

Make in India: Commercialization of Minor Forest Products in Tribal Areas of Madhya Pradesh

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ABSTRACT

The commercialization of Minor Forest Products (MFPs) in Tribal Areas of Madhya Pradesh are being promoted as a potential solution to the current high rates of malnutrition, the poor health of the rural population and the spread and intensification of poverty. Accomplishing these goals requires an understanding of how MFPs are extracted, processed and marketed in rural tribal areas. It is an important means for economic growth and sustainable forest management in local communities. Despite the potential of MFPs in poverty reduction and livelihoods improvement in rural tribal areas in Madhya Pradesh, little is known about their collection, procession, packaging and labelling. This paper examines the supply chain and commercialization of MFPs in rural tribal settings in Madhya Pradesh and their potential to contribute to poverty reduction, food security and livelihoods improvement. The results of the study indicated that MFPs contribute significantly to the food security, poverty reduction and livelihoods development in Tribal areas of Madhya Pradesh. The marketing of these products, however, faces a number of critical processing, labelling and marketing challenges. The MFPs marketing often occurs in an informal way, resulting in uncertainty about prices and yields. Marketing is basically done individually; it is unorganized, dispersed and farmers lack the necessary marketing skills and information required for optimal performance. Promoting the development and commercialization of these products on a permanent basis will enormously help to create more sustainable employment and income generation opportunities, enhance food security and improve the livelihoods of tribal people, their families and communities. The paper also identifies and analyse a number of critical factors that obstruct the commercialization of MFPs in Tribal areas of Madhya Pradesh and recommends strategies for redressing them.

Keywords-- Commercialization, Livelihood Improvement, Packaging, Poverty.

I. INTRODUCTION

In present global scenario Commercialization of Minor Forest Products (MFPs) is being recognized by conservation and development organisations as a

potential source of income for rural poor tribes. The collection and marketing of MFPs are being promoted as a potential solution to the current high rates of malnutrition and the poor health of rural population and the spread and intensification of poverty and it plays an important role in Make in India initiative. They play important role in Make in India and meeting the needs of rural communities for food, poverty decrease and sustainable management of forest resources and livelihoods improvement. Worldwide, it is estimated that 350 million people depends on forests as their primary source of income, food, nutrition and medicine. It is a traditional source of household income and sustenance in rural areas around the world. The commercialization of MFPs can provide an important means for poverty decrease, food security, nutrition and sustainable forest management in local communities. FAO estimated that 80% of the population of the developing world use MFPs to meet some of their health and nutritional needs. For the purposes of this paper, MFPs is defined as "biological resources of plant and animal origin, harvested from natural forests, artificial plantations, wooded land, farmlands, and trees outside forests and/ or domesticated.

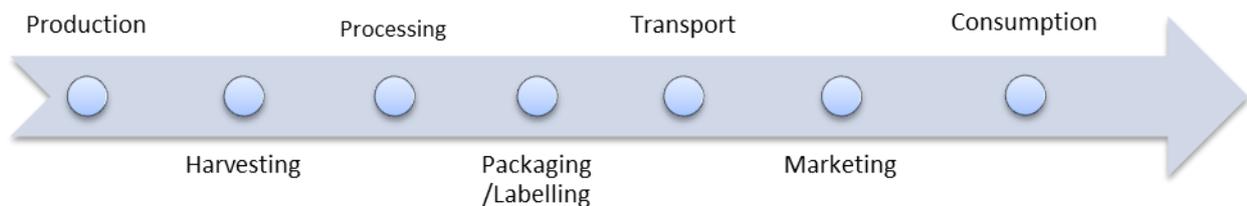
Unlike timber marketing which is extensively discussed in forestry literature, the knowledge of MFPs marketing is limited and sparse, particularly in the developing countries where collectors are mainly low-income earners who sell these products to supplement their income are not reported. The emphasis on global markets MFPs often overshadows the importance of local trade of MFPs in developing countries. MFPs continue to play an important role in meeting the needs of rural communities for food, income, poverty reduction and livelihood improvement and it also contribute in make in India initiatives. In Madhya Pradesh, it is estimated that 20-30per cent of the economically active population derives income from MFPs. Despite this potential role of MFPs, little is known about their collection, procession, utilization, packaging and labelling requirements in Madhya Pradesh and in international market. Their economic, social and environmental contribution remains largely undervalued

