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Role of non-timber forest products in the livelihood of tribal community of Jhabua district (M.P.)

Vijay V. Wagh*, Ashok K. Jain* and Chitralekha Kadel**

**School of Studies in Botany, Jiwaji University, Gwalior, (MP) INDIA*
***School of Studies in Botany, Vikram University, Ujjain, (MP) INDIA*

ABSTRACT : Jhabua is a predominantly tribal district; living close to forest tribals of this district are totally dependent on the forest for their daily needs. The role of NTFPs becomes more significant for less agriculture dependent communities with small land holders residing in remote forests. Collecting and selling of NTFPs is considered as an important way of using vegetation in sustainable manner. Edible and medicinal plants are principle NTFPs. Types, species and amount of NTFPs are different in different seasons and also influenced by the location. Thirty nine (39) economically important species utilized by the local people have been recorded from the Jhabua district. The importance of NTFPs collection and trading in local communities has shown decreasing trend due to the exotic culture invading in the study region.

Keywords : Non-timber forest products, livelihood, tribal communities, Jhabua district

INTRODUCTION

Non-timber forest products (NTFPs) refer to medicinal plants, food, resin, fiber and others kinds of non timber products collected from the forest (Peters *et. al.*, 1989, Chamberlein *et. al.*, 1998). Gathering NTFPs from local forest for getting cash income or used by indigenous people themselves can be traced thousands of year ago (Ticktin 2004, Freed 2001). To collect and use NTFPs is a key issue related not only to living standards improvement and traditional culture of indigenous people but also conservation of biodiversity and sustainable development of concerned regions (Kareiva 1994, Gould *et. al.*, 1998, Baird and Dearden 2003). Traditional market not only provides a major venue to indigenous people for getting cash income from their produce but also are important sites for spreading traditional knowledge on plant use and conservation (Williams *et. al.*, 2000, Mertz *et. al.*, 2001).

Madhya Pradesh holds highest rank in tribal population of India. According to 1991 census, the tribal population of the state is about 153, 99,034 which accounts 23.27% of the state's total population. There are 46 tribal communities in the state divided into more than 100 ethnic groups. The state is very rich in biodiversity and ethno-diversity of the country. Forests are inseparable part of the tribals. They are almost wholly dependent on forests for food, shelter, medicine and clothing. They collect Non Timber Forest Products (NTFP's) like roots, tubers, flowers, fruits, fibers, gum, resin, dye, tannins, honey and wax etc. to fulfill their day to day requirements. Very little work has been carried out on socio-economic aspects of tribal's for upliftment of their economic status through locally available raw materials or plant produces through selling of NTFP's. Some important studies from ethnobotanical point of view have been made at certain places (Bhalla *et. al.*, 1986, Jain 1988, Maheshwari 1990, Maheshwari and Painuli 1990, Sikarwar 1997, 1998, Singh 1993, Jain 2000, Jain and Patole 2001 and Jain and Vairale 2007).

Jhabua district is situated in the western most part of Madhya-Pradesh. Most of the village inhabitants of Jhabua district belong to tribal communities. Major part of the district is covered by dense forest area in which various tribes like *Bheel, Bhilala* and *Pataya* are living in majority. The local tribal people are totally dependent on the forest products for their existence. Some sporadic work on floristic and ethnobotany has been done on Jhabua district by (Samvatsar and Diwanji 1992, 2004 and Kadel and Jain 2006). Till date no much work has been done on the economic aspects of NTFPs in the livelihood of tribal community of Jhabua district.

MATERIAL AND METHODS

Thorough survey was conducted in different weekly markets of Jhabua district between May 2007 to April 2009. The method adopted for collection of information was the interview with tribal people and local traders. During the survey background information of the NTFPs peddlers and consumers was also gathered. Voucher specimens were also collected, identified from published literature and deposited in the herbarium of School of Studies in Botany, Jiwaji University, Gwalior. Information as vernacular names, parts used and market price of the NTFPs was also recorded. The main periodic markets in study region were Jhabua, Ranapur, Alirajpur, Kathhiwada, Bhabhra, Meghnagar, Petlawad, Thandala and Jobat. All the markets are held once in a week with a fixed rotation in the same locality.

