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Mahua Trading Scenario: Challenges and Chances

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Forest resources are considered to be a path for sustaining rural livelihoods, reducing rural poverty, biodiversity conservation and facilitating rural economic growth of the country (Maske et al. 2011). Non-Timber Forest Products (NTFPs) are the backbone to the Indian forest economy that contributes over 50 per cent of the total forest revenues. Around 5.5 crore tribals are dependent for survival on earnings from forest produce gathering (ToI). According to a report, the export earnings from NTFPs are recorded to be about US \$ 1,331 million (Patel and Naik, 2010). Recent reports of the planning commission had noted that NTFPs contributes to 20 to 40 per cent of the income of forest-dependent communities, especially the landless with a dominant population of tribals and provides critical subsistence during lean seasons (www.downtoearth.org.in). Some of the major edible NTFPs of India are sal seeds, mahua flowers and fruits, myrobalans, bamboo shoots, mushroom and others. Among these, mahua (*Madhuca longifolia* var. *latifolia*) is one of the most important NTFPs, which playing a major role in the tribal economy. Large numbers of mahua resources are found in the states of Uttar Pradesh, Madhya Pradesh, Orissa, Jharkhand, Chhattisgarh, Gujarat, Andhra Pradesh, Maharashtra, Bihar, West Bengal and Karnataka (Patel and Naik, 2010). Mahua is considered as an economically important non timber resources for poor families in the state of Gujarat and greatly valued for its flowers and seeds. The species is well distributed in south, middle and north Gujarat, which are found in forests, revenue, and private lands (Hegde, 2018). Mahua products play an important role in livelihood of tribal belt in the state. The tree has religious and aesthetic value in the tribal culture (Hegde et al., 2019). The trees with best girth in the forests are represented by mahua trees, since trees are protected and cared by forest dwellers. It is a very versatile tree and most of its parts are used in one or the other ways. Among them, the flowers and seed oil

are very important products obtained and widely used by the local dwellers. This species is also valued by the food, cosmetics, pharmaceutical and soap industries.

In a state like Gujarat, collection of mahua products is important livelihood activity for the local communities in most of the forest fringe villages especially those situated in tribal belt. In spite of efforts made by Government to establish stable markets, still majority of the mahua products are sold in traditional way through middle man or local small traders. Considerable quantity of flowers are either exchanged or traded among the tribes which will not come to the market system. Further, mahua products move out of rural system without any processing, so primary collectors are mostly deprived from the creamy benefits. Keeping the forest produce gatherers as the focus, State and Central Governments are making lot of efforts for ensuring fair and remunerative prices to the primary collectors. Many schemes were launched in the interest of gatherers to bring about the change that is needed to propel the forest based financial system on the high path of growth and development. In 2013-14, the government had for the first time declared Minimum Support Price (MSP) for NTFPs, after years of demands by forest dwelling communities. At the end of the year 2018, Central Government has declared inclusion of 17 new minor forest produce (MFP)/ NTFPs under the government's minimum support price scheme including dry mahua flowers (www.downtoearth.org.in). The MSP for mahua flowers was fixed at rupees 17 per kg (stable for two years) and for seeds at rupees 25 per kg (25 % increase compared to 2017). Recently, Covid-19 pandemic has impacted the livelihood and economy of indigenous people living in and around the forests of India. The collection and sale of hundreds of minor forest products (MFPs), which form the backbone of forest dwellers' economy was badly affected. In the backdrop of the livelihood challenges arising out of Covid-19 pandemic, the Central Government stepped up support for crores of tribals by increasing the MSP of the NTFPs for 46 items in the price range of 6.1% to 90.5% per kg. There has been an increase of 76.5% (Rs 17 to Rs 30 per kg) in case of dried mahua flowers and additional hike of 15% -16% in case of mahua seeds i.e. increases from rupees 25- 29 per kg (Pandit, 2020). If states create systematic procurement system, these supportive measures will be helpful to the forest dependent communities including the primary collectors of mahua.

