

Socio-Economic Importance of Some Plants Species Used By the Tribes of Chanda Forest District Dindori Madhya Pradesh, India

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Abstract: *The paper highlighted of some important Ethnomedicinal plants which are used in various disease by the tribals of District Dindori Madhya Pradesh. The rural and the tribal folk form majority of the population of district and most of them are economically backward. Some steps are needed for the economic upliftment of these backward people which will not require major monetary input or skilled labour. The most easy and adaptable mode of employment is the gainful exploitation of plants and plant products available in the vicinity for their economic betterment.*

Keywords: Socio-economic, Tribes, Dindori, Ethnomedicinal plants, Madhya Pradesh.

1. Introduction

An Ethnobotanical relationship is already existent between the inhabitants and plant in the forest. The tribals collect fuel, from the forest around them. A base thus already exists for the exploitation of the forest products as a source of income. The plants grow around the dwellings of the tribals, who utilize many plants as food, herbal drugs, ropes, strings, oils, fats, flavours and dyes. These tribes men have developed a good expertise to locate, harvest and process these useful materials.

Among the plant products, some of them have good scope economically such as essential oil bearing plant, oil-seed plants, gums and resins, fruits and nuts, vegetables and specially the medicinal herbs as a recent spit in the manufacture of herbals drugs that has created a great demand for medicinal plants. There are some plants which can be formed into items of value such as ropes and other cordages, baskets, mats, other, woven products, brooms, brushes, agricultural implements etc. the expert capacity of locating and collecting these useful plants and techniques for their subsequent processing and utilization is already available with the people living in these forests or villages of the dense rural areas, but the need is to convince them of the benefits which can solely be theirs. Such type of studies has been made by many workers Agrawal 1980, Arora 1989, Brijlal and Dubey 1992, Oommachan 1988, Maheshwari and Dwivedi,1988, Khan and Khan 1997, Verma et al. 1995 and Kaushik and Dhiman 2000 and Ahirwar,2015.

2. Materials and Methods

Chanda forest is located in Dindori District, Madhya Pradesh, India and also known as Central India. It is lying between 80°12" to 23°12" N Latitude and 80°18" to 81°51" E Longitude and total area to 8771 Sqm. Dindori District is surrounding by North District Umaria, South District Kaverdha, Chattishgarh State ; East District Shahdol. The District has average rainfall 1400 mm, and temperature 45°C Maximum in June and 02° C Minimum

in December. Chanda forest is total area of 2181.14 hectare. Chanda forest is a very rich of Botanical wealth and a large number of diverse wild edible plants that are used by different Ethinc people for medicinal purpose grow wild in different parts of the country. The tribal people of the Chanda forest district Dindori practice a various range of occupation such as hunting, gathering, fishing, plough agriculture and shift agriculture is the main stay of the tribals. Regardless of their principal mode of subsistence they collect and consume major and minor forest product (Figure 1 and Figure 2).



Figure 1: Location Map of India in Madhya Pradesh

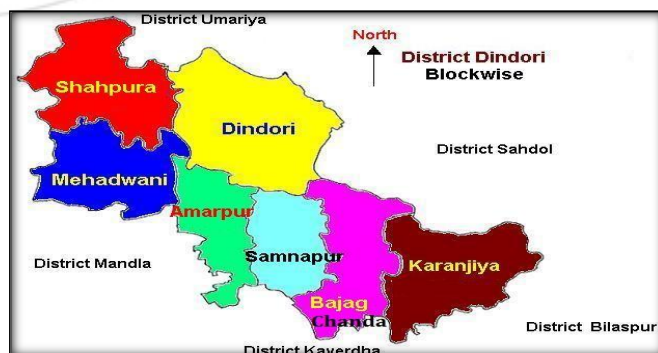


Figure 2: Location Map of study area, District Dindori, Madhya Pradesh

3. Results and Discussion

The present study has revealed that the resources of the District Dindori are rich in raw materials for establishing many cottage industries. A systematic account is enumerated below.

