



Study of Ethno-Medicinal Plants Among the Tribals of Surguja Region (C.G.)

Anit Kumar Chatterjee

Research Scholar, Surguja University Ambikapur Chhattisgarh India 497001

Email: kanaksharma43@yahoo.com

Abstract- India is one of the world's 12 mega biodiversity centers having rich vegetation with 47000 plant species and a wide variety of medicinal plants along with tradition of plant based knowledge distributed among the vast numbers of ethnic groups.

Chhattisgarh is the only state of the country where about 44.2% (59772.2Heq) of the total area of state occupied by the forest (Tri pathi at 2006). Forest division of northern hilly zone of Chhattisgarh was surveyed to study the distribution pattern and ethno-botanical use of medicinal plants. In this state the percentage of sal and mixed forest is more than the teak forest. Chhattisgarh state is divided geographically in to three regions, namely Northern hills, Chhattisgarh plain and Bastar plateau.

The significant Tribes of the state are: Gond, Korwa, Oraon, Munda, Baiga, Nagesia, Agarias etc. The life style of tribal people Depends upon the land. Agriculture, hunting, fishing, collection of forest products, bamboo work or labour of any kind is their livelihood.

The paper reports the results of an ethno medicinal study conducted in Chhattisgarh. The study has been carried out in Odgi and Dipadih forest of surguja district. Medicinal uses of plant species are described in which different parts of plants are used in different diseases.

I. INTRODUCTION

Chhattisgarh, the 26th State of India is situated between 17 to 23.7 degree north latitude and 8.40 to 83.38 degree east longitude. Chhattisgarh abounds in hilly regions and plains. It receives an annual average rainfall of 60 inches. Rice is the principal crop of the State. Uttar Pradesh to the

north, Jharkhand to the north- east, Orissa to the east, Andhra Pradesh to the south-east and south, Maharashtra to the south-west and Madhya Pradesh to the west and north-west form its boundaries. A predominantly tribal State endowed with rich mineral and forest wealth, Chhattisgarh has about 35 big and

small tribes inhabiting the State. The climate of Chhattisgarh is mainly tropical, Humid and sub-humid. The climate is hot because of its position on the tropic of cancer. May is the hottest month and December and January are the coldest ones. The State is completely dependent on the monsoons for rains. The Mahanadi is the principal river of the State.

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Northern hill zone of Chhattisgarh comprises Surguja, Korea, Jashpur and Raigarh districts of Chhattisgarh which possesses a huge wealth of biodiversity of plants, especially in tribal habitats, where several naturally established herbal species are used as traditional and effective medication. Northern hilly zone of Chhattisgarh comprises of 36.35% of total area by the forest. The density of sal forest and mixed forest is higher in district surguja. Teak forest is in very low area. Sal forest provides comparatively more congenial habitat condition for the growth of diverse medicinal plant species, particularly the medicinal herb, shrub, and climber (Bisaria and Gill 1999). Herbal medicines are now a day's gaining a lot of popularity throughout the developed world. Species like Kalmegh (*Andrographis peniculata*), Kalihari (*Gloriosa superba*), Safad musli (*Chlorophytum borivillianum*), Ashwagandha (*Withania somnifera*) are in great demand and now considered as endangered species. Present study is therefore under taken to study the Ethno-medicinal use of different medicinal plant species in the forest area of northern hilly zone (Odgi and Dipadih) of surguja Chhattisgarh.

II. REVIEW OF LITERATURE

Ethno botany broadly means, all aspects of direct relationship of plants with man, according to Cotton

(1996) it's the study of all forms of vegetation used by aborigines. Man has been using flora and fauna since time of his emergence on this planet. He gained the knowledge of useful and harmful plants. This knowledge becomes an integral part of his culture. Studies in archaeology, paleobotany, and ethnography revealed the close relationship between plants and man. In India 2000- 1000 BC mentions are there in Rig-Veda and Atharveda about the uses of plants. Since then man knows the importance of plants.

Ethno botanical work in relation to primitive tribe was done by several workers like Elvin (1943) who provided valuable information with reference to Maria Gond of Bastar, Kamble and Pradhan (1980) on Korkus tribe of Maharashtra, Rao and Niyogi (1980) on Khasi and Garo tribe of Meghalaya, Shrivastava (1985) on Bhil tribe of Madhya Pradesh, Das and Mishra (1987) on Deomali tribe of Koraput, Orissa, Lal (1988) and Pandey et.al. (1991) on Baiga tribe, Goel and Mudgal (1988), Singh (2003) on Santhal parghanas tribe of Jharkhand, Jain (2002) conducted the phytochemical study on plants used by tribals in Hoshangabad, Madhya Pradesh. Following books were consulted during the study like the Flora of British India (Vol. I-VIII Hooker (1872-1897). Kritikar and Basu (1933-35) had written medicinal plants (4-volumes). Ambastha (1986) edited "The useful plants of India

III. METHODOLOGY AND RESULT

Ethno botanical field work was conducted in several tribal rich villages of Surguja district. Data on uses were recorded in the field from experienced people. Some very common plants like well known trees were not collected for voucher specimens. Only information provided by the tribal people for these species was recorded. The Ethnomedicinal information was obtained from knowledgeable person, experienced people, medicine men, and heads and local inhabitants of the village, who have knowledge of plants for health and livelihood security. The First hand information was recorded during the field visits to the study area. Field work was done as per planned schedule of field visit. Information collected through questionnaire and personal interview on the spot was the basic source of the knowledge in the present study.

