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STUDY OF TRADITIONAL KNOWLEDGE OF MEDICINAL PLANTS AND THEIR USE BY TRIBAL PEOPLE OF SITAPUR AND BAGICHA BLOCK IN CHHATTISGARH, INDIA

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Abstract—The study was conducted for Traditional Knowledge of Medicinal Plants, Part use and their Uses in Tribal Region of Sitapur and Bagicha Block in Chhattisgarh. Korwa tribe knows total 41 Medicinal Plant, Similarly Gond Tribe knows 34 Medicinal plants, Uraon tribe knows 31 Medicinal plant Species and Nagvanshi Tribe knows 28 Medicinal Plant species. As per the knowledge of respondents about Medicinal tree species Arjun(*Terminalia arjuna*), Baheda(*Terminalia bellirica*), Harra (*Terminalia chebula*), Karanj (*Pongamia pinnata*), Neem (*Azadiracta indica*), Char(*Buchanania lanzan*) Mahua (*Madhuca indica*) etc. are mostly using as medicinal purpose followed by Bhuineem (*Andrographis paniculata*), Chirchita (*Achyranthes aspera*) Bariyari (*Sida acuta*), Satavar (*Asparagus racemosus*), Sher datum(*Smilax macrophylla*), Genda (*Tegetes erecta*), Hadsanghar (*Nyctanthes arborescens*), Hathhjod (*Cissus quadrangularis*) and Kewach (*Mucuna pruriens*) etc. are shrub and climber Species use by the tribal people. Therefore, it is the needful aspect of conserving these biological resources for a sustainable ecosystem. This information given by tribal's shows the very diverse nature of Medicinal plants they use in healing purpose & living standard upliftment.

Keywords— Tribe, Traditional, Medicinal plants, Ailment, Knowledge

I. INTRODUCTION

Medicinal plants play an important role in supporting the health care system in India. This diverse composition with knowledge about their medicinal properties is very essential for the survival of tribes, still live with much dependence on plants. According to WHO world health organization planning, 80% of the population in developing countries relies on traditional medicine (Bhandary and Chandrashekhar, 2002). In India more than 75% population belongs to rural areas and deepened to the natural resources (Anonymous, 1991). India is one of the rich and diverse centers of different medicinal plants. Around 45,000 plant species found in India nearly 15,000 plant species are used for their specific

medicinal value that shows the remarkable diverse nature of plant species and Chhattisgarh having rich traditional knowledge on medicinal plants Around 2500 species of plants are used as a source of Herbal medicine (Pei, 2001). Medicinal plants utilization in the treatment of different diseases studied by Ambasta (1986).

Documentation is a needful aspect of sustainable utilization and conservation of medicinal plants (Patel, 2012). It is estimated that 40% of the world population depends directly on plant-based medicine for their health care (WHO, 2003). Chhattisgarh is rich in forest resources about 44% area of the state is under forest cover. Tribal region of Bagicha Block, Jashpur district and Sitapur block Surguja District are such areas in Chhattisgarh, where tribal people live with nature. The study was conducted to document the Medicinal Plants with their knowledge uses among the different tribal communities of Surguja and Jashpur District of Chhattisgarh Arjun(*Terminalia arjuna*), Baheda(*Terminalia bellirica*), Harra (*Terminalia chebula*), Karanj (*Pongamia pinnata*), Neem (*Azadiracta indica*), Char(*Buchanania lanzan*) and Mahua (*Madhuca indica*) etc. are major woody tree species found in a large number and Bhuineem (*Andrographis paniculata*), Chirchita (*Achyranthes aspera*), Nirgundi(*Vitex negundo*), Bariyari (*Sida acuta*), Satavar (*Asparagus racemosus*), Bantulsi(*Eranthemum pullchellum*), Sher datum(*Smilax macrophylla*), Genda(*Tegetes erecta*), Hadsanghar (*Nyctanthes arborescens*), Hathhjod (*Cissus quadrangularis*) and Kewach (*Mucuna pruriens*) etc are shrub and Climber species found in the study site. Among these woody tree species, shrub and climber plants are presented in diversity. They know the importance of plants and forests, hence practicing sustainable use of plant resources. This study was conducted to document the medicinal plants with their knowledge uses among the different tribal communities of Tribal region of Bagicha Block, Jashpur district and Sitapur Block in Surguja District of Chhattisgarh.