and understudied. This is partly due to lack of accurate and comprehensive data on MFPs and their value chain in Madhya Pradesh. Consequently, it is difficult to estimate the true economic, social and environmental importance of MFPs in poverty reduction, livelihood improvement and sustainable forest management but through Make in India initiatives its commercialization is very good and the collectors earn better money and marketability is globally access. Marketing is basically done independently, unorganized, dispersed and lacks the necessary marketing skills and information to gain leverage in the market. This paper examines the commercialization and marketing of MFPs through Make in India initiatives, especially food products and domestic use products (honey, mushrooms, snails and grass-cutters, mahua, harra, chirounji, sal, chirouta) in rural communities in Madhya Pradesh and their potential to contribute to poverty reduction and livelihoods improvement amongst forest dependent communities in Madhya Pradesh. The paper also identifies and analyses a number of dangerous factors that hinder the

commercialization of MFPs in the Madhya Pradesh and how the commercialization of MFP contribute in Make in India.

Value chains of MFPs: The paper also applies the value chain which is a business oriented approach (**adapted from Marshall *et al.***) that aims at making use of the best values of all stages of production, processing and marketing. The better the farmers, agents, processors, retailers and consumers cooperate, the higher will be the value generated for the individual actor at every stage of the value chain. The value chain defines the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical conversion and the input of different producer services), delivery to final consumers and final disposal after use.

The generic structure of the MFPs value chain is common to MFPs commercialization in Tribal areas Madhya Pradesh. The value chain includes the following activities: production, collection, processing, packaging/labelling, transport, marketing and consumption (Fig. 1).



Commercialization of MFPs: MFPs commercialization is defined as a process of increasing the value of MFPs in trade so as to increase income and employment opportunities, especially for poor tribes and otherwise disadvantaged people. This expectation is based on the well documented importance of many MFPs in rural livelihoods. To understand the implications of promoting MFPs commercialization, it is essential to know what and who are involved in the 'production-to-consumption system' or the 'value chain'. Defined as a complex web of companies and other factors that affect the production-to-consumption process, the term 'value chain' highlights the value that is realized in the process and how it is communicated. It is synonymous with terms such as 'supply chain', or 'market chain' used by Neumann and Hirsch in their review of MFPs commercialization. According to Marshall *et al.*, the most constraining processes of MFPs commercialization are the value chain activities of MFPs marketing and sales which are also the major bottleneck for many MFPs farmers in rural tribal areas Madhya Pradesh. The important challenges and major bottleneck of MFPs commercialization in forest dependent communities are the value chain activities of MFPs marketing and sales. Marketing activities and strategies result in making products available that satisfy consumers while making profits. The commercial functions involved in transferring goods from producer to consumer, 'marketing', is also a value chain activity. Kotler *et al.*

defined marketing as 'identifying and meeting human, social and organizational needs in a profitable way', and these 'needs' as 'individual or social needs for which one is willing to pay and which can be converted into profitable business prospects'. Marketing activities are numerous and varied because they basically include everything needed to get a product from the farm into the hands of the final consumer. Due to the fact that a wide variety of products and MFPs markets are prevalent, a generic approach towards the marketing of MFPs does not exist. Some products need to be marketed with customer marketing methods, while others require industrial marketing approaches.

II. MATERIALS AND METHODS

The Anuppur Districts shown in Fig. 2 was selected for the study. This district was selected because they constitute a major area for MFPs in Madhya Pradesh and have common natural, social and economic characteristics that indicate high forest dependence. In addition to a comprehensive review of literature on the topic, both primary and secondary data were collected and analysed. This field investigation was planned as an exploratory and qualitative research because little organised information of MFPs occurred in the study area. Several previous studies on MFPs which utilised exploratory and qualitative designs provide inspiration for modelling the present investigation.



