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## Ethnomedicinal study of plants used by tribal person for dysentery diseases in Tikamgarh district M.P

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### Abstract

The indigenous people of Tikamgarh district are reputed to have been treating many diseases effectively with plants. However documentation of these plants use is not available. The present study documented the medicinal plants used traditionally for the treatment of dysentery in the Tikamgarh district of Madhya Pradesh. Twenty two traditional healers were interviewed with the help of a prepared questionnaire. Plants that were cited were coded in the field for identification later. 38 plant species were cited for the treatment of dysentery respectively. Out of twenty two respondents had knowledge of plants used in treating dysentery were documented. The survey uncovered very important sources of cheap remedies for dysentery.

**Keywords:** Ethno medicinal, Tikamgarh, Dysentery, Kol, Gond, Mawasi

### Introduction

In recent years use of Ethnobotanical information in medicinal plant research has gained considerable attention in segments of the scientific community. (Heinrich 2000), Historically all medicinal preparations were derived from plants whether in the simple form of plant parts or in the more complex form of crude extracts mixture etc. The primary benefits of using plant derived medicines are that they are relatively safer than synthetic alternatives (Lwu *et al.* 1999) [18], The world health organization (WHO) reported that 80% of the world population are used to indigenous medicine and that the majority of traditional therapies involve the use of plant extracts or of their constituents. (Mahbubur 2013) [26], According to the National Medicinal plants board Govt. of India a number of 17000 to 18000 species of flowering plants are estimated of which 6000 to 7000 species are found to have medicinal uses in folk and documented system of medicine like Ayurveda Unani Siddha and Homoeopathy. In India use of plant based drugs and chemicals for curing various ailments and personal adornment is as old as human cultivation. Plants and plant based medicine are the basis of many of the modern pharmaceutical. (Abraham 1981. Ahirwar 2015) [2, 30].

### Material and method

Tikamgarh Districts of Madhya Pradesh, located on region of Bundelkhand in India it is spread from 78.26 to 79.21°. (Longitude) and 24.26 to 25.34° (latitude). The total Geographical area of Tikamgarh District is 5 048.00 km<sup>2</sup> and the total population is 1 202 998. The northern margin is very irregular. The maximum length of the district is about 119 km from North to South and width about 80 km. Tikamgarh District is bounded by Chhatarpur district to east, Lalitpur district to West, Jhansi to North and Sagar to South.

The climate of Tikamgarh district may be divided into Four seasons. The winter from December to February is followed by the summer from March to the middle of June. The period from mid-June to the end of September is the rainy season. The months of October and November constitute the post-monsoon or transition season. After February temperature rises gradually. May is the hottest month with mean daily maximum temperature at about 43 °C and low 29 °C. On individual day temperature may raise up to about 47 °C. The relative humidity is high during the monsoon season, generally above 70% while rest of the year the air is comparatively dry. The driest part of the year is summer season when the relative humidity is less than 20% in the afternoons. There is no Meteorological observatory but one rain gauge station located in the district at Tikamgarh. The average rainfall of the district is 40 inch varying from 33 inch to 54 inches.

