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Rattan-based enterprises in the northeastern Bangladesh

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Abstract: This study explores the current situation, trends, problems and prospects of rattan-based furniture industry in the northeastern part of Bangladesh. The research mainly focuses on issues such as procurement and management of rattan in the study area and its role as raw material in cottage industry as well as income generation for local communities. The findings reveal that scarcity and inadequate supply of raw material is the key problem, which is further aggravated by poor quality in terms of maturity, dimension and finishing. Besides the lack of promotional activities, technological drawbacks and absence of research activities are also dwarfing the sector's potential. Key recommendations for improvement include provision of sustained supply of raw materials by the government organizations concerned, micro credit support from reputed service providers, regular arrangement of training, marketing and promotional activities by NGOs. Studies on floristic and silvicultural characteristics, farmers' participation and preferences, gender and equity issues and policy and management aspects need to be carried out.

Key words: Rattan furniture, cottage industry, Bangladesh.

INTRODUCTION

Rattan, one of the significant non-wood forest products, constitutes an integral part of rural livelihood systems in the tropical world. It not only serves as a major source of raw material for industries, but also supports day-to-day subsistence of the people residing in the vicinity of forest areas in the form of alternative income generation, housing and other constructional purposes, handicrafts, *etc.* (Sastry, 2002). In southeast Asia, the rattan furniture industry, in general, plays a major role in terms of value and output, and also the recent trends indicate a remarkable growth. The situation in Bangladesh, however, is rather gloomy; rattan furniture constitutes less than 4 per cent of the entire furniture trade in the country.

Rattan, a climbing palm belonging to the Calamoideae, constitutes an integral part of tropical forest ecosystem, and includes 13 genera and about 600 species in the world

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(Uhl and Dransfield, 1987). Of these, only *Calamus* and *Daemonorops* are available in Bangladesh. Ten species of *Calamus* and one species of *Daemonorops*, namely *D. jenkinsianus*, represent the main rattan stock of Bangladesh. Although there is a general recognition of its economic importance, the true potential of rattan has yet to be fully explored in Bangladesh. With rampant and systematic destruction of forests and habitats, the rattan stock has been depleted, and the rattan-based cottage industries have suffered severe paucity of raw material. Sylhet, the northeastern region of the country, enjoyed abundance of rattan as late as the 1980s, and a great number of rattan-based furniture industries mushroomed. The rapid population growth and indiscriminate destruction and conversion of forested tracts have made the once abundant rattan into an increasingly scarce item in Sylhet, and caused, as popular estimates suggest, some 40 per cent of the rattan-based industries to be out of operation over the last two decades.

Research, especially on the management, use and marketing of rattan, is strikingly limited in Bangladesh and for the most part, focuses on ecological and silvicultural aspects of cane production. Siddiqi *et al.* (1996), for example, have studied germination and seedling growth of "Jali bet" (*Calamus tenuis*). Ara (1997) focused on the taxonomy and ecology of rattans in selected parts of Bangladesh. Alam (1991) made an overview of the current status of production and stock of rattan in the country. Rashid *et al.* (1993) examined the popular plantation techniques of rattan. Mohiuddin *et al.* (1988) prescribed some easy techniques of identifying different rattan species. Another technical study by Mohiuddin *et al.* (1986) examined seed germination techniques and suggested an optimum timing of seedling transfer from seedbed to polythene bags. Similar technical research, mainly focused on germination, seedling growth, and propagation techniques of selected rattan species, has been carried out by the Bangladesh Forest Research Institute (BFRI) (Siddiqi *et al.*, 1996; Banik, 2002). Siddiqui *et al.* (2003) developed a handbook (manual) on the cultivation and production of rattan and associated home-based enterprises. Recently, the International Network for Bamboo and Rattan (INBAR) has initiated a project for the promotion and product development of rattan in SAARC countries in which Bangladesh is acting as the 'lead country'.

