

Development of regional bamboo markets in India through community based market information services

G.S. Rawat¹ and C. J. Singh^{2*}

¹*Indian Council of Forestry Research and Education, Dehradun, India*

²*Bamboo Technical Support Group, Directorate of Research, R. No.24, Indian Council of Forestry Research and Education, Dehradun, India*

Abstract: The modern approach of marketing relies upon the sound and effective information management system. However, given the present bamboo markets situation, lack of knowledge of nature of operation, makes the producer's interests unsafe. Keeping view of existing situation, a detailed survey in 23 markets selected in Himachal Pradesh, Uttarakhand and Uttar Pradesh, was undertaken to assess the scope of developing a need based Market Information Services (MIS) system to boost regional bamboo trade in the country. Important markets surveyed for the present study include Nazibabad, Hapur, Aligarh, Kangra, Hamirpur, Dharamshala and Haridwar. Results of survey indicated the low level of knowledge, awareness and unavailability of a system acting as interface between producer and buyers. Decision making ability of producers during the marketing operations is largely affected by their ignorance and selection of improper channels of sale.

Keywords: Market Information Services (MIS), bamboo trade, demand, consumption.

INTRODUCTION

International trade of bamboo is estimated to the tune of US\$ 10 billion and is expected to reach US\$ 20 billion by 2015. Indian share in the global bamboo market is 4 per cent and is expected to touch the level of Rs. 26000 crores (US\$ 5.7 billions) by 2015 (Planning Commission, Govt. of India, 2003). In India, the total demand of various bamboo consuming sectors is estimated at 26.9 million tonnes against the estimated supply of 13.47 million tonnes *i.e.*, only half of the total demand. Projected estimates of National Bamboo Economy are based on value added products and their potential to penetrate the competitive markets (Pandey and Pandey, 2008). Bamboo markets are specialized niche market with few buyers practising monopoly in the trade. Keeping abreast of bamboo market specialty, nature, seasonality and mechanism, a sound information based marketing system is needed to realize the targets of National Bamboo Economy by 2015.

* To whom correspondence should be addressed; E mail: c.jsingh1@gmail.com

Marketing is largely an information-based, isoft technology. Efficient marketing requires relevant quantitative and qualitative information regularly, reliably and at the lowest possible cost. Information is needed on markets (demand, end-uses, supply), marketing factors (products, marketing and distribution channels, promotion and prices), competition, marketing environment (comprising social, economic, political, technological, regulatory, legal, cultural and infrastructural) and on institutions related to marketing. For developing countries to move towards more equitable and sustainable development require attention to factors that inhibit the market participation of the poorer segments of rural population, including small-scale farmers (Crowder, 1997;

Vishwakarma, *et al.*, 1998). The modern approach to foster the marketing of forest produce relies upon the sound and effective information management system (Gandhi, 2002). However, existing regimes of marketing are insufficient to boost the bamboo based economy. So far, information based marketing tools have been used for few forest produce only and long lasting impacts of system could not be realized owing to factors like poor penetration to the market, poor extension services, ignorant producers and absence of institutionalized mechanism.

Market information services (MIS)

Highly disorganized bamboo markets, monopolized by big traders, offer little benefits to the market segments operating at lower levels. Absence of a common interface to exchange information complicates the situation reflecting the inability of various market functionaries in taking decisions and devising strategies of proper marketing. Consequently, market operations are purely based on the traditional knowledge and practices coupled with experiences of producers and traders who operate independently. Keeping view of present Indian bamboo markets situation, an interface is strongly needed that can help the growers, middlemen, artisans, traders, among others to devise suitable marketing strategies for the sale of their produce while optimizing the intended benefits. Development and establishment of Market Information Services (MIS) that can provide information and a common interface to the bamboo stakeholders, hold the keys to overcome the existing complex situation of bamboo marketing. Market information relates to generating information about markets, means of accessing the markets, market environment and competition (Gera *et al.*, 2003). The present study was conducted with the objectives to assess a) need of MIS at local level, b) existing market mechanism and c) to quantify the size of bamboo market in important markets of Northern India.

