

## **ETHNOMEDICINAL PLANTS AND PLANT PARTS SOLD IN THE LOCAL MARKET BY HERBAL HEALERS IN ALIRAJPUR DISTRICT, MADHYA PRADESH**

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### **ABSTRACT**

Alirajpur district is situated in the extreme western corner of Madhya Pradesh. Ethnobotanical surveys were made in 24 villages during 2010 to 2015. Present study records 30 ethnomedicinal plants which are prescribed by local herbal healers and available in the local market. These plants are distributed in 28 genera and 17 families.

**Keywords:** Alirajpur, Bhabra, Bhil, Ethnomedicinal, Market Survey

### **INTRODUCTION**

Alirajpur is one of the tribal district of Madhya Pradesh and lies between 73°-30' to 75°-01E, longitude and 21°-30' to 23°-55' North latitude. It is bordered by Barwani district on the east Maharashtra on the south west and Gujarat state on the North West. Administratively the district is divided into 3 sub division namely Alirajpur, Jobat and Bhabhra tehsil. Forest area is confined to Bhabhra and Alirajpur tehsil. Most dense forests are occupied in Kattiwada region. Alirajpur district has rich population of tribals which accounts 87% of total population. The area is dominated by Bhils and their sub tribes.

Bhils are indigenous non Aryan tribal group and origin of these people is Proto Austroid. Bhil constitutes 25 percent, Bhilala constitutes 40 percent, Pateliyas 10 percent and Barela 12 percent respectively. They follow primitive customs, occupations and have a rich indigenous culture. Tribal does not believe in modern medicines and used to treat diseases traditional system of medicine. Even today, tribal and certain local communities in most of the countries are still collecting and preserving locally available, wild and cultivated plant species and practice herbal medicine to cure a variety of diseases and disorder (Ignacimuthu *et al.*, 2006). Tribal people treat their diseases from local traditional healers and rarely go outside for their health care. These medicine men are locally called Badwa or Bhupa. Traders used to come in the local market and purchases medicinal plants and plant parts a very low price. Demand of ethnomedicinal plants are increasing day by day and some plants become overexploited from forests due to trading and harvesting. Tribals are also dependent on forests for non timber forests products (NTFPS) like root, flowers, fruits, fibres, gums, resin, dye, tannins, and honey to fulfil their daily needs. Literature survey shows that few publications are available in relation to market survey of ethno medicinal plants. (Sinha and Nathawat, 1989; Sinha, 1991; Sinha and Dixit, 2003; Wagh *et al.*, 2010; Kadel *et al.*, 2011; Patil and Patil, 2011; Sikarwar *et al.*, 2012; Bharti and Kumar, 2014). In view of this, present study has been conducted to document the herbal drugs sold in the local market which requires special conservation measures.

### **MATERIALS AND METHODS**

Extensive field survey was carried out during 2010-2015 and 24 villages densely populated tribal villages were surveyed. These sites are Sorwa, Sondwa, Walpur, Bhakhagard, Aamkhut, Kathiwada, Bhabra, Kadwal, Jobat, Kanwada, Mandar, Chandpur, Umralli, Khattali, Udyagar, Aambua, Bori, Borzad, Nanpur, Chhaktala, Chatlyapani, Wan, Laxmani, Ratanmal.

Interview was conducted and information were gathered from the traditional medicimen, experienced and knowledgeable persons and local traders. Ethnobotanical market survey was conducted by method given by Martin (2008). Collected plant specimens were preserved following standard method (Jain & Rao,

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1977). Plants were identified with the help of flora (Jain, 1991; Verma *et al.*, 1993; Samvatsar, 1995; Mudgal, 1997; Singh and Karthikeyan, 2000; Singh *et al.*, 2001; Yadav and Sardesai, 2002) and available taxonomic literature. Plant specimens were deposited in the herbarium of PMB Gujarati science college, Indore.

### RESULTS AND DISCUSSION

Present study records 30 plants which are distributed in 28 genera and 17 families (Table 1). Most of the plants are sold in the local market.

Traders purchase these plants and plant parts from local source at very low price and sold in the market in high price.

Highest market price has been observed in case of *Anogeissus latifolia* and gum of this plant is sold in the local market (Hut bazaar) at the rate of Rs 400/kg. Tribal used to gather these plants resources from forests as per the traders requirement.

These plants become over exploited due to their high demand. Mentioning few of these are *Anogeissus latifolia*, *Asparagus racemosus*, *Acacia catechu*, *Baliospermus montanum*, *Buchanania cochinchinensis*, *Gymnema sylvestre*, *Phyllanthus amarus*.