STUDY AREA:

Sitapur and Bagicha Blocks are hilly region dense Forest area in Surguja and Jashpur District in the Indian State of Chhattisgarh. Sitapur is 54 km far away from District



headquarter located in Ambikapur Raigarh National Highway NH- 43 and Bagicha Block is 90 km far away from District headquarter Jashpur located in Jashpur - Kansabel - Batouli Ambikapur Road.

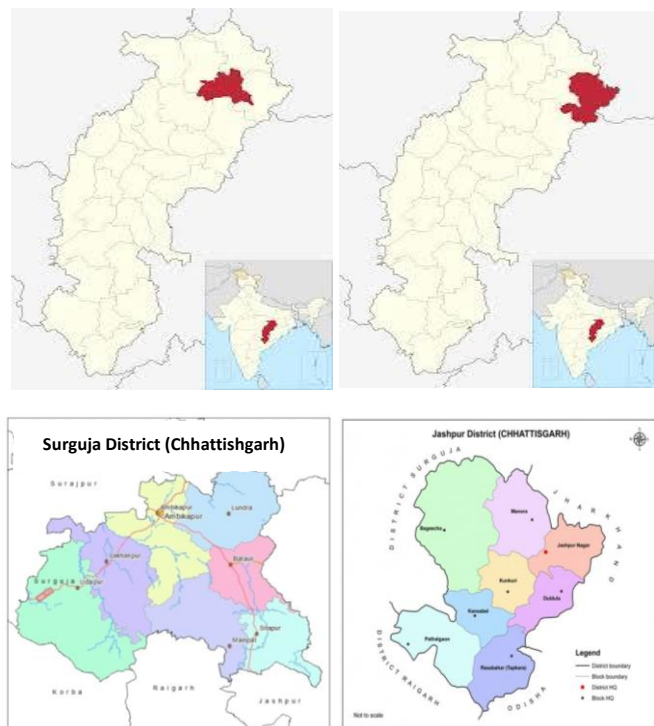


Fig.: 01 Maps of Study site

II. MATERIALS AND METHODS

The study was conducted during 2018-19 in Sitapur and Bagicha Block in Chhattisgarh State. The study area plateau covering in Bagicha Block Jashpur District and Sitapur Block Surguja District Forest. Which is about 1200 m above sea level and is covered with the dense forest. The District was selected purposively, because Surguja and Jashpur district is mostly dominated by the Tribal's people and maximum area covered by forest. Here people use Medicinal Plants as Traditional and Indigenous Knowledge. Two Blocks Sitapur and Bagicha from Surguja and Jasapur District and two- three villages from each block were selected at randomly.

Two Tribal peoples who are different community groups (Korva, Gond, Oraon and Nagvanshi) from each village were taken randomly, thus a total of forty eight Tribal people as respondent were included in the study sample. Key informants were identified after preliminary discussion with the people. Medicinal plants data was collected by interviewing key informants of the community using a questionnaire having questions related to socio-profile viz., name of village, name of informants, age of informants, cast, education and questions about medicinal plants viz. local name, habit, use of plant, part used etc. The species were observed and identified with the help of local of villages and tribal people. The confirmation of the species is carried out with the help of flora of Chhattisgarh and Madhya Pradesh and other related literature (Hooker's, 1875; Sharma, 2003; De, 2005; Pullaiah, 2006; Trivedi, 2006). Finally, plants were documented by following their botanical name, habits, local name, parts use and uses of the individual plants.