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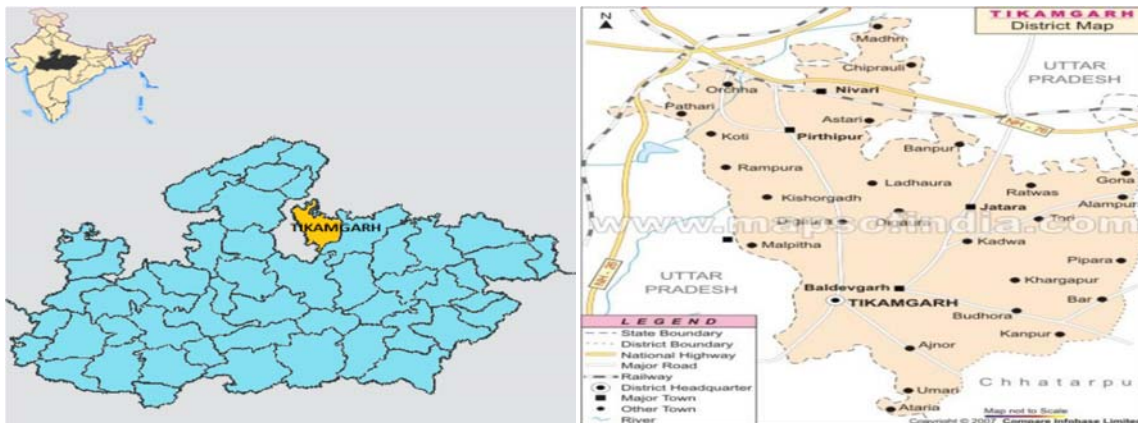
Rainfall in the district generally increases from north-west to south-west. Parts of the Niwari Tahsil, and Mohangarh of Jatara Tahsil also come 4 in the low rainfall zone. About 90% of the annual rainfall in the district is received during the south-west monsoon season, July being with heavy rainfall month.

The study was carried out at the 4 Tribal villages in each site were visited through periodical tour. Special attention was paid to record information from local traditional Herbal Healer (Vaidya). The information on home remedies using the preventive and curative values of different plant species documented involving the ethical guidelines adopted by the International Society of Ethno-biology. During the field trips local guide, villagers, traditional Herbal Healers (Vaidya). Tribal heads and Tribal persons are contacted and

enquired to gather related information. Identification of plants has been made through the local name of plant with the help of existing literature. The directory of Indian folk medicines and Indian Material Medica were consulted to confirm the identification and the medicinal use of plants mentioned in the paper.

An Ethnobotanical survey was conducted during the period of September 2015 to February 2016 in Tribal areas of district Tikamgarh, Madhya Pradesh. An extensive data sheet was prepared regarding the utility of plants and food and medicine, their application, doses and duration. The distribution was obtained by Tribal map of Madhya Pradesh,