A field survey in the Anuppur District was conducted between January and July 2015. Four main participatory research methods were used in conducting the field research. Key informant interviews, administration of questionnaires, participants' observations and stakeholder consultations were used to solicit views on various facets of the production processing, packaging and marketing chain of MFPs in Madhya Pradesh. Primary data was collected through direct in person interviews with various market players who are defined as individuals or organizations that have a role in the marketing chain and include collectors, dealers, producers, and sellers of MFPs. A total of 200 MFPs producers in the district were selected through purposeful sampling, while 40 sellers were selected

through the snowball sampling technique. These product categories (grass-cutters, mushrooms, snails and medicinal plants) were chosen because of their expected significance in the MFPs trade in the study area. Two non probability sampling methods were utilised: purposeful, where samples are selected out of the population for having certain features such as ease of access and represent ability and snowball, where respondents are found as a reference from other respondents. To ensure a broad based and objective data collection, a carefully designed open-ended questionnaire was also administered to key informants knowledgeable in the collection, processing and marketing of MFPs in the district. The data collected through administration of questionnaires, interviews and stakeholder consultations were analysed both quantitatively and qualitatively. The quantitative analysis was done using the Microsoft Excel.

III. RESULTS AND DISCUSSION

A total of 120 farmers/collectors of MFPs in the Anuppur District participated in this survey (Table 1), comprising of 40% females. The age distribution of the respondents ranged between 18 years and over 65 years. About 64% of the respondents were in the age group of 31-50 and the economically active group was also found within this age group.

Table 1. Social characteristics of respondents

Age	%	Marital Status	%	Family Size	%	Education	%
18-30 Year	23.3	Married	78.2	Less than 5 people	39.1	No School	16.6
31-50 Year	63.9	Single	12.8	5-7 people	40.6	Primary	57.9
51-65 Year	11.3	Divorced	5.5	8-12 people	18.0	Higher Sec. Sch.	18.8
Above 65 Year	1.5	Widow	3.5	13-15 people	0.8	Under Graduate	6.0
				>15 people	1.5	Postgraduate	0.7
Total	100	Total	100	Total	100	Total	100

18-30 Age group account for 23.3% of the respondents, 51-65 years formed 11.3% of the respondent whilst only 1.5% was aged above 65 years. Out of the 120 respondents, 78.2% were married, 12.8% single, 5.5% divorced and 3.5% widowed. The high number of respondents in a married relationship is due to the cultural reasons and the need for some form of security for the family in the event of economic or social calamity. A significant number of the respondents have family size between 5 and 7 people.

Farming activities of respondents: Besides cultivation of traditional crops, MFP farming is often considered as an additional farming activity. Respondents ranked farming activities according to their importance to them in two seasons of cultivation on is Rabi and other one is Kharif. About 61% indicated Rice & wheat as their major farming activity; 12.5% maize; 11.1% cassava; 10.3% tree farming and 5.5 oil palm productions.

MFP farming in the District: While cocoa and other farming activities are important in the study area,

farmers have a great variety of occupations and income earning strategies to supplement income from traditional farming activities. Farmers engage in the collection and production of MFPs such as honey production/beekeeping, grass-cutter rearing, mushrooms, snails, medicinal plants, Harra, Chirounji, Mahua and making utensils for household use and trading the goods to supplement their incomes. The field survey conducted on farmers of these products indicated that most of the respondents were active in collection of mahua followed by grass cutter, snail rearing, mushroom and medicinal plants, respectively, to supplement their incomes. The respondents choose to farm MFPs for various reasons. About 65.2% indicated they farm MFPs to supplement their income; 11.5% farm these products due to poor cocoa harvests, 9.7% do so due to lack of substitute economic activities; whilst 6.2% cited conservation of forest as the motivation for producing MFPs. Furthermore, 7.0% and 3.2% indicated that they, respectively, engage in the production of these products

to improve the food security of their families and for protection purposes. Finally, 1.4% of respondents also farm the MFPs due to the no availability or small size of farmlands. MFP related activities are important elements of livelihood strategies amongst farmers in the study

area. Among the 100 households sampled, 85% derive some income from the farming/gathering of MFPs to supplement their incomes. About 32 % have more than half of their total income on MFPs (Table 2).

