does not allow rattan to regenerate adequately. Over-harvesting is due to increasing demand and low payment to gatherers (Wakker, 1991; Defo, 2005), corruption, weaknesses of laws and regulations *etc.* (Polet, 1991; Rice, 1995; Belcher, 1997, 1999).

Table 2. Estimates of shortage of rattan poles from natural stands (in million linear meters)

Year	Demand		Supply		Gap	
	Small dia.	Large dia.	Small dia.	Large dia.	Small dia.	Large dia.
1989	116.0	77.3	110.9	65.5	5.1	11.8
1990	127.6	85.1	110.9	65.5	16.7	19.6
1995	205.6	137.0	110.9	65.5	94.7	71.5
2000	262.3	174.9	110.9	65.5	151.4	109.4
2005	334.9	223.2	110.9	65.5	223.9	158.3
2010	491.9	327.9	110.9	65.5	381.0	262.4
2015	722.8	481.9	110.9	65.5	611.9	416.3

Source: Forestry Master Plan for Forestry Development (1990) reported by (PCARRD, 1991).

Illegal logging, demographic pressure and forest clearance for agricultural purposes and wasteful harvesting practices are still rampant. Till now, no concrete efforts have been made to tackle the rapid resource depletion. Also, there have been relatively less efforts to intensify raw material production as compared to other countries. For example, by the end of 1990s, Malaysia established more than 40,000 ha of rattan plantations and Indonesia cultivated more than 37,000 ha of high commercial value species (Sastry, 2001), while the Philippines, has established only a total of 25,000 ha of rattan plantation (Baja-Lapis, 1999). These achievements are minimal compared with the needs established by the Master Plan (Wakker, 1991) at 480,000 ha by the year 2000. This low involvement in rattan cultivation may not change in the near future due to persistent disincentives for plantation establishment including the long gestation period, the tenure security issue, financial constraints, small net profit compared with other land uses, the uncertainty about future selling prices (Wakker, 1991; Ricc, 1995; Belcher, 1999). This situation is a vital concern for the Philippines taking into consideration the fact that a regular supply of quality rattan is one of the most important requirements for maintaining a huge and sophisticated industry. That is why the country has been importing rattan since the 1980s (DENR, 1999; Defo, 2005) and some of its manufacturers are using wood and iron as substitute to rattan for certain parts of furniture (Defo, 2005).

Raw material import

Presently the Philippines depends on the foreign markets for the supply of raw material. Some Filipino manufacturers have started importing rattan from Indonesia, China, Australia, Hong Kong, Singapore, Vietnam, Laos PDR, Myanmar, Malaysia and Papua New Guinea (Belcher, 1997; Baja-Lapis, 1999; DENR, 1999; Defo, 2005a;). Other commodities like plywood and rubber wood are also imported for furniture manufacturing. Table 3 presents the raw rattan imports. This dependence on imported raw material makes the Philippines rattan sector vulnerable to many external factors. For example, after the ban on export of raw material and semi-finished rattan products by Indonesia in 1988/1989 (Meijer *et al.*, 1997), the Philippines rattan sector started

Table 3. Imports of rattan pole, split and core by the Philippines

Year	Tonnes	Value in US \$
1990	3,000.00	-
1993	400.00	-
1994	-	-
1995	247.66	756,288
1996	266.81	706,000
1997	-	-
1998	112.97	-
1999	237.49	746,333

Source: (Koontz, 1995; Baja-Lapis, 1999; DENR, 1999; Tesoro, 2000).

encountering a critical situation. The situation has slightly improved as exports of raw rattans were deregulated in 1999 (Sastry, 2001). However, uncertainty existing due to total dependence on imported raw material, the Philippines rattan sector is still in a very uncomfortable position. The industry cannot maintain itself or grow on a sustainable basis without a steady supply of cheap and good quality rattan. Import prices and quality can fluctuate and in many cases it is expensive. Thus, the Philippines rattan products are less competitive in the world market as compared to Indonesia (Belcher, 1997; Meijer *et al.*, 1997; Appanah *et al.*, 1999; DENR, 1999; Palis, 2002 Defo, 2005).

Decline in processing and export

Export market accounts for 75 to 90 per cent of total value of the Philippines finished products (Koontz, 1995). Domestic market is very limited. Such total dependence on overseas markets for the sale of finished products can be considered very critical for rattan industry because these markets can be subject to trade barriers. There can be other constraints like competition, unrealistic foreign exchange rate, mandated wages, high shipping cost, and lack of government support (Booth, 1995a,b). Relatively small factories in the Philippines have withdrawn from the international market. They cannot turn to the domestic market as there is not much market for their high quality furniture because of prohibitive prices. Thus, the future of rattan industry in the Philippines is not very bright, unless concrete efforts are made to enhance the resource base and revive the industry and trade.

CONCLUSIONS

The unsustainable use of the rattan resource base has led to increasing dependence on imported raw material. Also, during the recent years, the Philippines has lost its dominant position in the world market in rattan export. So far, the country has not taken necessary measures to ensure a viable functioning and promote further growth of its rattan sector. Thus, the future of rattan industry in the Philippines is bleak.

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