**Showing Map of Madhya Pradesh and map of Tikamgarh district**

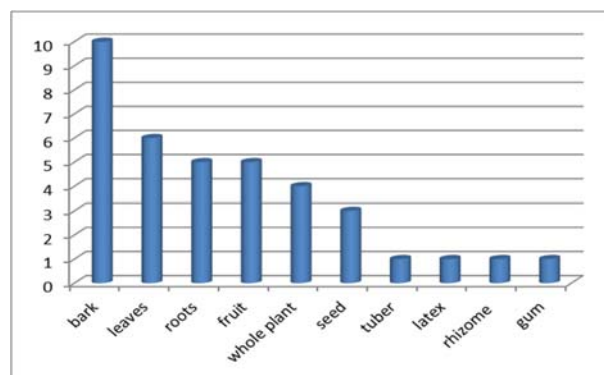


**Result and discussion**

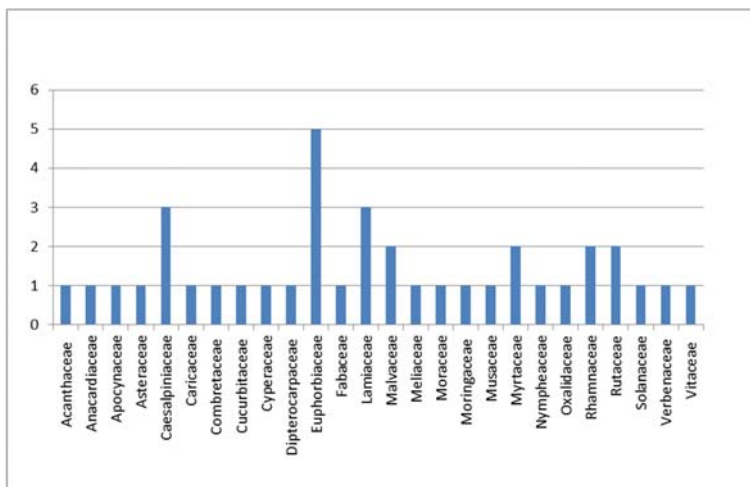
Traditional knowledge is known as a cumulative body of knowledge, practice and belief, evolving through adaptive processes and handed over through generations by cultural transmission (Berkes, *et al.*, 2003) [7]. Traditional medicine has worldwide acceptance and it is dependent on locally available plant species and plant-based products and capitalizes on traditional wisdom-repository of knowledge (Awas and Demissew, 2009) [5]. Cultural acceptability, economic affordability and efficacy against certain type of diseases as compared to modern medicines are the base of wide acceptance of traditional medicine. Thus, different local communities across the world have indigenous experience in various medicinal plants where they use their perceptions and experience to categorize plants and plant parts to be used when dealing with different ailments (Mishra, and Kumar, 2000, Omoruyi, *et al.*, 2012) [20, 24]. Plants have played a vital role in combating many ailments in human and livestock in many indigenous communities, Traditional healers, and particularly medicinal plant herbalists, in India and other part of the globe have a detailed knowledge-base of traditional medicine (Sindiga, *et al.*, 1995., Moshi, *et al.*, 2009, Gwalwanshi, *et al.*, 2014) [31, 21, 12]. which is transferred orally from one generation to the next through professional healers, knowledgeable elders and/or ordinary people (Giday, *et al.*, 2007) [11]. In India, traditional medicine has played a significant role in treating health problems in both livestock and humans (Abebe, 1986; Gebremariam and Asres, 1998; Debella, *et al.*, 2001; Addis, *et al.*, 2001) [10, 9, 3]. Knowledge of medicinal plants of India and of their uses provides vital contribution to human and livestock health care throughout the country (Belayneh, *et al.*, 2012) [6].

Surveys in tribal villages of four Tribal Village of Tikamgarh has been conducted. The details are as follows The enumeration of 38 medicinal plants being used by the traditional herbal healers (Vaidya, Ojhas, Guniyas) have been documented from Tikamgarh district. The Tribal uses different parts of plants which are locally available, incurring various types of diseases like Diarrhoea, Dysentery, Fever, Cough, Jaundice, Asthma, Skin disease, Piles etc. In case of Dysentery village people contact their local medicine practitioner to whom they call Vaidya (Traditional Herbal healer). The traditional herbal healing properties contain much medicine for a single ailment out of the various medicines one is selected by the Herbal Healer for curing a Out of 38 plant species, 26%species of herbaceous plants, 19% species of shrubs, 42% species of trees and 5% species of climbers and 5%species under shrub and 3% species of grass are used in preparation of traditional medicines.

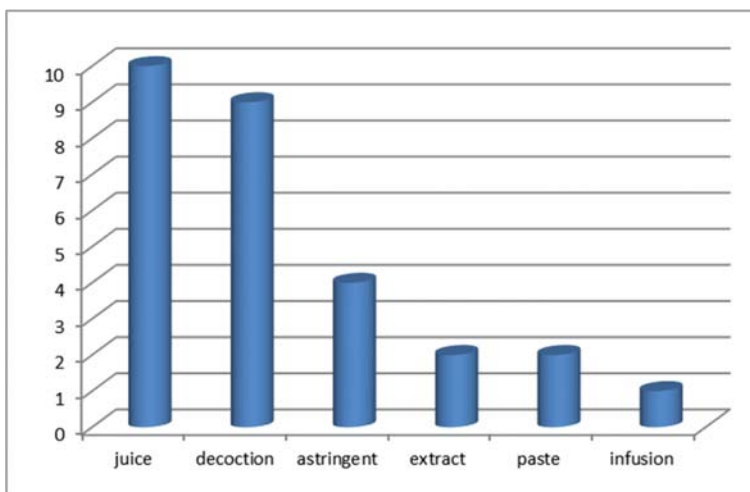
**Showing parts of medicinal plants used for dysentery**