In the above context, this study attempts to explore the current situation, trends, problems and prospects of rattan-based furniture industry in Sylhet, one of the major hubs of business as well as the last remaining rattan growing areas in the country. The study mainly focuses on issues such as procurement and management of rattan in the study area, and its role as raw material in cottage industry as well as income generation for local communities.

METHODOLOGY

The city of Sylhet with several rattan-based furniture industries was selected for the study. The total area of the city corporation is 26.5 km^2 with a population of about

320,000 distributed over 27 wards. The study spanned over six months. An in-depth survey based on a semi-structured questionnaire, complemented by interviews with a cross section of people, was used for field data collection. There are 60 rattan-based cottage industries in the study area. A multi-stage sampling technique was used. A 50 per cent sample (*i.e.*, 30 industries) was drawn randomly, and interviews were carried out with the various stakeholders concerned with the sector, such as industry/enterprise owners, skilled workers, vendors, wholesalers, retailers and labourers. Weekly local markets of raw rattan were also visited to collect information on the primary trade in rattan in the locality.

RESULTS AND DISCUSSION

Labour involvement in the industry

Each enterprise employs two categories of labourers, temporary and permanent. The temporary labourers are employed on the basis of product demand during particular days and seasons; accordingly the rate of employment varies significantly depending

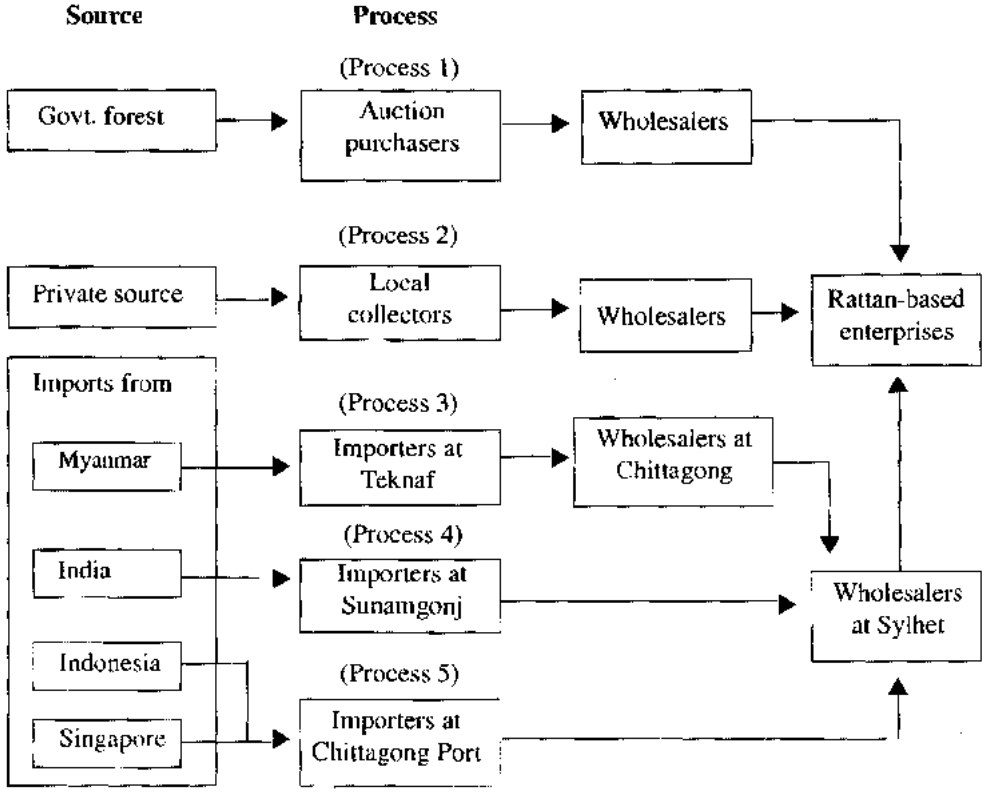

Figure 1. Market channel for the raw materials of rattan-based enterprises.

on the seasonal market demand. The average permanent labour size is 2.4, while for temporary labour, it is 8.53. The key activity areas for the labourers include management of the showrooms and display centres, procurement of raw materials, and administration of sales and marketing activities. Sometimes the family members are also engaged in the industry as 'workers at home'. The wages of the labourers range from Taka (Tk) 100 to 150 (1 USD = 65 Tk), which vary according to their level of skills and expertise. The average wage per day is Tk 120.