III. RESULTS AND DISCUSSION

During the survey the Knowledge of Tribal people about Medicinal Plants is to the local flora of a total of 52 Species are recorded by the study area. Indigenous and Traditional knowledge and their Medicinal usage comprising different Medicinal Plant Species. The details about the usage of medicinal plants by Tribes with their Ailment, Common name of plant Botanical name, parts use of plant are given below in Tables 1, 2, 3 and 4. As per the assessment Korva Tribe used maximum number (41) of floral species as medicinal purpose followed by Gond tribe (34), Oraon Tribe (31) and minimum Nagvanshi Tribe (28). Similar study Painkra et al., (2015) as per assessment Kanwar Tribe used maximum number (26) of floral species as medicinal purpose followed by Oraon tribe (19), Korva Tribe (17) and Gond tribe (14). Apart from health care, medicinal plants is mainly the alternate income generating source of underprivileged communities (Myers, 1991; Lacuna-Richman, 2002). Similar study Choudhary et al. (2011) Haldi and Bhui-neem is mostly used by these four tribes as medicinal purpose. has worked on ethno botany focussing on four tribal communities i.e., Bhil, Bhilala, Gond and Korku and reported a total of 29 species were used by them for remedies in M.P. A total of 89 species and 56 families were reported by Thakur et al. (2013)

Table 1. Detail about usage of medicinal plants by Korva Tribe.

S.N	Ailment	Common name of plant	Botanical name	Useful parts of plant
1.	Body ache	Bis tendu	<i>Diospyros ontana</i>	Root bark
2.	Chest pain	Kahua	<i>Terminalia arjuna</i>	Bark
3.	Cough and Cold	Pilikateri	<i>Argemone exicana</i>	Flower
4.		Baheda	<i>Terminalia bellirica</i>	Fruit, Bark
5.	Diarrhea	Saja	<i>Terminalia tomentosa</i>	Bark
6.	Cuts & wounds	Ghritkumari	<i>Aloe vera</i>	Pulp
7.		Bhelawa	<i>Semicarpus nacdardium</i>	Bark
8.	Diabetes	Dhawra	<i>Anogeissus latifolia</i>	Bark
9.		Jamun	<i>Syzygium cumini</i>	Seeds
10.	Dysentery	Bhuiamla	<i>Phyllanthus niruri</i>	Whole plant
11.		Kudai	<i>Holarrhaena antidysenterica</i>	Stem bark



12.		Aithi	<i>Helicteres isora</i>	Seeds
13.		Amla	<i>Emblica officinalis</i>	Fruits
14.	Epilepsy	Beal	<i>Aegle marmelos</i>	Fruit
15.		Brahmi	<i>Bacopa monnieri</i>	Leaves
16.		Satawar	<i>Asparagus racemosus</i>	Roots
17.	Eczema	Bantulsi	<i>Eranthemum pullchellum</i>	Leaves
18.		Bhuileem	<i>Andragrophis paniculata</i>	Leaves
19.	Heart diseases	Arjun	<i>Terminalia arjuna</i>	Bark
20.	Fracture	Harsingar	<i>Nyctanthes arbortristis</i>	Leaves and fruits
21.		Hadjod	<i>Cissus quadrangularis</i>	Stem
22.	Giddiness	Tulsi	<i>Ocimum basilicum</i>	Entire plant
23.	Head-ache	Keokand	<i>Costus speciosus</i>	Rhizomes
24.		Genda	<i>Tegetes erecta</i>	Leaves
25.	Hydrocel	Bhelava	<i>Semicarpus anacardium</i>	Seeds
26.		Arandi	<i>Ricinus communis</i>	Leaves
27.	Irregular Menses	Dhawai	<i>Woodfordia fruticosa</i>	Dhawai Corolla
28.		Gudahal	<i>Hibiscus rosa-sinensis</i>	Flower
29.	Itching	Chitrak	<i>Plumbago zeylanica</i>	Entire plants Chitrak
30.		Nirgundi	<i>Vitex negundo</i>	Entire plants
31.	Jaundice	Bhui Amla	<i>Phyllanthus nirurai</i>	Whole plant
32.		Chirchita	<i>Achyranthes aspera</i>	Roots
33.		Char	<i>Buchanania lanzan</i>	Bark
34.		Kahava	<i>Terminalia arjuna</i>	Bark
35.		Mahua	<i>Madhuca latifolia</i>	Bark and seed
36.	Joint Pain	Shatavari	<i>Asparagus racemosus</i>	Roots
37.		Nirgundi	<i>Vitex negundo</i>	Root, stem and leaves
38.		Karanji	<i>Pongamia pinnata</i>	Root, stem and leaves
39.	Kidney Stone	Kulthi	<i>Mycrotyloma uniflorum</i>	Seeds
40.	Leucorrhoea	Palas	<i>Butea monosperma</i>	Flowers
41.	Malaria	Bhuileem	<i>Andragrophis paniculata</i>	Whole plant
42.		Neem	<i>Azadiracta indica</i>	Bark
43.	Milk secretion	Satawri	<i>Asparagus racemosus</i>	Fibre
44.		Dudhi	<i>Euphorbia hirta</i>	Whole plant
45.	Snake bite	Bhuileem	<i>Andragrophis paniculata</i>	Entire plants
46.		Saja	<i>Terminalia tomentosa</i>	Bark
47.		Baryari	<i>Sida acuta</i>	Leaf
48.	Tooth ache and Pyorrhea	Ramdaton	<i>Smilax macrophylla</i>	Whole plant