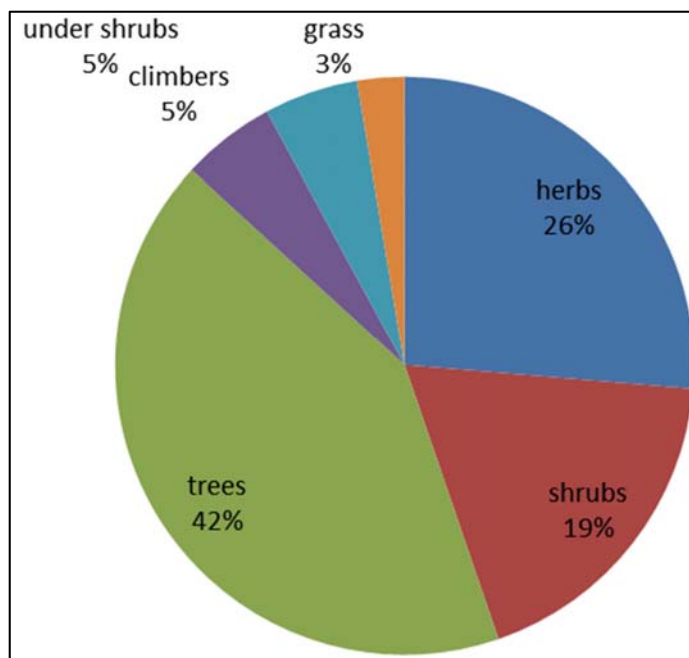
**Showing number of plants in different families**