Table 2. Annual income and share of MFP based income among respondents

Income Quintile of Respondents	%	Avg. Annual Income	MFP-based income as share of total income
1 "rich"	5.0	5,000-6,000	25%
2	41.0	3,000-4,900	28%
3	23.0	2,000-3,000	45%
4	16.0	1500-2,000	51%
5 "poor"	15.0	650-1,000	55%

Commercialization of MFPs in Madhya Pradesh:

Production of MFPs in Madhya Pradesh: The study revealed that Production of MFPs in Madhya Pradesh about 85% of the farmers/harvesters uses smokers, protective clothes. The production period of MFPs in Madhya Pradesh is done whole year for different products having different seasons? Actors in the MFPs value chain in Madhya Pradesh involve producers, processors, wholesalers, retailers and consumers. The value chain is not fully operational. Most of the MFPs is sold in raw form, with little or no processing and packaging. Ninety per cent (90%) of the respondents usually sell MFPs in weekly hat without labelling while about 10% sell with labelling. Some retailers and farmers do some form of packaging and labelling where the MFPs is put in bags with some labels and sold to the consumers. The quality of MFPs produced in Madhya Pradesh depends largely on the mode of harvests. A significant number of MFP collectors employ crude harvesting methods that involve the use of fire and smoke. Though, MFP production is currently sold at the local and national levels, great potentials exist for the development of a viable MFP export system in Madhya Pradesh and this plays an important role in make in India initiatives.

MFPs processing and packaging: Drying and baking are the two traditional methods used to process MFPs in Madhya Pradesh. Drying is a process where the MFPs are individually placed on open ground in front of house is called Angan for the removal of the fur while baking is a process in which the MFP is dipped into hot water of about 80-100°C. The study revealed that most farmers (67%) prefer the Drying method which they claimed it gives better goods of the MFP when the MFP is dried due to increased value of the MFPs.

Most farmers interviewed (75%) sell MFPs in its raw form to customers at either the farm gate or local market. However, in some cases, farmers process the MFPs before selling at the most popular spots on the highway. The price of processed MFPs is more than the unprocessed one. For instance, in Anuppur District it was realized on the average, the price of semi processed MFP like mahua costs Rs. 45.00, while the unprocessed one cost 30.00. It was also realized that farmers were aware of the potential international market for MFPs but

the problem is lack of processing and packaging skills and facilities.

Labelling and certification of MFP: While discussions on MFP certification have increased recently, the applicability and its impact as a tool to promote the development of MFP remains unclear. Certification is defined by the International Organization for Standardization (ISO, 1996) as a process by which written assurance is given that a product, process or service is in conformity with certain standards. While many definitions and types exist, the main types of certification schemes differentiate between first, second and third party certification as well as between system based and performance based certification. Standards for labelling and certification of MFP in Madhya Pradesh are not well developed. The compliance with quality criteria is one of the challenges in the marketing stage of MFP value chains in Madhya Pradesh. The quality aspects, particularly food products, are taken care by the Madhya Pradesh Standard Board and Food and Drugs Board. Unfortunately, most of the producers are unorganized, isolated and sell these products locally to individual customers without meeting the required international standards. Access to international market for MFP is also very minimal. Although the potential for international market for some products exists in Madhya Pradesh, farmers have very limited capacity in meeting international standards. Lack of standardization is a significant constraint of MFP commercialization in Madhya Pradesh markets. Also, quantities of products produced are insufficient and failed to meet international standards for export. Eighty-seven per cent (87%) of the respondents have no idea about packaging and labelling requirements of MFP. Trade in certified MFP is still marginal, compared to the trade of non-certified products. Major challenges of MFP labelling and certification in Madhya Pradesh include lack of market demand, high costs of certification system, insufficient product definition and classification system since many MFP are not included in international classification or standardization systems.