CHALLENGES IN MAHUA TRADING

In many states, government organizations like Tribal Development Co-operative Corporations (TDCC) purchase the flowers at a minimum support price to set aside the collectors from the exploitations of the middle man. However, due to lack of suitable post-harvest processing technologies, most of the flowers are damaged during the various stages of supply chain. At present, the only industrial utilization of these flowers is in production of liquor, which is illegal in most of the states. Sometimes the prices fixed by the government for mahua products under the provisions of the Act are lower than the prevailing market prices. This goes against the spirit of the Act and possibly also leads to malpractice. Local collectors are mainly facing the problem of low and fluctuating market prices of NTFPs in general and mahua resources in particular, which

is followed by lack of developed market infrastructure. From time to time, existence of bad weather may cause the problem in collection. During our field visits, it was often heard that, extreme variation in summer temperature and delayed monsoon often affect the quantity as well as quality of flowers & seeds (Hegde, 2018). As mahua is entirely a wild collection, so collection challenges and related problems are also have an impact on marketing and trade of these resources. Unchecked collection of mahua resources like flower and seeds may result in disturbances of its natural populations. In contrast to this, few mahua populations (group of trees) in Gujarat are being protected by families/communities in such a way that, it has got the status of protection as similar as sacred groves (Hedge et al., 2018). The collection of mahua flower takes place during March to April whereas the collection of seed carried out in May-June. Collection of flowers is usually carried out in the early morning hours, from 4-10 am as flower fall generally occurs in early morning hours. This could be an odd time for collection and sometime people may not be able to collect it freshly. Due to this, fallen flowers may get damaged and may not be suitable even for long term storage. There are no storage and value addition practices available for this species at local (village) level.

Collectors generally hold mahua flowers for 5-7 days (approximately 1-2 days for drying). Storage for longer periods leads to oozing of sap, fungus attacks and bitter taste. On other hand, there is a little awareness about the market price of mahua among collectors. Big traders usually dry the mahua flowers to ensure minimum wastage due to rotting during storage and about 4-6 per cent loss has been suggested in terms of weight in the process of drying (Anon, 2013). In most of the cases, immediate sale of mahua is being practiced among tribal people for instant cash requirements during the low activity months. Most of the people are of the opinion that, market rate for mahua flowers always declines during the peak flowering season, which discourages the local collectors. Most of them sell it in weekly local markets rather than giving it to authorized traders or corporation. Interestingly, some people sell stored mahua flowers during odd season *i.e.*, winter month to obtain higher income.

GOVERNMENT INTERVENTIONS

In Gujarat, there are around 1.73 lakh villages located in and around the forests. Almost 40 to 60 per cent of their total income is derived from sale of forest products (MoEF, 2015). Prior to Gujarat State Forest Development Corporation (GSFDC), existence of NWFPs trade was with private hands. They were unconcerned about the plight of MFP collectors in their pursuit for more profits. The GSFDC took up trade of NWFP (collection/procurement and marketing) as its main objective. This had substantial bearing on tribal economy. The state provided due legitimacy and support to it by promulgating the Gujarat NWFPs Trade Nationalization Act, 1979. The Article 19 (6) (II), Fundamental Rights and Article 46 Directive Principles of State Policy, Constitution of India provide for this. Through this Act, the trade of four NWFPs *viz.*, Timru leaf, Mahua flower and fruit, Gums was nationalized in Gujarat. Under this Act, Gujarat State Forest Development Corporation Ltd (www.gsfcdcltd.co.in) has been appointed as the sole agent of Government to purchase, sell and transport these NWFPs in the State. Further, the

Hon'ble High Court of Gujarat has in its recent verdict upheld the monopolistic position of Corporation for the benefits of tribal people. Collection rates have ~~been~~ increased progressively by taking into consideration prevailing market rates. In the wake of 73rd constitutional amendment and the amendment to the Gujarat Panchayats Act in 1998, corporation now trades in NWFPs from Scheduled areas on behalf of Gram Panchayats/Sabhas on a no-profit no-loss principle. Transit permits are necessary for trade of various NWFPs in Gujarat. In case of nationalized NWFPs, including mahua, the permits are issued by the Gujarat State Forest Development Corporation (GSFDC) to purchasers to transport their goods from one place to another within the framework of the rules and regulations of the Gujarat State Minor Forest Produce Trade Nationalization Act, 1979 (Shiva, 1995). In this way, NWFP trade is checked and regularized by GSFDC to control illicit activities.

NWFPs collection is done through Corporation's agents who are appointed by the Corporation. Tribal's Co-operative Societies, Joint Forest Management (JFM) committees, NGOs and other individual agents are appointed as agents by GSFDC Ltd. Individual agents are paid 10 per cent commission in addition to the transportation charges from the collection centre to the godown. One per cent extra (*i.e.* 11%) amount is being paid to Tribal's Co-operative Societies, JFM, VanMandali. NWFPs are also collected through Direct Purchase Centres (DPCs) at GSFDC Ltd. godowns and weekly local Bazars (local markets) through Corporation's staff by paying collection rates and commission charges to the primary collectors. After collection, NWFPs are stored in Corporation's godowns and sold through traders and if necessary by open auction and negotiations. After two to three attempts of Tender's Sale, NWFPs are sold by taking offers from the traders/merchants (www.gsfcdcltd.co.in).