3.1 Fiber, Mats and Baskets: There are many species of plants which are used for making fibers and utilised in different ways economically. Fibers obtained from 'Akwan' (*Calotropis gigantea* (L.)), 'Bhang' (*Cannabis sativa* (L.)), 'Sanai' (*Crotalaria juncea* (L.)), 'Kusha' (*Desmostachys bipinnata* (L.)), 'Murra' (*Helicteres isora* (L.)), 'Kachnari' (*Bauhinia vahlii* (W. & A.)), 'Munj' (*Saccharum Bengalese* (R.)), 'Udari' (*Sterculia villosa* (R.)), and 'Chhindi' (*Phoenix sylvestris* (L.)) are used for making ropes and fishing nets. The fibers of 'Sanai' and 'Murra' are obtained after retting the stem.

The stem of 'Arhar' (*Cajanus cajan* (L.)), 'Bent' (*Calamus tenuis* (R.)), 'Dudhbela' (*Ichnocarpus frutescens* (L.)), 'Baans' (*Dendrocalamus strictus* (N.)) and 'Chheola' (*Butea monosperma* (Lamk.)) are used for making baskets where as 'Murra' (*Helicteres isora* (L.)) and 'Kulari' (*Phragmites maxima* (F.)) are used in making mats.

An organised collection of these plants should be arranged as there is much scope for utilising these plants in minor forests products industry.

3.2 Herbal Drugs or Ethnomedicinal Plants: - District Dindori is inhabited by a large number of Ethnomedicinal plants occurring naturally in the forest areas. Different species like 'Satawar' (*Asparagus adscendens* (R.)), 'Bahera' (*Terminalia bellirica* (R.)), 'Harra' (*Terminalia chebula* (Netz.)), 'Amla' (*Emblica officinalis* (G.)), 'Amaltas' (*Cassia fistula* (L.)), 'Dudhi' (*Holarrhena antidysenterica* (A.D.C.)), 'Bidarikand' (*Pueraria tuberosa* (D.C.)), 'Kali musli' (*Curculigo orchioides* (G.)), 'Bishari' (*Elephantopus scaber* (L.)), 'Brahmi' (*Centella asiatica* (L.)), 'Murra' (*Helicteres isora* (L.)) are very much important medicinally and their organised collection should be encouraged.

Some species like *Cynoglossum lanceolatum* (Forsk.) are used in the treatment of stomach disorder and *Helminthostachys zeylanica* (Hask.) and *Murraya paniculata* (Koeng.) are used in the treatment of Arthritis. The leaves of *Centella asiatica urban* (L.) and *Caesulia axillaris* (R.) act as source of energy to young and old equally. Some species like *Asparagus racemosus* (Willd.) which are very important medicinally contain some essential oils, Asparagin and Tyrosin as its major ingredients. *Heydychium coronarium* (Tuber.) is used to treat optic disorders.

These drug plants can be further investigated for their active principals and tested for all the pharmacological and clinical trials and then be released for safe use as drugs by urban peoples. Thus studies will bring to light some new sources of medicine of herbal origin

3.3 Timber for Agriculture, construction and musical instruments: Stems of many species such as 'babul' (*Acacia nilotica* (Willd.)), 'Khair' (*Acacia catechu* (Willd.)), 'Haldu' (*Adina cordifolia* (Hook.)), 'Chheola' (*Butea monosperma* (Taub.)), 'Shisham' (*Dalbergia sissoo* (Roxb.)), 'Semal' (*Salmalia malbarica* (Schott & Endl.)), 'Sarai' (*Shorea robusta* (Gaertn.)), 'Jamun' (*Syugium cumini* (Skeels)), 'Amla' (*Emblica officinalis* (Gaertn.)), 'Sagaun' (*Tectona grandis* (Linn.)), 'Mahua' (*Madhuca latifolia* (Roxb.)), 'Baans' (*Dendrocalamus strictus* (Roxb.)), and 'Aam' (*Mangifera indica* (Linn.)) are of much economic value as they provide timber useful in house building for making the framework.