Marketing of MFPs in Madhya Pradesh: Falconer noted that there is a strong market for MFPs, especially in urban centres and there are no signs of any decline. Marketing of MFPs in Madhya Pradesh involves a great

number of people selling a vast array of products, including mushroom, snails, honey, leaves, medicinal plants, food wrapping leaves and chewing sticks, etc. The key players in MFPs market consist of various levels of local collectors, traders, hat traders and large traders in the districts. Most MFPs traders rely on district and urban markets while others by pass markets altogether and sell their products directly to local restaurants and customers in the district capitals. For the purposes of this paper local MFPs markets in Madhya Pradesh includes the instant village markets, markets within nearby villages and local towns, roadside, junction selling points and markets in the nearest large urban centres and cities. In most cases, prosperity of a market depends on good access and the closeness of passing traffic. Most MFPs traders besiege approaching vehicles at the checking points to sell their products.

Though MFPs trade is done in both local and urban markets, they have different characteristics. Also the real benefits of the trade at the local level are unknown. The study shows that MFPs marketing in the study area often occurs in a casual way, resulting in uncertainty about prices and yields. Marketing is basically done

individually; it is unorganized, dispersed and farmers lack the needed marketing skills and information required for the optimal performance. MFPs market in Madhya Pradesh is highly characterized by seasonality and differs in social structures (including gender influence). Gender plays a significant role in the marketing of MFPs in rural Madhya Pradesh. The MFPs trade is dominated by women. Local producers are in a stronger position to exchange with middlemen when they are operating as a group. Many of the farmers are often not aware of the prevailing market prices due to lack of market information. About 10% of the surveyed MFPs farmers are members of a farmers association. However, there is a strong need for market information, which is one of the major constraints of MFPs commercialization in tribal areas of Madhya Pradesh. Most MFPs are sold without any processing or value addition and the international marketing of MFPs has not developed. However, trade and usage of some MFPs have assumed a wider dimension with more medicinal products being traded in the local markets. Commonly exploited and traded MFPs in Madhya Pradesh are presented in Table 3.

Table 3. Commonly traded MFPs in Madhya Pradesh

Foods	Medicines	Household Goods
Fruits	Barks	Baskets
Honey	Leaves	Mats
Mushrooms	Fruits	Wooden trays
Snails	Animal products	Grinders
Spices	Prepared tonics	Mortars
Gums	Hides	Pestles
Essential oils	Seed	Spoons
	Roots	Dyes
	Essential oils	Chewing sticks

MFP commercialization in Tribal Areas of Madhya Pradesh, key challenges and strategies for making make in India success: A number of critical factors continue to constrain the ability of farmers to exploit the full potential of commercialization of MFPs in Madhya Pradesh. The critical factors that hinder the commercialization of MFPs in Madhya Pradesh are identified and analysed in Table 4. For MFPs to be pivotal to poverty reduction, sustainable forest

management and human development in Madhya Pradesh, a number of appropriate strategies are recommended. An effective application of these strategies by development policy makers and actors will significantly facilitate the development and promotion of MFPs farming, harvesting, processing and marketing to help poverty reduction, conservation of forest resources and sustainable development in Madhya Pradesh.

Table 4. Key challenges and strategies for MFPs commercialization in Madhya Pradesh

S.No	Key Challenges	Recommended Strategies
1	Lack of policy to guide the use, management and development of MFPs in Madhya Pradesh	Formulation of a Visible National MFPs Policy.
2	Over harvesting and Deforestation	Promotion of MFPs farming as potential to help halt depletion and improve the livelihoods.
3	Inadequate Finance for MFPs Farmers	Provision of financial and training support to MFPs Farmers.
4	Poor Harvesting and Processing Skills	Building the capacity of farmers and collectors in harvesting and processing of MFPs. Establishment of local food processing companies to process the MFPs.

5	Lack of Packaging and Labeling Requirements	Build the capacity of farmers in packaging and labeling.
6	Lack of Marketing information	Increasing access to market information to MFPs sellers can be achieved through information dissemination, empowerment of collectors and establishment of linkages between collectors and traders.
7	Lack of Inputs and Farm Construction Materials	New and more innovative and sustainable materials need to be developed for this purpose and provided to the farmers in subsidy.
8	Inadequate of Awareness Creation of the nutritional and Health values of MFPs	Awareness creation of the nutritional, medicinal and environmental benefits of MFPs by the Ministries of Agriculture, Health and Environment will significantly help to promote the farming of MFPs in Madhya Pradesh.

