

## Survey of Medicinal Plants in Forest Region of Chimur Tahsil, Chandrapur District, Maharashtra



### Botany

**KEYWORDS :** Medicinal plants, ethno medicinal uses, Local peoples, Maharashtra

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### ABSTRACT

*The study of local knowledge about natural resources is becoming increasingly important in defining strategies and actions for conservation of forests. This study therefore sought to collect information from local peoples concerning the use of medicinal plants in forest region of Chimur Tahsil. A total of 43 medicinal plants used locally for treatment and control of human ailments; this information was collected through interviews conducted during 2014-2015 with tribal settlements, medicine men, mukhia, vaidus and some experienced persons. This study demonstrated that local people tend to agree with each other in terms of the plants use and that leaf material from the major component of plant parts exploited. The other harvested materials consist of fruits, roots, stem or stem bark, seeds, whole plant and flower. Majority of the remedies were prepared from a single species. In the forest, some of the plants collected were scarce. This scarcity was attributed to indiscriminate logging, over exploitation, poor harvesting methods and current agricultural trends. Conservation procedures and creation of awareness were identified as the main remedies to the current situation.*

### INTRODUCTION

The traditional medicine is used in all parts of the world and has a rapidly growing economic importance, mainly by the use of medicinal plants that have a respectable position today, especially in the developing country (Agra *et al.*, 2007) where the modern health service is limited and represent the only accessible treatment. Globally, about 85% of the traditional medicines used for primary healthcare are derived from plants (Farnsworth, 1988).

There has been a rapid extension allopathic system of medicinal treatment in our country during the past century (Dwivedi *et al.*, 2007). However, these drugs have adverse effect and people are going back to nature with hope of safety and security. On the other hand, herbs are safe, cheaper, easily available and with no fear of any side effects. It is evident that many valuable herbal drugs have been discovered by knowing that particular plant was used by the ancient folk healers for the treatment of some kind of ailment (Ekka and Dixit, 2007). In India, it is reported that traditional healers use 3000 plant species and 100 species of plants serve as regular source of medicine (Pie, 2001).

Chimur Tahsil in Chandrapur District, Maharashtra is one of the places in India where, lots of people used herbal medicine for primary health care. Chimur town is the headquarters of Chimur Tahsil which is located 70 km towards North from District headquarters Chandrapur. Chimur is located at coordinates 20° 29'49"North and 79°22'36"East. The famous Tadoba Andheri Tiger Project and National Park is at a distance of 30 km from Chimur. Most of the regions are covered by the forest in Chimur Tahsil. Chimur areas are covered with Semi evergreen forest inhabited by the rural population of tribal people (Gond). In this forest regions lot of medicinally important plants are found which are used by the tribal people for curing various diseases. In the paper, ethno medicinal uses of 43 plants in the treatment of different ailments by the local people of Chimur Tahsil have been reported.

### METHODOLOGY

During the field surveys plants were collected with detailed information regarding their use by the local people of Chimur Tahsil in Chandrapur District during the year 2014 – 2015.

The method of collecting information about the medicinal plants was based on personal interview with tribal settlements, medicine men, mukhia, vaidus and some experi-

enced persons. Questionnaires were prepared to identify the indigenous knowledge of plant-based remedies from local peoples. At the end of each interview, the plant specimens were collected, dried by using routine botanical collection and herbarium techniques, identified and preserved (Jain & Rao 1997). Samples of recorded herbs, shrubs and trees were identified with the help of local floras and previous works (Theodore Cooke, 1967; Jain, 1991 and Naik, 1998). Plant based remedies have presented with botanical name of species followed by family, local name, parts used and ethno medical uses.

### RESULTS AND DISCUSSION

The survey gathered information on 43 plant species reported by the informants for their medicinal use (Table 1). The reported species were distributed among 27 botanical families and 37 genera were used as a medicine in the health care treatment.

Local people judiciously utilize the available natural wealth around them. They use most of the forest plant resources for herbal medicine. More or less all species available profusely in nature have been used by these people for generation together. Tribal use common forest medicinal plants for the relief of various ailments and also to preserve and promote their health by practicing their own methods. These methods are being considered safe and with lesser side effects. Hence, there is a need to explore the folk medicine to cure and prevent health related problems.

