

IMPORTANCE AND USES OF HERBAL PLANTS FOR OUR SOCIO-ECONOMIC GROWTH

Meenakshi Chandra¹ A.K. Shrivastava²

¹Research Scholar, Dr. C.V. Raman University Kota, Bilaspur (C.G.), India

²Dean, Faculty of Science, Dr. C.V. Raman University Kota, Bilaspur (C.G.), India

meenakshichandra2011@gmail.com, drakshrivastava01@gmail.com

ABSTRACT

Chhattisgarh State has a rich forest, covering 44% of the total geographical area of the state. Hence, Chhattisgarh has been declared as “Herbal State”, owing to its rich floral diversity and encompassing wealth of invaluable indigenous traditional knowledge base, inherent with tribal folk. The Herbal state of Chhattisgarh is situated in Deccan bio-geographical area, houses an important part of the rich and unique biological diversity. What is more conspicuous is that the state is significantly rich in endemism with respect to many plants having medicinal importance. The forests of the state fall under two major forest types, i.e., Tropical Moist Deciduous forest and the Tropical Dry Deciduous forest. The state of Chhattisgarh is endowed with about 22 varied forest sub-types existing in the state. Sal (*Shorea robusta*) and Teak (*Tectona grandis*) are the two major tree species in the state.

Chhattisgarh state has rich heritage of knowledge over plant-based therapy. Herbal plant plays measure role in the livelihood all over the world. The tribal people from this state use herbal plant for their primary health care system and betterment for socio-economic growth, mainly depends on traditional knowledge of medicinal herbs. Further it has been illustrated in detail the aspects of herbal plants for socio-economic growth.

Keywords: Herbal plant, traditional knowledge, tribal, socio-economic growth, herbs.

1.Introduction:

The state of Chhattisgarh is endowed with about 22 varied forest sub-types existing in the state. Sal (*Shorea robusta*) and Teak (*Tectona grandis*) are the two major tree species in the state. Other notable overwood species are Bija (*Pterocarpus marsupium*), Saja (*Terminalia tomentosa*), Dhawra (*Anogeissus latifolia*), Mahua (*Madhuca indica*), Tendu (*Diospyros melanoxylon*) etc. Amla (*Embilica officinalis*), Karra (*Cleistanthus collinus*) and bamboo (*Dendrocalamus strictus*) constitute a significant chunk of middle canopy of the state's forests. From the management point of view, there are four types of forests in the state of Chhattisgarh. These are Teak, Sal, Miscellaneous and Bamboo forests. Biogeographically, the state falls in Deccan bio-region comprising of representative fauna of central India viz: tiger (*Panthera tigris*), leopard (*Panthera pardus*), gaur (*Bos gaurus*), sambhar (*Cervus unicolor*), chital (*Axis axis*), nilgai (*Boselaphus tragocamelus*) and wild boar (*Sus scrofa*). The state is a proud shelter to rare wildlife like the wild buffalo (*Bubalus bubalis*) and hill myna (*Gracula religiosa*) which have been declared as rare and endangered. Apart from the species diversity, the state is also endowed with rich genetic diversity. The variation in the genetic composition of individuals within or among floristic and faunal species is large. India has a wealth of medicinal plants, most of which have been traditionally used in Ayurveda, Unani systems of

medicines and by tribal healers for generations. In ancient Indian literature it is clearly mentioned that every plant on this earth is useful for human beings, animals and for other plants (Oudhia 1999). In Ayurveda the medicinal values of rice have been described: rice is considered to be acrid, oleaginous, tonic, aphrodisiac, fattening, diuretic and useful in biliousness (Caius 1986). In Chhattisgarh rice is widely cultivated and the region is known as "the rice bowl of India". As no information on medicinal values and uses of traditional rice varieties in Chhattisgarh was available, a survey was conducted during 1999-2000 by the Department of Agronomy, Indira Gandhi Agricultural University, Raipur, India. The survey was conducted in selected districts: Raipur, Bilaspur, Durg, Rajnandgaon, Bastar and Sarguja. From each selected district, two blocks and from each selected block, a random sample of four villages was taken. The data were collected with the help of personal interviews on a well-prepared interview schedule. The respondents selected were (1) those having traditional knowledge about medicinal rice, and (2) those over 60 years of age. Anyone not meeting these criteria was rejected and finally 100 respondents were interviewed. More than 50 traditional rice varieties that possess medicinal properties were identified in the survey. Most of these varieties are under cultivation in very restricted areas. Inhabitants of Chhattisgarh use these medicinal rice varieties for the ailments of human beings and cattle (Table 1). In Chhattisgarh, generally rice is used in diets for the sick. During the survey it was noted that rice is invariably ordered as the safest and best food in all dysenteric complaints especially with curd. Rice water is recommended as an excellent demulcent, refrigerant drink in febrile and inflammation diseases and also in dysuria. It was also noted that inhabitants of Chhattisgarh region have named varieties on the basis of their medicinal properties. For example, medicinal rice variety "Laicha" was so named because of its unique property to prevent "Laicha" disease (skin infection). During the survey it was observed that the younger generation is less aware about these medicinal rice varieties than the older generations, so there is a strong need for documentation of this valuable information about the medicinal values of traditional rice varieties in the region.