RESULT AND DISCUSSION

The present study reveals that a good number of villagers have knowledge of exploring NTFPs as about 25% of their income is generated from the collection of NTFPs while 50% from agriculture and remaining 25% from other sources. The people in majority prefer to collect the NTFPs having high prices. They obtain tentative prices of the NTFPs and their market demand from the traders and local

shopkeepers. It was also observed that mostly poor and unemployed people collect and sell NTFPs in large quantities. They retain large part of the produce for their own use and sell remaining part in the market. The income generated by the sale of NTFPs is utilized for buying clothes, salts and other necessary items. The collectors mostly recognize NTFPs by leaves, flowers or by smelling. According to them, now a days, the NTFPs are not easily available in the forests. The collectable quantity of NTFPs is decreasing day by day as compared to past years.

Thirty nine (39) medicinally and otherwise important species utilized by the local people have been recorded from the Jhabua district. Out of theses plant species tree forms are found to be dominant with (18) eighteen species, followed by herbs, shrubs, and climbers with (7) seven species each. Medicinal plants like *Asparagus racemosus, Celastrus paniculatus, Chlorophytum borivilianum, Costus speciosus, Helectres isora, Ocimum canum, Schelcheria oleosa, Vernonia anthelmia, Abrus precatorius, Mucuna pruriens, Phyllanthus emblica* and *Wrightia tinctoria* are very well known for their medicinal value.

In the study region the trading process is still keeping a traditional style. There are a limited number of species collectors and sellers usually do not bother about accurate quantification of their NTFPs. Their aim is only to get expected returns, so the sellers can finish the trading process easily without any tool such as weights and balances.

Different kinds of NTFPs are available seasonally Table 1. The stalls or temporary shops selling NTFPs happen to be more in Alirajpur followed by Jhabua, Katthiwada, Ranapur, Bhabhra and Jobat.

Table 1 : List of plant species sell in market with its price.

Sr. No.	Botanical name and collection No.	Family	Habit	Local name	Parts traded/used	Market price in Rs/-
1.	*Abrus precatorius* L.(JBA-44)	Fabaceae	Climber	Lal Ratti	Seed is used as abortifacient.	70/Kg
2.	*Abrus pulchellus* Wallich ex Thwaites(JBA-589)	Fabaceae	Climber	Kali Ratti	Seed is used as abortifacient.	120/Kg
3.	*Acacia nilotica* sub sp.*indica* (Benth.) (JBA-132)	Mimosaceae	Tree	Babul	Gum is used in weakness.	200/Kg
4.	*Aegle marmelos* (L.) Correa(JBA-252)	Rutaceae	Tree	Bel	Dried pulp used in soothing effect.	50/Kg
5.	*Amorphophallus paeniifolius* (Dennst.) Nicolson(JBA-131)	Araceae	Herb	Jangali Suran	Corm used in intestinal disorder.	35/-Kg
6.	*Annona squamosa* L.(JBA-134)	Annonaceae	Shrub	Sheetaphal	Dried fruit powder is given in Diarrhoea.	100/-Kg
7.	*Anogeissus latifolia* (Roxb.ex DC.) Wall. ex Bedd.(JBA-292)	Combretaceae the strength.	Tree	Dhawada	Gum is used to increase	350/Kg
8.	*Asparagus racemosus* Willd.(JBA-391)	Liliaceae	Climber	Sesliya ghas	Tuberous root is used for lactation.	200/- Kg
9.	*Azadirachata indica* A. Juss.(JBA-72)	Meliaceae	Tree	Neem	Fruit is used for sterility in men.	20/-Kg
10.	*Bambusa arundiniaceae* (Retz.) Willd.(JBA-590)	Poaceae	Shrub	Bans	Seed is used for curing Kidney stone.	25/-Kg
11.	*Buchanania lanzan* Spreng.(JBA-327)	Anacardiaceae	Tree	Chironji	Seed is used for urinary disorder	200/-Kg
12.	*Butea monosperma* (Lam.) Taub.(JBA-589)	Fabaceae	Tree	Dhak	Gum is used for backache.	150/Kg
13.	*Caesalpinia bonduc* (L.) Roxb.(JBA-591)	Caesalpiniaceae	Shrub	Ghatar	Seed is used against scorpion sting.	75/Kg
14.	*Cassia fistula* L.(JBA-50)	Caesalpiniaceae	Tree	Garmala	Seed powder is used in diarrhoea.	80/-Kg
15.	*Cassia tora* L.(JBA-129)	Caesalpiniaceae	Herb	Puadiya	Seed is used against snakebite.	50/-Kg

(Contd...)