Wood of 'Mahua' (*Madhuca latifolia* (Roxb.)) and 'Chheola' (*Butea monosperma* (Lamk.)) are also of much economic value as they are useful in making agricultural implements like plough and field leverler. Wood of species like 'Bara neem' (*Toona ciliata* (Roem.)) and 'Sawan' (*Gmelina arborea* (Roxb.)) are used for making the frames of musical instruments like 'Dholki' and 'Mandar'.

Steps may be taken to utilise the wood resources of the district for the betterment of the tribals residing there.

3.4 Oil Seeds: - Seeds of some species like 'Mahua' (*Madhuca latifolia* (Roxb.)), 'Sarai' (*Shorea robusta* (Gaertn.)), 'Bhakreda' (*Jatropha gossipifolia* (Linn.)), 'Arandi' (*Ricinus communis* (Linn.)), 'Anijum' (*Celastrus paniculatus* (Willd.)) and 'Alsi' (*Linum ussitatissimum* (Linn.)) yield edible and non edible oils which can be of much commercial value. A systematic collection and processing of these seeds should be organised in the district which generate much employment for the tribal peoples.

4. Miscellaneous

4.1 Firewood - The wood of species like 'Aam' (*Mangifera indica* (L.)), 'Sejhi' (*Lagerstroemia parviflora* (Roxb.)), 'Phulchuhya' (*Lantana camara* (Linn.)), 'Tendu' (*Diospyrus melanoxylon* (Roxb.)), 'Lalphulchuhya' (*Woodfordia floribunda* (Kurtz.)) are used as firewood.

4.2 Brooms - Branches and Inflorescences of the species like 'Arhar' (*Cajanus cajan* (Linn.)), 'Chhindi' (*Phoenix sylvestris* (Linn.)), 'Seenk' (*Vetiveria zizanioides* (Linn.)), are used to make brooms.

4.3 Umbrella - Leaves of 'Mahul' (*Bauhinia vahlii* (W & A)), 'Bhelma' (*Semecarpus anacardium* (Linn.)), 'Sagaun' (*Tectona grandis* (Linn.)) and 'Sarai' (*Shorea robusta* (Gaertn.)) are tied with its own stalks and an a liner below a framework made up of 'Baans' (*Dendrocalamus strictus* (Roxb.)) to make umbrellas which act as a protection against Sun and rains when these tribals work in fields. These umbrellas can be sold in bulk in the local markets as items of Art and Culture thus fetching good price which will be helpful in raising the economic standard of the tribals of District.

4.4 Oral Hygiene - Tribals use toothsticks to clean their teeth. Sticks of species like 'Amrud' (*Psidium guajava*)

(Linn.), 'Bhirha' (*Chloroxylon swietinia* (D.C.), 'Neem' (*Azadirachta Indica* (Jues)), 'Ramdatun' (*Smilax prolifera* (L)), 'Patachata' (*Tephrosia purpurea* (Pers.)) are used as tooth sticks as tribals believe that these clean teeth well, stop bad breath and are healthy for gums. This claim has been proved correct by scientific analysis are these sticks contains some active principals which are good for teeth and gums.

4.5 Dyes - Tribals use different of dyes of herbals origin for different materials such as ropes, clothes and even hands/ feets. Such dye yielding species parts are leaves of 'Anguri' (*Ampelocissus latifolia* (Roxb.)), Flower of 'Chheola' (*Butea monosperma* (laml.)), leaves of 'Amla' (*Embllica officinalis* (Gaertn.)), 'fruits of Sandri' (*Mallotus phillippensis* (Muett. Arg.)) and leaves of 'Mehandi' (*Lawsonia inermis* (Linn.))

Systematic marketing of these dyes will yield good money. Thus it is evident that district is rich in raw materials for setting many cottage industries, through due care must be taken to preserve and maintain the cultural traditions of the tribals while undertaking the projects on tribals and their economic upliftment.