Table 2: Detail about usage of medicinal plants by Gond Tribe.

S.N	Ailment	Common name of plant	Botanical name	Useful parts of plant
01.	Normal Pain	Rohina	<i>Soymida febrifuge</i>	Bark
02.	Fever	Imli	<i>Tamaridus indica</i>	Root
03.		Ber	<i>Zizyphus numularia</i>	Bark
04.	Body ache	Bis tendu	<i>Diospyros ontana</i>	Root bark
05.	Chest pain	Kahua	<i>Terminalia arjuna</i>	Bark
06.	Cough and Cold	Pilikateri	<i>Argemone exicana</i>	Flower
07.		Baheda	<i>Terminalia bellirica</i>	Fruit, Bark
08.		Harra	<i>Terminalia chebula</i>	Fruit
09.		Saja	<i>Terminalia tomentosa</i>	Bark
10.	Cuts & wounds	Ghritkumari	<i>Aloe vera</i>	Pulp
11.	Ear ache	Bhelawa	<i>Semicarpus nacardium</i>	Bark
12.		Kewanch	<i>Mucuna pruriens</i>	Leaves
13.		Harra	<i>Terminalia chebula</i>	Fruits
14.	Eye problems	Brahmi	<i>Bacopa monnieri</i>	Leaves
15.	Eczema	Satawar	<i>Asparagus racemosus</i>	Roots
16.	Heart diseases	Choulai bhaji	<i>Amaranthus viridis</i>	Leaves
17.	Fracture	Ghritkumari	<i>Aloe vera</i>	Leaf pulp
18.		Bantulsi	<i>Eranthemum pullchellum</i>	Leaves
19.		Bhuileem	<i>Andragrophis paniculata</i>	Leaves
20.	Giddiness	Arjun	<i>Terminalia arjuna</i>	Bark
21.	Head-ache	Harsingar	<i>Nyctanthes arbortristis</i>	Leaves and fruits
22.		Hadjod	<i>Cissus quadrangularis</i>	Stem
23.	Hydrocel	Tulsi	<i>Ocimum basilicum</i>	Entire plant
24.		Keokand	<i>Costus speciosus</i>	Rhizomes
25.		Genda	<i>Tegetes erecta</i>	Leaves
26.	Irregular Menses	Dhawai	<i>Woodfordia fruticosa</i>	Dhawai Corolla