IV. CONCLUSIONS

MFPs farming activities provide an important opportunity for food security and poverty reduction, particularly for the economically marginalized and forest dependent communities in many developing countries. Their production, processing and marketing are very critical elements of poverty reduction and livelihood improvement strategies in rural areas in Madhya Pradesh and it plays an important role in make in India initiatives. This paper has revealed that a significant number of farmers and their households in Anuppur District in the Madhya Pradesh continue to supplement their income from MFPs farming and marketing activities. Promoting the development and commercialization of these products on a permanent basis will enormously help to create more sustainable employment and income generation opportunities, enhance food security and improve the livelihoods of farmers, their families, and communities and also strengthen the country's economy through make in India programme run by the Govt. The results of the study indicate that the marketing of MFPs in Madhya Pradesh faces a number of critical processing, labelling, and marketing challenges. Strategies for promoting the production, harvesting, processing and marketing MFPs will significantly help to improve food security, poverty reduction, and livelihood improvement in the tribal areas of Madhya Pradesh and also indicates how the commercialization of MFPs is essential in supporting and success of Make in India.

REFERENCES

[1] Arnold, J. E. M. and Ruiz Pérez, M. 2001. Can non-timber forest products match tropical forest conservation and development objectives? *Ecological Economics* (3):437-447.
 [2] Belcher, B. and Schreckenberg, K. 2007. Commercialization of non-timber forest products: A reality check. *Development Policy Review* (3):355-377.

[3] Belcher, B., Ruiz Pérez, M. and Achdiawan, R. 2005. Global patterns and trends in the use and management of commercial NTFPs: Implications for livelihoods and conservation. *World Development* (9):1435-1452.
 [4] Chandrasekharan, C. 1995. Definitions, terminologies and categorizations of forest products other than timber. Paper for the International Expert Consultation on Non-Wood Forest Products, 17-27 January, Yogyakarta, Indonesia, pp. 1-23.
 [5] Clendon, K. 2001. The Role of Forest Food Resources in Village Livelihood Systems: A Study of Three Villages in Salavan Province. Lao PDR, IUCN, Vientiane.
 [6] Falconer, J. 1994. Non-Timber Forest Products in Southern Ghana: A Summary Report. ODA Forestry Series No. 2. Natural Resources Institute, Chatham, pp. 1-235.
 [7] FAO 2008. An Information Bulletin on Non-Wood Forest Products. *Non-Wood News*, FAO, Rome, :12-21
 [8] Food and Agriculture Organization 2006. Can Non-Wood Forest Products Help Contribute to Achieving The Millennium Development Goals? FAO, Rome, Italy, pp. 2-14.
 [9] Greene, S. M., Hammett, A. L. and Kant, S. 2000. Non-timber forest products marketing systems and market players in Southwest Virginia: Crafts, medicinal, herbal and specialty wood products. *Journal of Sustainable Forestry* (3):20-37.
 [10] Kotler, P. and Keller, K. L. 2007. A Framework for Marketing Management. Pearson Prentice Hall, Upper Sadle River, pp. 4-10.
 [11] Marshall, E., Newton, A. C. and Schreckenberg, K. 2005. Commercialization of non-timber forest products: First steps in analysing the factors influencing success. *International Forestry Review* (2):128-135.
 [12] M buvi, D. and Boon, E. 2009. The livelihood potential of non-wood forest products: The case of M booni Division in Makueni District, Kenya. *Environ. Dev. Sustain.* :989-1004.
 [13] Neumann, R. P. and Hirsch, E. 2000. Commercialization of Non Timber Forest Products: Review and Analysis of Research. International Centre

or Forestry Research (CIFOR), Bogor, Indonesia, pp. 1-147.

[14] Shackleton, C. M. and Shackleton, S. E. 2004. The significance of minor forest products in rural livelihood security and as safety nets: A review of evidence from South Africa. *South African Journal of Science* (11 & 12):658-664.