METHODOLOGY

Under the existing complexity and the lack of desired knowledge of the nature and operation of the marketing of forest based and agro-based bamboo products, a market survey was conducted to develop an understanding of the current system. A total of

23 markets were surveyed in three states of India, *viz.*, Himachal Pradesh, Uttar Pradesh and Uttarakhand. The survey explored the marketing channel from the producer level to end user. The survey also probed the nature of operations at each level, the decisions being made at each level and the information needs for this decision-making through well structured questionnaires. Assessment of the local situation with respect to interest among the various stakeholders to generate MIS, market potential, *viz.*, consumption patterns and quantification of consumption of bamboo resources was undertaken by randomly selecting and interviewing farmers, contractors, traders and local artisans in various villages and markets surveyed during the study. The survey also assessed the sources of suitable information and availability options to develop an integrated mechanism/system for information collection and dissemination.

RESULTS AND DISCUSSIONS

Brief profile of the markets studied

It was observed that major markets having fairly large annual influx and outflux of bamboo are situated in Uttar Pradesh. It can be considered as the major center of the North Indian bamboo trade as number of market functionaries operational in each market were the highest among all the markets surveyed during the study (Table 1). Considerable quantities of bamboos are consumed locally as well as exported to neighbouring states. Himachal Pradesh is an important production center of good quality bamboo as per the observations reported by respondents. It fulfills the bamboo needs of important markets of Ambala, Ludhiana, Amritsar, Jalandhar and Hoshiarpur, while the markets in Uttarakhand support hill bamboo based trade that provides livelihood opportunities to rural artisans of hilly areas.

Table 1. A brief profile of the surveyed markets

S. No.	State	No. of Market Surveyed	No. of traders	No. of retailers
1.	Uttar Pradesh	10	54	176
2.	Himachal Pradesh	8	0	37
3.	Uttarakhand	5	7	9

Annual consumption potential of bamboo markets

The major functionaries of the markets included traders, commission agents, contractors and consumers (urban and rural). The results indicated that the consumption potential of markets of Uttar Pradesh is highest due to high demand of bamboo in rural areas followed by Uttarakhand having 27.1 thousand tonnes of total consumption. While it was recorded lowest in the markets of Himachal Pradesh due to the smaller size of bamboo market (Fig. 1).

As regards the general consumption, rural segment of consumer accounts for most of the bamboo consumption where it is used for making supporting framework for

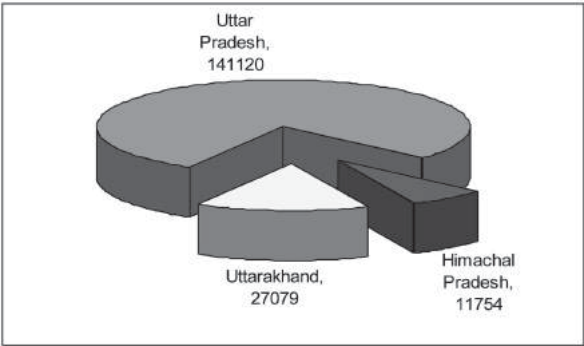


Figure 1. Bamboo consumption (tonnes/year) in selected markets of Northern India.

thatched roof, cots, agricultural use and handles of agricultural implements. The urban consumers of bamboo include, contractors engaged in building constructions, vendors and hotel/*dhaba* owners where they use split bamboo to make perforated fence known locally as *Zafri* which is used as decorative boundary wall around motels and restaurants and for making temporary roofs of vegetable shops (vendors). Maximum consumption was reported for construction sectors, where bamboo finds major use in scaffoldings and rural house construction. However, in Himachal Pradesh maximum consumption of bamboo was observed in agriculture where it is used in fencing around fields and as props to support horticultural crops (Table 2).