Cultivation of these plants in their natural habitat is urgently required. As trading of these plants are directly involved with the economy of tribal so sustainable uses of these plants have been suggested.

**Table 1: Ethnomedicinal Plants and Plant Parts Sold by Herbal Healers in Alirajpur District, M. P.**

S. No.	Botanical Name and Family	Habit	Local Name	Uses	Rate of Plant Parts in Rs/kg
1	<i>Senna tora</i> (L) Roxb. Leguminosae	Herb	Puadiya	Seeds are used against insect bite. Leaf paste is applied in skin disease.	Leaves: 50/Kg Seed: 65/ kg
2	<i>Moringa oleifera</i> Lam. Moringaceae	Tree	Sehajana	Pods are eaten to relieve rheumatic.	Pod : 30/Kg
3	<i>Butea monosperma</i> (Lam.) Taub Leguminosae	Tree	Palas, dhak Khakhra	Laddoos are prepared from gum and eaten by ladies to increase strength.	Gum:150/Kg
4	<i>Ricinus communis</i> L. Euphorbiaceae	Shrub	Arandi/Vendi	Seed oil is used to relieve pain.	Seed oil: 40/Kg
5	<i>Syzygium cumini</i> (L.) skeels Myrtaceae	Tree	Jamun	Fruits are used to cure diabetes	Fruit: 60/Kg
6	<i>Terminalia arjuna</i> (Roxb.) wight And Arn. Combretaceae	Tree	Arjun	Decoction of bark is used against fever.	Bark : 90/Kg
7	<i>Terminalia bellirica</i> (Gaertn.) Roxb. Combretaceae	Tree	Bahera	Seeds are prescribed to increase strength.	Seed: 100/Kg

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8	<i>Azadirachata indica</i> A.Juss Meliaceae	Tree	Neem Neemboli	Bark is used to treat leucorrhoea. Soap and wine are prepared from fruit.	Fruit:30/Kg
9	<i>Drimia indica</i> (Roxb.)Jessop Asparagaceae	Herb	Jangali piyaj	Leaves are used to cure skin diseases.	Leaf: 20/Kg
10	<i>Cymbopogon citratus</i> (DC.)Stapf Poaceae	Herb	Rusa ghas	Oil is extracted from leaf and is massaged to relieve pain.	Leaf: 70/Kg
11	<i>Vernonia anthelmintica</i> (L.) Willd. Asteraceae	Herb	Kali jiri	Seed decoction is administered in fever.	Seed: 110/Kg
12	<i>Pongamia pinnata</i> (L.) Panigrahi Leguminosae	Tree	Kanji	Seeds Oil is used in arthritis.	Seed: 45/Kg
13	<i>Abrus precatorius</i> L. Leguminosae	Climber	Lalratti Jurum	Seeds are used as abortifacient.	Seed: 80/Kg
14	<i>Abrus Pulchellus</i> Thwaites Leguminosae	Climber	kali jurum	Seeds are used as abortifacient.	Seed: 130/Kg
15	<i>Acacia nilotica</i> (L.) P.J.H.Hurter&Mbb. Leguminosae	Tree	Babul	Gum is used in recovery of ladies weakness.	Gum: 250/Kg
16	<i>Annona squamosa</i> L. Annonaceae	Shrub	Sheetaphal	Dried fruit powder is given in diarrhea.	Fruit:90/kg
17	<i>Anogeissus latifolia</i> (Roxb.exDc.) Combretaceae	Tree	Dhawada	Gum is taken by ladies to increase strength after delivery.	Gum: 400/Kg
18	<i>Asparagus racemosus</i> Willd. Asparagaceae	Climber	Sesliya ghas, sevariya	Root paste is taken to increase fertility in woman and sexual debility in man.	Root: 200/kg
19	<i>Buchanania cochinchinensis</i> (Lour)Almeida. Anacardiaceae	Tree	Chironji	Seeds are used to cure urinary disorder.	Seed: 220/Kg
20	<i>Cassia fistula</i> L. Leguminosae	Tree	Garmala	Seed Powder is used in diarrhea.	Seed: 90/Kg