27.	Itching	Gudahal	<i>Hibiscus rosa-sinensis</i>	Flower
28.		Chitrak	<i>Plumbago zeylanica</i>	Entire plants
29.	Joint Pain	Nirgundi	<i>Vitex negundo</i>	Entire plants
30.	Kidney Stone	Shatavari	<i>Asparagus racemosus</i>	Roots
31.	Leucorrhoea	Nirgundi	<i>Vitex negundo</i>	Root, stem and leaves
32.	Malaria	Karanji	<i>Pongamia pinnata</i>	Root, stem and leaves
33.		Kulthi	<i>Mycrotyloma uniflorum</i>	Seeds
34.		Palas	<i>Butea monosperma</i>	Flowers
35.		Bhuileem	<i>Andrographis paniculata</i>	Whole plant
36.	Milk secretion	Neem	<i>Azadiracta indica</i>	Bark
37.		Satawri	<i>Asparagus racemosus</i>	Fibre
38.	Stomach Pain	Dudhi	<i>Euphorbia hirta</i>	Whole plant
39.	Swelling	Bargad	<i>Ficus religiosa</i>	Leaves and fruits
40.		Sher datun	<i>Smilax macrophylla</i>	Root
41.		Nirgundi	<i>Vitex negundo</i>	Entire plants
42.		Harra	<i>Terminalia chebula</i>	Fruit
43.		Baryari	<i>Sida acuta</i>	Leaf
44.	Snake bite	Bhuileem	<i>Andrographis paniculata</i>	Entire plants
45.		Saja	<i>Terminalia tomentosa</i>	Bark

Table 3. Details about usage of Medicinal Plants by Oraon Tribe

S.N	Ailment	Common name of plant	Botanical name	Useful parts of plant
1.	Fever	Neem	<i>Azadiracta indica</i>	Leaf
2.	Chest pain	Kahua	<i>Terminalia arjuna</i>	Bark
3.	Cough and Cold	Baheda	<i>Terminalia bellirica</i>	Fruit, Bark
4.		Harra	<i>Terminalia chebula</i>	Fruit
5.	Cuts & wounds	Bhelawa	<i>Semicarpus nocardium</i>	Bark
6.		Kewanch	<i>Mucuna pruriens</i>	Leaves
7.	Diabetes	Jamun	<i>Syzygium cumini</i>	Seeds
8.		Dumar	<i>Ficus glomerata</i>	Fruit and bark
9.	Delivery problem	Bach	<i>Acorus calamus</i>	Fresh milk
10.		Chirchita	<i>Achyranthes aspera</i>	Whole plant
11.	Ear ache	Bad	<i>Ficus bengolensis</i>	Leaves
12.		Dhatura	<i>Datura alba</i>	Seeds
13.	Heart diseases	Arjun	<i>Terminalia arjuna</i>	Bark
14.	Fracture	Harsingar	<i>Nyctanthes arbortristis</i>	Leaves and fruits
15.		Hadjod	<i>Cissus quadrangularis</i>	Stem
16.	Head-ache	Genda	<i>Tegetes erecta</i>	Leaves
17.	Irregular Menses	Dhawai	<i>Woodfordia fruticosa</i>	Dhawai Corolla
18.		Gudahal	<i>Hibiscus rosa-sinensis</i>	Flower
19.	Itching	Chitrak	<i>Plumbago zeylanica</i>	Entire plants
20.		Nirgundi	<i>Vitex negundo</i>	Entire plants
21.		Karanj	<i>Pongamia pinnata</i>	Seed oil
22.	Jaundice	Chirchita	<i>Achyranthes aspera</i>	Roots
23.		Mehandi	<i>Lawsonia alba</i>	Leaves
24.		Char	<i>Buchanania lanzan</i>	Bark
25.		Kahava	<i>Terminalia arjuna</i>	Bark
26.		Mahua	<i>Madhuca latifolia</i>	Bark and seed
27.	Joint Pain	Shatavari	<i>Asparagus racemosus</i>	Roots
28.		Nirgundi	<i>Vitex negundo</i>	Root, stem and leaves
29.		Karanj	<i>Pongamia pinnata</i>	Root, stem and leaves
30.	Kidney Stone	Kulthi	<i>Mycrotyloma uniflorum</i>	Seeds
31.	Malaria	Bhuileem	<i>Andrographis paniculata</i>	Whole plant
32.		Neem	<i>Azadiracta indica</i>	Bark
33.	Milk secretion	Satavari	<i>Asparagus racemosus</i>	Fibre
34.		Dudhi	<i>Euphorbia hirta</i>	Whole plant
35.	Stomach Pain	Peepal	<i>Ficus religiosa</i>	Leaves and fruits
36.		Sher datun	<i>Smilax macrophylla</i>	Root
37.	Swelling	Nirgundi	<i>Vitex negundo</i>	Entire plants
38.		Baryari	<i>Sida acuta</i>	Leaf