Scenario analysis

Ironical situation exists in the bamboo markets. In the existing utilization pattern of bamboo, the producers and end-users belong to the similar professional occupational class. Prevailing scenario of practices of bamboo marketing is found limited to portraying them as physical activities which include haulage, sorting, grading, processing and storage. Innovation and value-based marketing practices are rare in spite of the fact that,

Table 2. Local consumption pattern in the selected markets

S. No.	Use	Annual consumption (%)		
		Uttar Pradesh	Himachal Pradesh	Uttarakhand
1.	Scaffoldings	18.0	13.1	23.46
2.	Fencing	-	33.1	-
3.	Agricultural use (as props for horticultural crops)	2.0	22	4.72
4.	Event organization	-	-	8.46
5.	Ladder	5.0	-	-
6.	House construction	35.0	26	51.78
7.	Cot	15.0	-	17.5
8.	Net (<i>Zafri</i>)	15.0	-	-
9.	Other	10.0	5.6	17.53

ultimately, the buyer is directed by the values associated with the product that creates a spot in his mind. The major consumers of the bamboo in northern India are the farmers and small contractors who utilize bamboo for house construction and scaffoldings, respectively. They have generally poor marketing potentials (Table 3).

Table 3. Existing status of information based bamboo marketing

S. No.	MIS Component	Status of information	Existing source of information
1.	Market	Poor	Individual knowledge
2.	Market functionaries	-do-	-do-
3.	Production pattern	-do-	Individual knowledge and personal interactions
4.	Consumption pattern	-do-	-do-
5.	Market price and price trend	-do-	Personal interactions
6.	Technical knowledge	-do-	Nil

Improvement in marketing capabilities is required at all the levels, from the bamboo growers to operators at primary processing industries engaged in value addition activities. Bamboos are generally marketed in private sector where intermediaries keep a strong control over market and often exploit producer's ignorance or lack of knowledge about market mechanism. Therefore, access to market information is crucial for creating awareness of marketing practices among various stakeholders which would lead to proper sharing of gains at all the levels.

Scope of generating MIS for bamboo and its products was studied in detail during the market surveys. The interests among the various stakeholders for MIS was found to be affected by the factors like low profits, less diversified uses, monopoly of traders, poor penetration in the markets, among others. Inadequacy of current market information regimes, affects not only the producers but also the traders and other stakeholders. Traders were observed facing the complexity of the situation due to lack of accessibility to information on the production scenario of bamboo and have to sustain on the imported raw material from other states by incurring high transportation costs. Beside this, they also lack knowledge about the quality and seasonal impact of raw and processed products. Therefore, information on the production and availability of quality material, seasonality, marketing channels, among others advocate for the development and setting up an MIS based system. Each market functionary operates at his own capabilities due to lack of proper information. There exists a cartel system among the traders to which producer or small retailers find difficult to break which leads to unequal distribution of profit. This inequality makes the situation worse for the producers who are ignorant, unaware and refrained of modern approach of marketing.

Need of MIS at local level

Bamboo utilization in India is established since ages, yet on commercial grounds, it

lags behind China and other Asian countries which are leading in bamboo trade at the international platform. Bamboo markets all over the states of the country are monopolized by the traders who have comparatively well established links and better knowledge about the bamboo trade. On the other hand, producers and marginal workers like artisans are often ignorant and exploited by the traders. The regional bamboo economies of the country are entirely dependent on the traditional methods of utilization and marketing. The present study revealed the need for the development of community based MIS for bamboo and its products among the producer and traders and other stakeholders. Based on the responses of various stakeholders the components of MIS needed to be developed through regular information dissemination (Table 4).