FUTURE PROSPECTS

Establishing financially healthy enterprises in the forestry sector, with very limited resource support which are based on ecological sustainability, community empowerment, is a daunting task. Over the years, most of the original collectors/harvesters of non-wood forest resources including mahua are just getting additional benefits; however, they do not see it as a main source of livelihood. With declining natural resources, traditional knowledge and forest related skills; it would be a challenging task to transform this whole process into an attractive source of livelihood. On the other hand, growing demand for natural products still keeps the hope to develop this whole process into a striking entrepreneurship opportunity for the forest dwellers at both individual and community level.

Scientific ways of handling and sustainable management of mahua resources are very crucial for better livelihood option among the local communities. Already capacity building works are going on at different stages to upgrade their existing knowledge and skill to further stage. However, more intensive trainings need to be carried out at grass root level in order to give attentiveness about systematic collection, grading, primary processing and marketing of mahua products. Central government supported schemes like Van Dhan Vikas Karyakram are supportive in additional income generation through

training among tribals on the aspects of value addition to important NWFPs including mahua. Revamping of the training delivery component with a focus on promotion of tribal entrepreneurship by harnessing their collective strength, a pilot project on establishment of Van Dhan Vikas Kendras has been established. Value added mahua products like, sweet dishes, syrup, jams, etc. may help the communities to earn more and better income than what they are getting at present. Mahua nutrabeverage can also be another entrepreneurial option for the rural youths. The Tribal Cooperative Marketing Development Federation of India (TRIFED) has already developed a mahua flower based nutrabeverage blended with other conventional fruits having higher nutritional value (Anon, 2019).

Only value addition may not be sufficient to enhance the livelihood of these forest dependent communities, in fact creation of strong market linkage process and marketing support is equally helpful in improving their economic conditions. National Agriculture Market (eNAM) is a pan-India electronic trading platform which can be utilized for the marketing purpose. One can create the own website and start online marketing to get direct benefits by reaching the end users.

POTENTIAL MOTION FOR GUJARAT

GSFDCL Ltd. is already providing online shopping facility for its ayurvedic products under the brand Dhanvantari which is a classical example. Tribal Co-operative Societies and other local organizations can be linked with industries to make the mahua trading more profitable for both buyers and sellers. Mahua Consortium can be created by involving the stakeholders like collector's group/society (Tribal Co-operative Societies/SHGs/JFMC/BMC), Gujarat Forest Department, Gujarat State Forest Development Corporation, College of Forestry of Navsari Agricultural University, Gujarat State Biodiversity Board, reputed NGOs working on mahua, industries using mahua resources, oil mills and any other relevant firms/agencies of the state or country. As a vital common property resource (CPR) mahua provides an excellent opportunity for the successful access and benefit sharing (ABS) mechanism. ABS is helpful for ensuring the sustainable management of mahua resource and responsible utilization of the rich traditional knowledge of the indigenous communities. There are many such success stories about ABS in our country where National Biodiversity Authority, State Biodiversity Boards and Biological Management Committees (managed by local communities) utilize the Access and Benefit-sharing of the biological resources (www.nlsabs.com). The older and classical example is Tropical Botanical Garden and Research Institute (TBGRI) and a pharmaceutical company called Arya Vaidya Pharmacy on one side and the Kani tribes, (Kani is a tribal community inhabiting the Agastyamalai forest of Kerala) on the other side for the development of a drug called 'Jeevani' based on the traditional knowledge of the Kani tribe. Other success stories in our country are namely, Red Sanders case & Bio India Biological-Neem in Andhra Pradesh, Habib Cosmetics Private Limited in Uttarakhand, PepsiCo-seaweed case of Tamil Nadu, The Gram Mooligai Company Limited (operating in many southern and central India with community of medicinal plant gatherers), Dabur India Pvt. Ltd. in Himachal Pradesh

(www.nlsabs.com). In state like Gujarat, ABS related to mahua resources have lot of prospect if institutional mechanism applied properly.

In a revolutionary step, to protect the tribes from distress sale of their produces, Ministry of Tribal Affairs, Government of India, launched a scheme called “Mechanism for Marketing of Minor Forest Produces (MFP) through Minimum Support Price (MSP) and Development of Value Chain for MFP”. These institutional approaches by societal inducement mode will ensure and strengthen the ongoing efforts of Government in progress of rural prosperity in the state.

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