Raw materials

Among various species of rattans, "Golla" (*Daemonorops jenkinsianus*) is used in large quantity; others include "Jali" (*Calamus tenuis*), "Karak" (*C. latifolius*), "Sundhi" (*C. guruba*), *etc.* "Golla" and "Karak" are used mainly for structuring the mainframe of products, while other species are used for binding and artistic design purposes, especially weaving and matting required in the production process. Some enterprise owners mix small quantity of bamboo and "Patipata"(*Schumannianthus dichotoma*) as raw material along with rattan. Of late, synthetic binding materials are also used in the rattan enterprises in consideration of their longer durability.

Raw materials are procured from both local and international sources. The international source includes Myanmar, India, Indonesia and Singapore. Local traders in Sylhet collect rattan from government forests and private sources as well as the rattan growing areas in the wetlands.

Government forests

Calamus spp. are regenerated both naturally and artificially in the marshy lands and semi-evergreen forests of Sylhet region. The major market channel for the raw materials of rattan-based industries is depicted in Figure 1. The Forest Department (FD) has raised 1245 ha of plantations under the Bamboo, Cane and Patipata Project in Sylhet region. The FD sells mature cane through auction. The purchasers compete in the bid and collect processed and unprocessed cane. Wholesalers, in turn, buy from the bidders, and supply to the rattan-based enterprises.

Private sources

The private sources of raw rattan include the marshy areas of Sylhet, where rattan grows naturally. The swamp forest of Sylhet region contains major concentrations of naturally grown rattan. Gowainghat, Jaintapur, Companigonj, Jakigonj and Jaflong areas are rich in rattan. Rattans collected from these major growing areas are accumulated in some selected outreach markets namely, Ghassitula, Sunamgong, Haripur bazaar, Baralekha, Srimangal and Salutikor. The traders procure the raw material through local intermediary collectors, transport to Sylhet city and then distribute to various rattan-based enterprises.

Table 1. Price range of different species of rattans, units and dimensions

Species	Unit of transaction	Specification	Price range (Tk)
D. jenkinsianus	Per piece	Dia 100 mm, length 3.6 m (imported)	120-150
D. jenkinsianus	Per piece	Dia 100 mm, length 3.6 m (local)	20-30
D. jenkinsianus	Per piece	Dia 50 mm, length 3.6 m (imported)	75-100
C. tenuis	1 *mora**	Small diameter	400-800
C. tenuis	1 kg	Very small in diameter	300
C. latifolius	Per piece	3.6-4.8 m long	120-150

Source: Field survey ; * 1 *mora* = 64 pieces

Imports

A good quantity of raw material is collected from Myanmar. Those collected by the importers from Teknaf are then transported to Chittagong and Sylhet. Import from Indonesia and Singapore reaches through the seaport of Chittagong. The traders in Sylhet collect cane from the Chittagong Port. A good quantity of cane comes from India through the Sunamganj border area.

Pricing pattern

The price of rattan as raw material varies greatly depending on such considerations as species, origin, and maturity of cane, length, and diameter. The price also fluctuates seasonally, and according to market demand. Table 1 presents a broad picture of the price range of rattan in the study area.

Local versus imported raw material

In comparison with many developing countries, rattan processing in Bangladesh is still at a craft level, carried out in a great number of tiny workshops (Aguilar and Miralao, 1985). The rattans collected locally from the government and non-government sources are often of poor quality. The collectors usually obtain immature canes from private sources. Even the government source cannot ensure supply of mature canes. The products from such raw material are of low grade and susceptible to insect attack easily. As a result, the local rattan enterprises tend to depend on imports to get matured raw material.