Sr. No.	Botanical Name and Collection No.	Family	Habit	Local name	Parts traded/used	Market price in Rs/-
16.	*Celastrus paniculatus* Willd.(JBA-412)	Celastraceae	Climber	Kangan	Seed oil is used in arthritis	150/-Kg
17.	*Chlorophytum borivilianum* Santapau and Fernands (JBA-99)	Liliaceae	Herb	Dhawali musli	Tuberous root is used to increase the strength.	300/-Kg
18.	*Costus speciosus* (J.Koeing) Sm.(JBA-189)	Costaceae	Herb	Jangali Aadu	Rhizome is used in cold and cough.	80/-Kg
19.	*Diospyros melanoxylom* Roxb.(JBA-255)	Ebenaceae	Tree	Tendu	Unripe fruit is used in dysentery.	50/-Kg
20.	*Gloriosa superba* L.(JBA-176)	Liliaceae	Climber	Ranchendi	Tuberous root is used as abortifacient and arrow poisoning.	90/-Kg
21.	*Helicteres isora* L.(JBA-138)	Sterculiaceae	Shrub	Atodi	Pod is used in stomach disorders.	150/-Kg
22.	*Hibiscus vitifolius* L.(JBA-253)	Malvaceae	Herb	Jangali Kapas	Stem fibre is used for making rope.	20/-Kg
23.	*Jatropha curcas* L.(JBA-33)	Euphorbiaceae	Shrub	Ratanjyot	Seed oil is used in Joint pain.	40/Kg
24.	*Lagenaria siceraria* (Molina) Standl.(JBA-192)	Cucurbitaceae	Climber	Kaddu	Seed decoction is given in menstrual disorder.	90/Kg
25.	*Madhuca longifolia var. latifolia* (Roxb.) Chevalier (JBA-6)	Sapotaceae	Tree	Mahua	Seed oil is used against skin diseases.	50/-Kg
26.	*Moringa oleifera* Lamk.(JBA-464)	Moringaceae	Tree	Sehajana	Pod is used as appetizer.	30/Kg
27.	*Mucuna pruriens* (L.) DC.(JBA-31)	Fabaceae	Climber	Kewanch	Seed is used against muscular weakness.	125/Kg
28.	*Ocimum canum* Sims.(JBA-152)	Lamiaceae	Herb	Karahi	Pounded seed decoction given in fever.	125/- Kg
29.	*Phyllanthus emblica* L.(JBA-29)	Euphorbiaceae	Tree	Aonla	Dry fruit powder is used in stomach disorders.	25/Kg
30.	*Pongamia pinnata* (L.) Pierre(JBA-480)	Fabaceae	Tree	Kanji	Seed oil is used in Arthritis.	40/-Kg
31.	*Ricinus communis* L.(JBA-57)	Euphorbiaceae	Shrub	Arandi	Seed oil is used in joint pain.	35/Kg
32.	*Sapindus emarginatus* Vahl(JBA-549)	Sapindaceae	Tree	Reetha	Fruit is used for washing clothes and hair.	40/-Kg
33.	*Schleichera oleosa* (Lour.) Oken.(JBA-481)	Sapindaceae	Tree	Kusumda	Seed oil is used in Arthritis.	65/-Kg
34.	*Syzygium cumini* (L.) Skeels(JBA-390)	Myrtaceae	Tree	Jamun	Fruit is used to cure diabetes	40/-Kg
35.	*Terminalia arjuna* (Roxb. Ex DC.) Wight and Arn.(JBA-158)	Combretaceae	Tree	Arjun	Bark is used against cardiac disorder.	80/-Kg
36.	*Terminalia bellirica* (Gaertn.) Roxb. (JBA-191)	Combretaceae	Tree	Bahera	Fruit is used against stomach disorders.	30/-Kg
37.	*Vernonia anthelmintica* (L.) Willd.(JBA-)	Asteraceae	Herb	Ghoda jira	Pounded seed decoction is given in fever.	100/-Kg
38.	*Withania somnifera* (L.) Dunal(JBA-86)	Solanaceae	Shrub	Asgandh	Root powder is used in weakness.	65/-Kg
39.	*Wrightia tinctoria* R.Br.(JBA-82)	Apocynaceae	Tree	Indrajau	Seed decoction is given in malarial fever.	80/Kg

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