Table 4: Details about usage of Medicinal Plants by Nagvanshi Tribe

S.N	Ailment	Common name of plant	Botanical name	Useful parts of plant
1.	Pain	Rohina	<i>Soyimida febrifuge</i>	Bark
2.	Fever	Imli	<i>Tamaridus indica</i>	Root
3.	Body ache	Bis tendu	<i>Diospyros ontana</i>	Root bark



4.	Chest pain	Kahua	<i>Terminalia arjuna</i>	Bark
5.	Cough and Cold	Baheda	<i>Terminalia bellirica</i>	Fruit, Bark
6.		Harra	<i>Terminalia chebula</i>	Fruit
7.	Diarrhea	Saja	<i>Terminalia tomentosa</i>	Bark
8.	Cuts & wounds	Ghritkumari	<i>Aloe vera</i>	Pulp
9.		Kewanch	<i>Mucuna pruriens</i>	Leaves
10.	Delivery problem	Bach	<i>Acorus calamus</i>	Fresh milk
11.		Chirchita	<i>Achyranthes aspera</i>	Whole plant
12.	Dysentery	Bhuiamla	<i>Phyllanthus niruri</i>	Whole plant
13.	Ear ache	Harra	<i>Terminalia chebula</i>	Fruits
14.	Epilepsy	Beal	<i>Aegle marmelos</i>	Fruit
15.		Satawar	<i>Asparagus racemosus</i>	Roots
16.	Eye problems	Choulai bhaji	<i>Amaranthus viridis</i>	Leaves
17.		Ghritkumari	<i>Aloe vera</i>	Leaf pulp
18.	Eczema	Bantulsi	<i>Eranthemum pullchellum</i>	Leaves
19.	Heart diseases	Arjun	<i>Terminalia arjuna</i>	Bark
20.	Fracture	Harsingar	<i>Nyctanthes arbortristis</i>	Leaves and fruits
21.		Hadjod	<i>Cissus quadrangularis</i>	Stem
22.	Giddiness	Tulsi	<i>Ocimum basilicum</i>	Entire plant
23.	Head-ache	Keokand	<i>Costus speciosus</i>	Rhizomes
24.		Genda	<i>Tegetes erecta</i>	Leaves
25.	Irregular Menses	Dhawai	<i>Woodfordia fruticosa</i>	Dhawai Corolla
26.		Gudahal	<i>Hibiscus rosa-sinensis</i>	Flower
27.	Joint Pain	Satavari	<i>Asparagus racemosus</i>	Roots
28.		Nirgundi	<i>Vitex negundo</i>	Root, stem and leaves
29.	Milk secretion	Satavari	<i>Asparagus racemosus</i>	Fibre
30.	Tooth ache and Pyorrhea	Ramdaton	<i>Smilax macrophylla</i>	Whole plant
31.	Snake bite	Bhalu Kakai	<i>Alysicarpus monilifer</i>	Root
32.	Diarrhea	Bans	<i>Bambusa bambos</i>	Leaf

IV. CONCLUSION

The information through respondents (Tribals) showed a very diverse nature of the medicinal plant and their usage in healing purposes with socio-economic/ living standard upliftment. Thus it is expected that this investigation will be helpful to conserve heritable knowledge in the field of herbal treatment and general uses of plants in village ecosystem and the conservation of these resources along with domestication, multiplication, sustainable harvesting is required for future generations and for ecological wellbeing.

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