Ethnomedicinal studies were conducted in the Two villages of district Surguja in Chhattisgarh state. All the villages were regularly visited and data was recorded by using following methods.

*Personal visits: Personal visits were made to the area selected for the study in all the seasons.

*Personal Interviews: Personal interviews were conducted with the knowledgeable persons, viz.

Village men, Birth attendants, Traditional Bone setters, traditional Ophthalmologists etc. Information's were collected by asking questions in interview session in their own dialect. Data was also recorded during the field visits in groups. Help was also taken from the forest officers posted in the area. Interviews were also conducted with rural development professionals working in the study area.

The tribals of Surguja have developed vast knowledge of plants as observed by the author during their field survey from July 2011 to June 2012 of ethno botanical work which they have acquired through their traditional practices since time immemorial. Use of certain plants for some particular purposes (e.g. Joint pain, Kidney stone, Worms, Sexual disease, Malaria, weakness etc) is restricted to some people only and normally they are quite reluctant to share their knowledge with any outsider. There is an urgent need of documentation of this irreplaceable knowledge. It may be lost when traditional cultures collapse with advent of modernization. Table-1 shows data related to plants which are used in different diseases.

Photograph of some the plants are given in Figures 1-6.

Almost all species are commonly available in the area but many people are not aware about their importance. Some species are facing threats due to various reasons and require immediate attention for their conservation.



Figure1-Anacyclus pyrethrum



Figure 2-Aloe vera



Figure 5- Smilax macrophylla



Figure 3-Asparagus racemosus



Figure 6-Macuna pruriens



Figure 4-Abutilon indicum

S. N.	Name of disease	Botanical name of the plant	Vernacular name of the plant	Family	Habit	Plant part used
1	Joint Pain	<i>Asparagus racemosus</i> , wild.	Satawar	Liliaceae	Climber	Tuber
		<i>Vitex negundo</i> , Linn.	Nirgundi	Verbenaceae	Herb	Root Leaves
		<i>Pongamia pinnata</i> (Linn.)	Karanji	Leguminosae	Tree	Seed, Bark
		<i>Costus speciosus</i> , Retz.	Keo-kand	Costaceae	Herb	Rhizome
2	Kidney Stone	<i>Boerhaavia diffusa</i> , Linn.	Pathribaji	Nyctaginaceae	Herb	Root
		<i>Mycrotyloma uniflorum</i>	Kulthi	Leguminosae	Climber	Whole plant ,seed
3	Leucorrhoea	<i>Butea monosperma</i> , Lam.	Palas	Leguminaceae	Tree	Flower, Root Bark
		<i>Punica granatum</i> Linn	Anar	Lytbraceae	Shrub	Flower.
		<i>Smilax macrophylla</i> , Roxb.	Ramdatoon	Liliaceae	Climber	Leaves, Stem
4	Malaria	<i>Andrographis paniculata</i> , Burm.f	Bhui neem	Acanthaceae	Herb	Whole plant
		<i>Tinospora cordifolia</i> , Willd.	Giloy	Menispermaceae	Shrub	Stem, Stem Bark
		<i>Azadiricta indica</i> A.juss	Leem	Meliaceae	Tree	Bark, Leaves
5	Male Impotency	<i>Alangium salviifolium</i> , (L:F)	Thelkajari	Alangiaceae	Herb	Whole plant
		<i>Peucedanum agpureense</i> , CB.Clarke.	Tejraj	Apiaceae	Herb	Whole plant
6	Sexual desease	<i>Peucedanum nagpureense</i> , CB.Clarke	Tejraj	Apiaceae	Herb	Leaves
		<i>Curculigo orchioides</i> , Gaertn.	Kalimusli	Hypoxidaceae	Herb	Root
		<i>Chlorophytum tuberosum</i> , Baker.	Kavra kanda / Safed musli	Sterculiaceae	Herb	Root
7	Tooth ache and Pyorrhoea	<i>Smilax macrophyla</i> , Roxb.	Ramdaton	Liliaceae	Climber	Stem, Leaves
		<i>Dioscorea daemona</i> , Roxb.	Koliyapad	Dioscoreaceae	Climber	Stem, Leaves
		<i>Spilanthes oleracea</i>	Akarkara	Asteraceae	Herb	Whole plant
8	Eye problems	<i>Aloe vera</i> , Linn	Ghritkumari	Liliaceae	Herb	Leaf pulp
9	Weakness	<i>Costus speciosus</i> , Retz.	Keo-kand	Costaceae	Herb	Root
		<i>Asparagus racemosus</i> , wild.	Satavari	Liliaceae	Climber	Root
10	Cuts & Worms	<i>Abutilon indicum</i> , Link	Kanghi	Malvaceae	Shrub	Root
		<i>Holarrhaena antidysenterica</i> , Well	Kurai	Apocynaceae	Tree	Seed, Bark, Leaves
		<i>Mucuna pruriens</i> , Baker non,D.C	Kevanch	Leguminosae	Climber	Seeds, Leaves

CONCLUSION

From this study, it could be concluded that Dipadih, and Odgi possess a mixed vegetation. However, concentration of dominance was found to be shared by

more than one species. Different parts of plants are used in curing different diseases. Such information should be spread among other societies living in urban area and villages.

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