Table 4. Information needed to develop MIS at local level

Components of MIS	Preferred services requiring regular information flow	Most preferred means of information dissemination
Markets	Commercially important markets of bamboo with their potential for bamboo <i>i.e.</i> annual/seasonal consumption and demand, prevailing marketing channels and price spread associated with each channel, impact of seasonality on trade, accessibility, market mechanism, various functionaries/intermediateries and their role in the procurement and sale.	Quarterly Newsletters/ magazines and internet
Production	Quantity of bamboo available in various production zones, quality of material, availability, extent of primary processing at source.	Monthly Newsletters, local daily
Consumption	Bamboo consuming sectors and their demand, their annual consumption pattern	Monthly Newsletters, magazines, internet
Price	Market wise price of bamboo, channels of sale and associated price at each level,	Monthly Newsletters, local daily
Price trend	Seasonal or quarterly variation in price, when to sell, where to sell and whom to sell	-do-
Selling	How to sell, quantity to sell, what price to sell, cost incurred, details about selling practices, services required, <i>etc.</i>	Quarterly Newsletters, radio
Customer	Details at local level with spatio-temporal information	-do-
Buying	What quantity to buy, what price to buy, quality, services, <i>etc.</i>	Newsletters/internet
Technical	Technical knowledge to provide support in decision-making ability of producers and buyers based on up to date information pertaining to selection of species for cultivation, production of quality material, profitable marketing channel, economic harvesting age, economical methods of harvesting, marketing costs, procurement of quality material, <i>etc.</i>	Quarterly/half yearly Newsletters

What needs to be done?

Setting up of MIS based marketing system needs regular and reliable baseline information sourced from all level of transactions, *i.e.* at producer, middlemen, trader and end-user levels. Key tasks and decisions to devise strategies for the development of a marketing mix should be based on the information collected from data facts at ground level. Most of the bamboo products manufacturers require specific species of bamboo and such entrepreneurs/consumers/manufacturers are located in specific areas: flute makers are located at Pilibhit (U.P.), kite manufacturers require thin walled and long internode bamboo (*edullu bamboo*—*Schizostachyum dullooa*) which is supplied from Assam, Meghalaya and Manipur. Beside this, many handicrafts, furniture and cottage industrial units have been established in the last decade which require bamboo of specific dimensions and quality. Expertise is required to interpret the information and its effective dissemination to achieve the expected outcomes. Portraying of physical market information should be accompanied by following standardized research methodologies suitable for region specific trade of bamboo. Old focus of marketing which rely upon traditional practices, *i.e.* individual knowledge and personal interaction only should be replaced by new marketing approaches relying upon tailored market information generated through market research and planning.

Development of tailored MIS system through networking

Networking between various stakeholders to provide both way flow of information acts as the core of MIS and plays a dominating role in the functioning and survival of the system (GVEPJS, 2007). Networking enables every stakeholder to get connected to more than one stakeholder simultaneously. For setting up networking based development of MIS at regional level, capacity building initiatives through training in marketing techniques and information exploitation methods can enhance the knowledge and working of various functionaries of the bamboo trade (Wambles, 2005). Research and Development Institutes, Financial Institutions and Regulatory Organizations can provide the necessary institutionalization mechanism to ensure regular collection, interpretation, compilation and dissemination of market information (Fig. 2).

Constitution of local cooperatives or Community Based Organizations (CBOs) may provide producers with an opportunity to act in a group rather than individual, enabling them to access better marketing grounds for their produce. Producers operating individually in the market are often unable to break the monopoly of traders/buyers. Individual efforts are insignificant to arrange for proper and optimized supply. Cooperatives constituted of producers and traders can prove effective in the harvesting, storage, processing, value addition and transportation of the produce which in turn may increase the quantum of bamboo trade by eliminating the regional trade barriers with optimizing the profit for value as well as resources utilization.