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References

- [1] Agarwal, V.S. 1980. Economic plants of India, Kailash Prakashan, Calcutta, India.
- [2] Ahirwar, R.K. "Ethno medicinal plants studies in Jaitpur Forest Range of Shadow District, Central India." *Ad. plant Sci.* 24 (2011): 681-684.
- [3] Ahirwar, R.K. 2014. Utilization of Medicinal Plants by the Tribes of Bhatiya, District Shahdol, Madhya Pradesh. *Int.J.Sci.and Res.*3(9),149-151.
- [4] Ahirwar, Ramesh Kumar and Girja, Kumar Singh (2011) Some anti diabetic plants from Dindori District of Madhya Pradesh (India). *Ind. J. Appl. pure Bio.*26 (2) 269-271.
- [5] Ahirwar, Ramesh Kumar (2010). Ethnomedicinal uses of plant roots from Shadol district of M.P. India. *Ind. J.Appl.Pure Bio.* 25 (1):71-76.
- [6] Ahirwar, R.K. (2015) Diversity of Ethnomedicinal Plants in Boridand Forest of District Korea, Chhattisgarh, India. *American Journal of Plant Sciences*, 6, 413-425. <http://dx.doi.org/10.4236/ajps.2015.62047>
- [7] Arora, R.K. 1989. Ethnobotany and plant domestication Global perspective in methods and Approaches in Ethnobotany, S.K. Jain (Ed.) Society of Ethnobotanists, Lucknow, India. pp. 49-57.
- [8] Brijlal and Dubey, V.P. 1992. A survey of the plant Ethnomedicine of Amarkantak Plateau in Central India. *Agri.Biol. Res.*8(1): 29-37.
- [9] Kaushik, P.1983. Ecological and Anatomical Marvels of the Himalayan Orchids. *Today and Tomorrow's*

Printers & Publishers, New Delhi. Pp Viii,123 plates 71.

- [10] Khan, A.A., Agnihotri, Santosh Kumar Singh Manoj Kumar and Ahirwar, Ramesh Kumar 2008. Enumeration of certain Angiospermic plants used by Baiga, Tribe for conservation of plants species. *Plant Archives*(8) 1:289-291.
- [11] Khan, A.A. Singh Pragyana and PandeyRajshree 2005. Herbal treatment curing children disease amongtribals of Shahdol district (M.P.) India. *Plant Archives*.5(1) 159-163.
- [12] Kaushik, P. and Dhiman, A.K. 2000. Medicinal plants and Raw Drugs of India. Bishen Singh Mahendra pal Singh, New Connaught Place, Dehra Dun, Pp. Xii,623, 60 colour plates 2 B.W. plates.
- [13] Khan, A.A. and Khan, I.M. 1997. Observation on certain plants used in various disease by the tribals of Shahdol district (M.P.).*Advances in plant sciences* 9(11) Suplement 39-43.
- [14] Maheshwari, J.K. and Dwivedi, R.P. 1988. Ethno medicinal plants of Bharia tribe of Patalkot valley, Chhindwara district M.P., pp 139-155. In P. Kaushik (Ed.) *Indigenous medicinal plants Including microbes and Fungi. Today and Tommorow's* New Delhi.
- [15] Maheswari, J.K. 1964. A Contribution to the Flora Kanha National Park, Madhya Pradesh *Bull. Bot. surv.India.* 5(2): 177-140.
- [16] Oommachan, M. and Masih, S.K. 1988. Multiferos uses of plants by the forest Tribals of Madhya Pradesh: Wild edible plants. *Journal of Tropical forestry.* Vol. 4(II): 163-169.
- [17] Parna, I.C., Ahirwar, R.K. and Singh, G.K. (2014) Traditional Medicinal Knowledge about Some Herbaceous Plants Used by Baiga Tribes of Bajag Forest, District Dindori Madhya Pradesh India. *Int.J.Sci. Res.*Vol.3 (12) 2232-2236.
- [18] Sexena, H.O.1986.Observations on the Ethnobotany of Madhya Pradesh. *Bull.Bot.Surv. India.*28:149-156.
- [19] Singh N.P, Khanna K.K, Mudgal V & Dixit R.D, Flora of Madhya Pradesh (Botanical survey of India).Vol. 3, 2001.
- [20] Verma, P.; Khan, A.A. and Singh, K.K. 1995. Traditional phytotherapy among the Baiga tribe of Shahdol districts of Madhya Prades, India, *Ethnobotany*, Vol.7pp.69-73