Products range

A wide range of products is produced in the rattan-based enterprises. The products include furniture, household articles of various types, and novelty items. The products meet the local and regional demand. A good quantity of finished products is also sold to foreign customers and tourists from different countries including India, England, the Middle East, the USA and Canada. A range of products from rattan is listed in Table 2.

Table 2. List of products produced from the rattan enterprises

Furniture	Sofa set, Bed, Dressing table, Dining table, Wardrobe, Bookshelf, Easy chair, Rocking chair, Garden table and chair
Household articles	Tea tray, Shelf for kitchen articles, Fruit tray, Dining table, Trolley, Mirror frame, Coat hanger, Flower stand, Magazine box, Laundry box
Novelties and others	Flower box, Hand bag, Cassette box, Paper box, Telephone desk, Table lamp, Partition for restaurants, Walking stick, Wall shelf, Cradle

Demand and supply dynamics

During the rainy season it becomes difficult to harvest local rattans, as the groves remain under water for a long period. Seasoning of harvested canes is also difficult. During this lean period, scarcity pushes the market prices to an exhorbitant level. The cost of transportation, however, is significantly reduced during the rainy season owing to the increased use of boats. In terms of product demand, the winter season is more attractive. Tourists come from all around and thus the market demand is increased manifold. During these days the enterprises employ more labour to meet the demand of products.

Economics of the industry

The capital investment varies among enterprises in the study area. The lowest investment is found to be Tk 30,000 and the highest is about Tk 1,500,000. Average capital investment is Tk 290,000. There are three distinct categories of investment: Small (up to Tk 100,000), Medium (up to Tk 300,000) and Large (> Tk 300,000). There were five, six and four small, medium and large-scale enterprises respectively.

Some 40 per cent of the respondent enterprise owners reported to have started their business drawing on self-finance, while another 33.3 per cent depended on loans from banks, and the rest 26.7 per cent tapped both sources. Most entrepreneurs expressed concern about the general scarcity of capital and the difficulty in resource mobilization, which pose a major hurdle towards expanding their enterprises.

CONCLUSION

The general scarcity and inadequate supply of raw material, as most respondents of the study noted, constitute the main constraint towards the development of the industry. The constrained local supply base, in turn, forces the entrepreneurs to depend mainly on imports. Besides, locally procured canes are of poor quality in terms of maturity, dimension and finishing. Marketing of rattan products is still confined to a relatively small geographic area (including the greater Sylhet region). Besides, there has been little or no significant effort to take up promotional activities to explore and tap the

international market by the government. Finally, technological support and research on this sector are limited. In the absence of systematic research and technology-based quality control and improvement, the quality of rattan products in the study area has remained generally low, and often failed to compete with international production and market systems.

Despite the formidable list of problems, the prospects and potential benefits of promoting the rattan-based enterprise sector are increasingly recognized (Manokaran, 1990; IFAD, 1991). Drawing on the consultations with a variety of respondents and the empirical observations, the following immediate measures are recommended:

1. The Forest Department may ensure sustainable supply of quality raw material by raising and scientifically managing the plantations. Some major concentrations of rattan growing areas may be earmarked for more intensive protection and improvement.
2. The government may consider establishing a specialised facility to carry out research and training on various aspects of product development and marketing, including improved processing technology. The Bangladesh Forest Research Institute, in its research agenda hardly provides any exclusive scope for rattan research.
3. This sector deserves attention from the country's well-established and reputed micro-credit service providers both at the public and non-government levels.
4. The NGOs have clear role to play in widening and consolidating the market network for rattan-based enterprises.
5. Given the great potential of this sector, there is an immediate need for more research, both of academic and problem-solving nature, on rattan-based enterprises, as at present our knowledge on the subject is at best marginal. Some possible areas of research include gender and equity issues, floristic and silvicultural characteristics, farmers' participation and preferences, and policy and management aspects.

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