**Mode of preparation of medicine**



**Habit pattern of plants**



## Ethno medicinal survey of medicinal plants of Tikamgarh district

S. n.	Botanical Name	Local Name	Family Name	habit	Part (S) used	Mode of administration
1	<i>Abutilon indicum</i> L.	Kanghi	Malvaceae	Under shrubs	Bark	Bark extract is given orally to cure dysentery
2	<i>Adhatoda vasica</i> Nees.	Adusa	Acanthaceae	Shrub	Leaf bark	Leaf juice is mixed with bark juice of <i>Syzygium cumini</i> is very effective for dysentery
3	<i>Aegle marmelos</i> Linn.	Bel	Rutaceae	Tree	Roots leaves and fruits	The roots are astringent and febrifuse useful in dysentery. raw fruit pulp is burnt on fire and then make powder is very effective for dysentery
4	<i>Ampelocissus latifolia</i> Roxb.	Jangliangoor	Vitaceae	Climber	Root	Decoction of root is used to cure dysentery.
5	<i>Anisomeles indica</i> L.	Ban tulusi	Lamiaceae	Herb	Whole plant	Decoction of whole plant is used for dysentery
6	<i>Azadirachta indica</i> Juss.	Neem	Meliaceae	Tree	Leaves	Leaves extract is given a day for three days to cure dysentery
7	<i>Bauhinia racemosa</i> Lamk.	Maholi	Caesalpiniaceae	Tree	Stem bark	Stem bark used in dysentery.
8	<i>Bauhinia variegata</i>	Kachnar	Caesalpiniaceae	Tree	Bark	Bark juice is taken thrice a day for week to cure dysentery.
9	<i>Carica papaya</i> L.	Papita	Caricaceae	Shrub	Latex	Milky latex is used to treat dysentery.
10	<i>Cyperus rotundus</i> L.	Nagar moth	Cyperaceae	Grass	Tuber	Tuber infusion mixed with sugar/salt is given orally in dysentery.
11	<i>Dalbergia sissoo</i> Roxb.	Shisham	Fabaceae	Tree	Leaves root	Root are astringent which is also used in dysentery. bark and leaf juice applied for dysentery. leaf juice mixed with honey are applied in dysentery.
12	<i>Eclipta alba</i> Linn.	Bhrinraj	Asteraceae	Herb	Stem bark	Decoction of stem bark is applied to bloody dysentery.
13	<i>Emblia officinalis</i> L.	Amla	Euphorbiaceae	Tree	Bark	Bark juice is applied for dysentery.
14	<i>Eugenia heyneanum</i> Wall.	Kath jamun	Myrtaceae	Shrub	Bark	Bark paste is used for dysentery.
15	<i>Euphorbia hirta</i> Linn.	Dudhi	Euphorbiaceae	Herb	Whole plant	Plant juice are very effective for dysentery.
16	<i>Euphorbia thymifolia</i> L.	Laldudhi	Euphorbiaceae	Herb	Whole plant	Decoction of plant is given twice a day to cure dysentery
17	<i>Ficus benghalensis</i>	Bargad	Moraceae	Tree	Bark bud	Bark is astringent which specific cure for dysentery is. Bud is useful for stopping dysentery.
18	<i>Holarrhena pubescens</i> Wall.	Chirol	Apocynaceae	Shrub	Bark	Decoction of bark is used in the treatment of dysentery.
19	<i>Jatropha curcas</i> L.	Jangliarandi	Euphorbiaceae	Shrub	Seed	Seeds are very effective for dysentery.
20	<i>Lagenaria siceraria</i>	Loki	Cucurbitaceae	Climber	Fruit	Fruit juice is given orally in dysentery.
21	<i>Limonia acidissima</i> L.	Kaitha	Rutaceae	Tree	Fruit	Fruit pulp is given in dysentery.
22	<i>Mangifera indica</i> Linn.	Aam	Anacardiaceae	Tree	Fruit	Unripe fruit boiled given with rice and curd given for dysentery.
23	<i>Mentha picta</i> Linn.	Pudina	Lamiaceae	Herb	Leaf	Leaf juice are effective for bloody dysentery.
24	<i>Moringa oleifera</i> Lamk.	Munga	Moringaceae	Tree	Leaves	Leaf paste is given twice daily for 3 to 5 days to cattle for quick relief from dysentery.
25	<i>Musa paradisiaca</i> Linn.	Kella	Musaceae	Herb	Fruit	Unripe fruit are roasted which is applied for dysentery.
26	<i>Nymphaea nouchali</i> Burm.f	Kamal	Nymphaeaceae	Herb	Rhizome	Rhizome is used to cure dysentery.
27	<i>Ocimum sanctum</i> Linn	Tulsi	Lamiaceae	Herb	Whole plant	Decoction of whole plant is applied for dysentery.
28	<i>Oxalis corniculata</i> Linn.	Amrul	Oxalidaceae	Herb	whole plant	Decoction of leaf is used in dysentery.
29	<i>Ricinus communis</i> Linn.	Arand	Euphorbiaceae	Tree	Root	Root juice are applied to cure dysentery.
30	<i>Shorea robusta</i> Roxb.	Sal	Dipterocarpaceae	Tree	Resin	Gum mixed with curd is given in dysentery.
31	<i>Sida acuta</i> Burm. F.	Mahabala	Malvaceae	Under shrub	Whole plant	Whole plant juice is used to cure dysentery.
32	<i>Solanum nigrum</i> L.	Makoi	Solanaceae	Herb	Whole plant	Plant juice is given orally in dysentery.
33	<i>Syzygium cumini</i> L.	Jamun	Myrtaceae	Tree	Bark, seed	Seed powder are used to treat dysentery. decoction of bark is used for dysentery.
34	<i>Tamarindus indica</i> L.	Imli	Caesalpiniaceae	Tree	Fruit	The pulp of fruit is used to treat dysentery.
35	<i>Terminalia bellirica</i> Roxb.	Bahera	Combretaceae	Tree	Fruit, seed	Mature and dry fruit are used in dysentery. seeds are household remedy for dysentery.
36	<i>Vitex negundo</i> Linn.	Nigundi /indrani	Verbenaceae	Shrub	Root	Decoction of root are used for dysentery.
37	<i>Ziziphus oenoplia</i>	Jharberi	Rhamnaceae	Shrub	Fruit	Ripe fruit are eaten in dysentery
38	<i>Ziziphus mauritiana</i> Lam.	Berberi	Rhamnaceae	Tree	Bark	Bark is astringent which is used for dysentery.

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