The most of the plant species reported were used for curing some of the important and common diseases such as epilepsy, mental disease, jaundice, fever, dysentery, cough, piles, skin disorder, ulcers, asthma, worms, bone-joining, arthritis, chronic cough, acidity, snake bite, malaria, typhoid, diabetes, blood-related diseases, urine-stone, paralysis etc. The different plant parts used as medicines in reported studies were leaves (34%) followed by fruits (19%), roots (17%), stem or stem bark (13%), seeds (12%), whole plant (3%) and flower (2%). Majority of the remedies were prepared from a single species. Domestication of medicinal plants is a suitable option for optimizing resource utilization, as well as decreasing over dependence on wild habitats.

The observations emanating from the present survey need to be substantiated with pharmacognostical and phytochemical studies in order to evaluate their effectiveness.

Table no. 1- List of Plants with Botanical Name, Family, Local name, Part used and Medicinal uses

Sr. No.	Botanical name	Family	Local name	Part used	Medicinal uses
1.	<i>Abrus precatorius</i>	Fabaceae	Gunjawell	Leaves and Roots	Leaves and root paste are used for cure injury.
2.	<i>Ailanthus excelsa</i>	Simaroubaceae	Maharukh	Inner bark	Cure leukoderma.
3.	<i>Aloe vera</i> (L.) Burm. F.	Liliaceae	Korphad	Leaves	Cure skin problem.
4.	<i>Annona reticulata</i>	Annonaceae	Ramfad	Fruits	Cure blood-disorder, dysentery and used as anthelmintic.
5.	<i>Annona squamosa</i> L.	Annonaceae	Sitaphal	Leaves	Leaf juice is used as antiseptic in animal wounds.
				Roots	Powder of <i>Annona squamosa</i> roots and <i>Tamarindus indica</i> leaves is given for weight loss.
				Seeds	Seeds powder of <i>Annona squamosa</i> , <i>Mucuna pruriens</i> and <i>Abrus precatorius</i> (white) is given to men for strength.
6.	<i>Asparagus recemosus</i> W.	Liliaceae	Shatavari / Marbat	Roots	Root extract used in stomach pain, colic, indigestion, permato-urea, spermatorrhea, increases lactation and increases strength.
7.	<i>Bacopa monnieri</i> (L.)	Scrophulariaceae	Brahmi	Whole plant	Whole plant decoction used in asthma and snake-bite, also used in epilepsy, pox, fever, cough and inflammation.
8.	<i>Bambusa arundinacea</i>	Poaceae	Bamboo	Leaves	Leaves are used to remove urine-stone.
9.	<i>Calotropis gigantea</i>	Asclepiadaceae	Rui	Leaves	Leaves warmed in coconut oil are applied on inflamed part of the body.
10.	<i>Calotropis procera</i>	Asclepiadaceae	Rui	Stem (Latex), and Flower	Half headache, removal of spine, severs jaundice, fever, dysentery, cough, piles and indigestion.
11.	<i>Careya arborea</i>	Lecythidaceae	Kumbhi	Fruits	Protect from sunstroke.
12.	<i>Carum copticum</i> L.	Apiaceae	Ova	Fruit	Fruits are used to cure cough, cold and arthritis.
13.	<i>Cassia occidentalis</i> L.	Caesalpinaceae	Tarvat	Roots	Cure bone fever.
14.	<i>Cassia tora</i> L.	Caesalpinaceae	Tarota	Seeds and Leaves	Used in paralysis and intestinal disorder.
15.	<i>Celastrus peniculatus</i> Willd	Celastraceae	Bharati	Leaves	Leaf juice is used as a tonic.
16.	<i>Citrullus vulgaris</i>	Cucurbitaceae	Tarbuj	Fruits and seeds	Used in cough and jaundice.
17.	<i>Cuscuta chinensis</i> Lam.	Convolvulaceae	Adarvel	Whole plant (Vel)	Cure permato-urea, fever and dysentery.
18.	<i>Datura metel</i> (L.)	Solanaceae	Dhotra	Leaves	Leaf extract used in boils, skin diseases and as antispasmodic.
19.	<i>Dendrophthoe falcata</i> (L.f.) Elting	Loranthaceae	Vanda Temb-hur	Leaves and Stem	Help for Bone-joining.
20.	<i>Dioscorea pentaphylla</i> Linn.	Dioscoreaceae	Baichindi kanda	Roots (bulb)	Root paste used in scorpio bite.
21.	<i>Dodonaea viscosa</i> (L.) Jaeg.	Sapindaceae	Kali zilbuli	Leaves	Leaves paste is applied as a pain-relief.
22.	<i>Ficus mollis</i> Vahl.	Moraceae	Sonpakhad	Leaves and roots	Used to increase mother milk.
23.	<i>Ficus racemosa</i>	Moraceae	Umber	Fruits	Cure cough in children.
24.	<i>Ficus religiosa</i> L.	Moraceae	Pimpad	Bark	Bark powder fumigates on cow dung fire mixed with water given to children to treat throat infection.
25.	<i>Haldina cordifolia</i>	Rubiaceae	Harduli	Leaves	Leaves are used in fever and chronic cough.
26.	<i>Hardwickia binata</i>	Caesalpinaceae	Ajan	Leaves	Prepared tonic for strongness.
27.	<i>Jatropha curcas</i>	Euphorbiaceae	Jangli Erand	Latex of stem and leaf	Latex from the stem and leaf taken orally along with ripe banana once or twice a day to check dysentery in adults.
28.	<i>Lawsonia inermis</i>	Lythraceae	Mahendi	Leaves	Leaf paste used on arthritis.
29.	<i>Limonia acidissima</i> (L)	Rutaceae	Kavat	Bark and Fruit	Unripe fruit paste taken orally twice a day for three days to check diarrhea, used in acidity and for snake bite.
30.	<i>Luffa echinata</i> Roxb.	Cucurbitaceae	Devdongari	Leaves	Cure epilepsy.
31.	<i>Merremia gangetica</i> (L) Cufod.	Convolvulaceae	Gopan	Roots	Roots are used for fever.