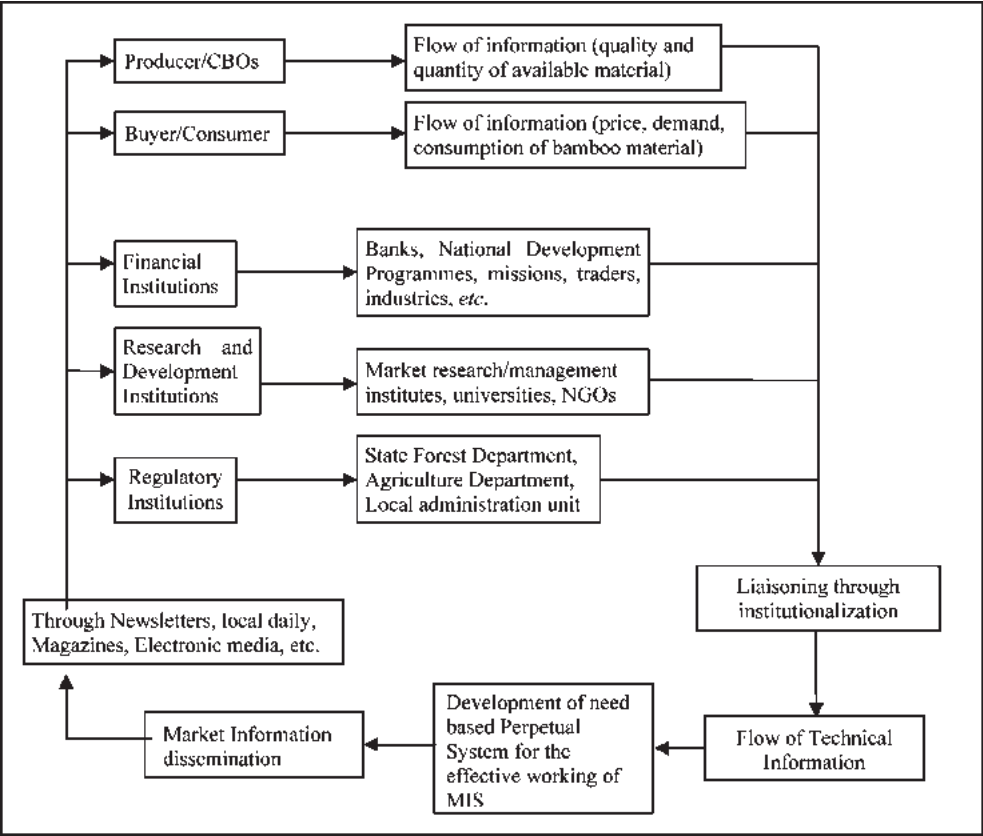


Figure 2. Suggested mechanism for the development of need based local market information system.

CONCLUSION

To remove/minimize the inequality for profit, bamboo stakeholders need to analyze the value chain in their markets and establish a competitive position. This may lead to improve the production and marketing mechanism scenario, product quality or reliability of supply. Long-term income growth will depend upon a successful response to growing demand for domestic forest commodities. This requires building supply networks that link producers to markets and increased production efficiency (*Scherr et al., 2003*). Presently ICFRE (2008) publishes a quarterly Timber/Bamboo Trade Bulletin in which prices of bamboo are published from important timber markets of the country. However, the information given in the bulletin pertains to prevailing bamboo market prices only. The other marketing details, viz., potential of various markets, marketing practices, production and consumption patterns, important trading junctions, among others are beyond the information range provided in the bulletin. In the liberalized trade environment, there are several aspects of bamboo marketing with which the farming community need to be familiarized for fully utilizing the emerging

trade opportunities. Collection and dissemination of information on marketing aspects are crucial and needs strengthening to incorporate the details pertaining MIS needs of stakeholders. Institutionalization to aggregate the scattered and segregated knowledge, for defining pricing policy, market operations and equitable distribution of profit could enhance the efficiency of current system. Leading institutes like ICFRE, Indian Council of Agricultural Research (ICAR) and State Forest Departments can support and regulate the two way flow of information by publishing a separate bamboo MIS bulletin for the welfare and growth of bamboo in the country.

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