My topic is related with dielectric properties of herbal based soil in relation to socio-economic growth. Dielectric behaviour of herbal based soil is very important and plays pivotal role. Dielectric constant is the most important parameter in microwave frequency for the study of dry and wet soils both active and passive. Dielectric properties are primarily a function of frequency, water saturation, porosity, texture, component geometry and electrochemical interaction. In addition to microwave remote sensing experiment require dielectric constant estimates of soil to retrieve the soil moisture content from the sensor data as their parameter strongly affects reflectivity and emissivity. Therefore, soil properties have to be understood and their knowledge should be utilized for better utilization for agriculture and sensor data.

Herbal plant plays pivotal role in the livelihood from all over the world eg state being placed in decan bio-geographical area. Different type of herbal plant found on Jaspur, Bilaspur, Raipur, Durg and Bastar region in Chhattisgarh. Herbal plant plays very important key role in our health care system and improve socio- economic growth of triable communities' people. According to world health organization estimated that 80% the population of developing countries relies on traditional medicines mostly plant drugs for primary health care need.

WHO has listed 21000 plants which are used for medicinal purpose around the world. 2500 species are found in India out of 150 species are used commercially used in large scale India is the biggest producer of medicinal herbs. At present time modern pharmacopoeia still contains at least 25% drugs derived from plants. According to WHO the international market of herbal product is around \$ 56.2 billion which is poised to grow to \$5 trillion by the year 2050. The government of Chhattisgarh work some initiative for the uplifting forest dwellers. Such as 30 exclusive “Sanjeevani” it is retail store for cg herbals. Another initiatives Self Help Group (SHGs) these are the specially run by women. These all schemes are based on herbal product market. It is very effective for socio- economic growth in our state Chhattisgarh.

2. Theoretical Considerations:

The study was carried out in Bilaspur, Jaspur and Bastar region herbal garden of Chhattisgarh state. The district of Bilaspur has approximately 30 -40 % population of tribal. The district of Jaspur have approximately 77% population of tribal. The district of Bastar have approximately 70 % population of tribal. The total tribal communities 30.26% is found in C.G. Main tribal population are found in Chhattisgarh Gond, Baiga, Ayariya, Agharia, kanwar , Abhuj-maria, Bhatra, Muria, Urao. These tribal communities are very close to nature. The valuable herbal plant collected from herbal garden Bilaspur, Bastar and Jaspur and identify with their scientific name based on local name. all botanical information of these plant wise evaluated and confirm from the plant of the world online database site.

TABLE: 1 HERBAL PLANTS USED BY TRADITIONAL HEALERS FROM CHHATTISGARH IN INDIA

Botanical Name	Family	Local name	Parts used	Medicinal Uses
Abelmoschus Moschatus	Medik.	Jangali bhindi	Root, Seed	Seeds are diuretic, aphrodisiac, ophthalmic, carminative, stimulant, cough, asthma, and other neural disorders,
Acorus calamus L.	Acoraceae	Baj	Root	Headache Anti-bacterial, anti-helminthic Fever, asthma, bronchitis, cough,.
Adenostemma lavenia (L.)	Kuntze Aste	Jangali-jira	Flower	Flowers used for increasing saliva so useful in treatment of mouth dryness. Leaves paste use in wound healing
Aegle marmelos (L.) Correa	(Rutaceae)	Bel	Fruit, Root	Astringent, antidiarrheal, antidysentric, demulcent, antipyretic, laxative
Aesculus indica (Wall. ex Cambess.) Hook.	Sapindaceae	Panker	Fruit	Rheumatism (warm paste applies on affected part).