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21	<i>Bambusa bambos</i> (L.) Voss. Poaceae	Shrub	Bans, Vasani	Tender stems are eaten to cure the kidney troubles.	Stem: 30/Kg
22	<i>Phoenix sylvestris</i> (L.) Roxb. Arecaceae	Tree	Sindhi (Nira)	Juices are good for health and used as tonic.	1Bottle juice 20/Kg.Fruit: 15/kg
23	<i>Borassus flabellifer</i> L. Arecaceae	Tree	Tadi, Tad	Juice is taken as tonic. Male flowers are eaten by woman to desire son.	1 bottle juice: 40/ kg
24	<i>Ziziphus jujuba</i> Mill. Rhamnaceae	Tree	Ber, Buri	Fruits are eaten for good health.	Fruit: 20/Kg
25	<i>Tribulus terrestris</i> L. Zygophyllaceae	Shrub	Gokhuru	Fruits are consumed in urinary troubles.	Seed:15/Kg
26	<i>Baliospermus montanum</i> Mlume Euphorbiaceae	Shrub	Jangle Jamal ghota	Seed is used to relieve constipation. Root powders are administered to relieve stomachache.	Fruit: 200/Kg
27	<i>Acacia catechu</i> (L.F.) Wild. Leguminosae	Tree	Kher	Gum is served to women after child delivery to provide strength.	Gum:250/kg
28	<i>Phyllanthus amarus</i> Schumach.&Thonn. Phyllanthaceae	Herb	Bhui Aavla	Paste of the plant is given in fever and jaundice.	Whole plant: 350/Kg
29	<i>Gymnema sylvestre</i> R. Br. Apocynaceae	Shrub	Gudmar	Leaves are given to treat diabetes and cough.	Leaf: 80/Kg
30	<i>Wrightia tinctoria</i> (Roxb.) R. Br.Mem. Wern. Soc. Apocynaceae	Tree	Indrajau	Seed decoction is given to cure fever.	Seed:85/Kg

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**REFERENCES**

- Bharti A and Kumar M (2014).** Traditional drugs sold by herbal healers in Haridwar, Uttarakhand, India. *Indian Journal of Traditional Knowledge, NISCAIR* 13(3) 600-605.
- Ignacimuthu S, Ayyanar M and Sankarsivaraman K (2006).** Ethnobotanical investigations among tribes in Madurai district of Tamil Nadu, India. *Journal of Ethnobiology and Ethnomedicine* 2 1-25.
- Jain SK (1991).** *Dictionary of Indian Folk Medicine and Ethnobotany*, (Deep Publications, New Delhi, India).

**Research Article**

**Jain SK and Rao RR (1977).** *A Hand Book of Field and Herbarium Method*, (Today and Tomorrows Oxford and IBH Publishing House, New Delhi, India).

**Kadel C, Wagh VV and Jain AK (2011).** Some ethnomedicinal plant species of Jhabua district, Madhya Pradesh. *Indian Journal of Traditional Knowledge, NISCAIR* **10** 538-540.

**Martin GJ (2008).** *Ethnobotany: A Method Manual*, (Earthscan, London, UK).

**Mudgal V, Khanna KK and Hajra PK (1997).** *Flora of Madhya Pradesh, 2*, (BSI Publication, Kolkata, India).

**Patil YA and Patil MV (2011).** Ethnomedicinal claims of some botanicals sold by vendors in North Maharashtra (India). *Journal of Ecobiotechnology* **12** 40-42.

**Samvatsar S (1995).** *The Flora and Western Tribal of MP*, (Scientific Publisher, Jodhpur, India).

**Sikarwar RLS, Tripathi M and Pathak B (2012).** Ethnomedicinal Plants sold by herbal vendors in the Kamadagiri Parikrama marg in Chitrakut (MP). *Ethnobotany* **24** 114-118.

**Singh NP and Karthikeyan S (2000).** *Flora of Maharashtra State, Dicotyledones, 1*, (BSI Publication, Kolkata, India).

**Singh NP, Khanna KK, Mudgal V and Dixit RD (2001).** *Flora of Madhya Pradesh, 3*, (BSI Publication, Kolkata, India).

**Sinha BK & Dixit RD (2003).** Ethnomedicinal plants sold in Omkareshwar, Madhya Pradesh. *Ethnobotany* **15** 127 -128.

**Sinha RK (1991).** Anti Tumour activities of some traditional Plants used by the mobile tribal medicine men (the street herbal vendors) in India. *Journal of Science Research Plant* **12** 1-5.

**Sinha RK and Nathawat GS (1989).** Medicinal Plants and Plant Product used in the treatment of some respiratory disorder by street herbal vendors. *Journal of Science Research Plant* **10** 1-5.

**Verma DM, Balakrishna NP and Dixit RD (1993).** *Flora of Madhya Pradesh 1*, (BSI Publication, Kolkata, India).

**Wagh V, Jain A and Kadel C (2010).** Role of non timber forest products in the livelihood of tribal community of Jhabua district (MP). *Biological Forum* **2** 45-48.

**Yadav SR and Sardesai MM (2002).** *Flora of Kolhapur District*, (Shivaji University, Kolhapur, India).