32.	<i>Mitragyna parvifolia</i>	Rubiaceae	Kadam	Fruits	Fruit are used to kill pain and as anti-inflammatory agents.
				Leaves	Wounds and ulcers.
				Stem bark	Bark is used in blood-related diseases.
				Bark and Root	Bark and root are used in fever, colic, muscular pains, burning sensations in the stomach, used in poisoning, female problems, coughs.

33.	<i>Phyllanthus emblica</i>	Euphorbiaceae	Awla	Fruits	Fruits are used to keep hairs black and used in typhoid.
34.	<i>Phyllanthus fraternus</i>	Euphorbiaceae	Ran-awla	Fruits	Cure typhoid and help for keep hair black.
35.	<i>Physalis minima</i> Linn.	Solanaceae	Tankari	Fruits	Fruit are used for relieve pain.
36.	<i>Pongamia pinnata</i> L.	Fabaceae	Karanj	Bark	Bark powder of <i>Pongamia pinnata</i> , <i>Acacia nilotica</i> , <i>Azadirachta indica</i> and <i>Jatropha gossypifolia</i> is used for relieving toothache, swelling and also act as antidibetic.
				Seeds	Seeds powder and jaggeri mixed together and given to three days for curing cancer and heart-attack in initial stage.
37.	<i>Rauwolfia serpentina</i>	Apocynaceae	Sarpagandha	Roots	Roots are used in Colic pain.
38.	<i>Ricinus communis</i> L.	Euphorbiaceae	Arandi	Leaves	Leaf juice mixed with a cup of milk is used to cure jaundice.
				Roots	Root powder is given to ladies as strength promoter.
				Seeds	Abdominal pain, wound, jaundice and rheumatism
39.	<i>Sapindus emarginatus</i>	Sapindaceae	Ritha	Fruits	Used in hair Cleaning.
40.	<i>Semecarpus anacardium</i> Linn.	Anacardiaceae	Bibul	Seeds (Bibe)	Pain, used for black hair.
41.	<i>Syzygium cumini</i> L.	Myrtaceae	Jambhud	Seeds	Seeds are used in diebeties.
42.	<i>Tinospora cordifolia</i>	Menispermaceae	Gudwel	Leaves	Leaves are used in malarial and typhoid fever and also in diabetic.
43.	<i>Xanthium strumarium</i>	Asteraceae	Gokhru	Leaves	Leaves are used to treat rheumatism.

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