Allium Cepa L.	Amaryllidaceae	Pyaj	Bulb	Roasted warm bulb is eaten in abdominal pain and skin diseases and also used in malaria, diarrhea
Asparagus curillus	Asparagaceae	Safed Musli	Root	Root powder is administered as sexual tonic along with dysuria, diabetes and dysentery
Boerhavia diffusa L.	Nyctaginaceae	Punarnava	Root	Juice of fresh roots is used as eye drops very useful tonic to liver problem, jaundice,
Bombax ceiba L.	Malvaceae	Saimul	Leaf, Root	Leaves paste applies over wounds with good property of pain killer and improve gynecological disorders
Boswellia serrata Roxb.	Burseraceae	Sallai	Bark	Hot decoction of bark used in wound chronic inflammatory diseases diarrhea
Buchanania cochinchinensis (Lour.) M.R. Almeida	Anacardiaceae	Achar	Leaf	Very effective in dental pain when gargle the juice twice daily asthma cancer
Butea monosperma (Lam.).	Kuntze Fabaceae	Dhak, Palash	Flower	The flower extract with water useful in gastritis . Gum from bark known as Bengal Kino useful in treatment of ulcer,
Byttneria herbacea Roxb.	Malvaceae	Kamraj	Root	Root paste used in fever and leucorrhoea
Cajanus scarabaeoides (L.) Thouars	Fabaceae	Chowkhara	Leaf	Crushed or rubbed leaves applied in throat disease,
Callicarpa macrophylla Vahl.	Lamiaceae	Daya	Fruit	Very helpful in urinary disorders, skin problem,
Cydonia oblonga Mill.	Rosaceae	Bihi	Leaf, Seed	Leaves having phenolic compounds as antioxidants properties, Seeds used in diarrhea, dysentery, cough, sore throat
Datura stramonium L.	Solanaceae	Dhatura	Flower	Flower's juice used in earache having analgesic and antiasthmatic activities
Euonymus tingens Wall	Celastraceae	Kusum	Whole plant	Used orally kidney stone and eye diseases.

Ficus auriculata Lour	Moraceae	Timil	Whole plant	Bark and root show hypoglycemic and anthelmintic activity.
Ficus benghalensis L.	Moraceae	Bargad	Fruit, Bark	fruit, bark are useful in central nervous system
Ficus palmata Forssk.	Moraceae	Bedu	Fruit	Fruits are beneficial in lung and bladder diseases
Hydrocotyle	Araliaceae	Brahmni	Leaf	Leaf juice is administered orally in Manasdaurbalya
Hygrophila auriculata (Schumach.) Heine	Acanthaceae	Talmakhana	Seed	whole plant extract used in treatment of urinary infection, gout, hepatic obstruction and as a diuretic
Hypericum japonicum Thunb.	Hypericaceae	Chhingewali	Whole plant	Plant powder is used as snuff for nose disease
Jacobaea nudicaulis (Buch.-Ham. ex D.Don) B.Nord.	Asteraceae	Nil kanthi, Ratpatia	Whole plant	Plant juice applied in eye diseases, wound, fever and some skin diseases

Sl..No.	In year	Exported Amount	Product
1.	2017-18	330.1 million	Herbal product
2.	2018-19	456.12 million	Herbal product
3.	2019-20	446.13 million	Herbal product
4.	2020-21	428.08 million	Herbal product
5.	2021-22	612.1 million	Herbal product
6.	2022-23	628.25 million	Herbal product

Table: 2 Different Herbal Products with Exported Amount Year Wise

3. Results and discussion:

Herbal plants are very beneficial for human being. Really it is panacea for life. It has been found that several plants are useful for medicinal aspects. Apart from these the vast cultivation of herbal plants enriches the life smart and sooth.

4.Conclusion :

In this present time large number of herbal plants are used herbal medicines. The demand of herbal medicine has been increasing in developed and developing counties because they do not have any side effect and available at affordable prices. Hence there is a need for cultivation, conservation, maintenance and sustainable use of herbal plants. As the demand for medicinal plant is increasing as people are more fascinated towards herbs. The valuable medicinal plant can be assembled and grown in herbal garden and propagated for large scale distribution NMPB focus on cultivation and propagation of medicinal herbal plants.

5.References:

1. Adhikari B.S, Babu MM, Saklani PL, Rawat GS. (2010), Medicinal Plants Diversity And Their Conservation Status In Wild Life Institute Of India (WII) Campus Ethnobotanical leaflets. 14(1):46-83.
2. CCRS. An Appraisal of Tribal (1999) – Folk Medicines. Vijay Nagar, New Delhi
3. Gaur R.D. (2008), Traditional Dye Yielding Plants of Uttarakhand, India. Natural Product Radiance, 7(2):154-165.
4. Joshi B, Pant Sc. (2012), Ethnobotanical Study of Some Common Plants Used Among The Tribal Communities of Kashipur, Uttarakhand. Indian Journal of Natural Products and Resources. 3(2):262-266.
5. Sharma L, Agrwal G, Kumar A. (2003), Medicinal Plants For Skin And Hair Care. Indian Journal of Traditional Knowledge, 2(1):62-68.
6. Verma, D.M.; Balakrishnan, N.P. and Dixit, R.D. (1993), Flora Of Madhya Pradesh : Vol. I. Botanical Survey of India, Calcutta.