

Ethnomedicinal Plants used by the Tribals of Similipal Bioreserve, Orissa, India: A Pilot Study

Kambaska Kumar Behera

Department of Agriculture Biotechnology, Orissa University of Agriculture and Technology (OUAT), Bhubaneswar, Orissa, India, 751003.

Email: kambaska@yahoo.co.in

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ABSTRACT

Herbal medicine has been widely practiced throughout the world since ancient times. These medicines are safe and environmentally friendly. According to WHO about 80% of the world's population relies on traditional medicine for their primary health care. India, being one of the world's 12 mega biodiversity countries, enjoys export of herbal raw material worth U.S. \$100-114 million per year approximately. Currently the Government of India, realizing the value of the country's vast range of medicinal plants, has embarked on a mission of documenting the traditional knowledge about medicinal plants and herbs. This investigation, in a small way, takes up the enumeration of plants with potential medicinal value, which are used by the tribal groups, residing in and around Similipal Bioreserve of Mayurbhanj, Orissa, India. This report elucidates a rich and unique profile of phyto-diversity of the area surveyed, with 89 species belongs to 52 families and 79 genera of medicinal plants.

Key words: Traditional knowledge, Herbal medicines, Phytodiversity.

INTRODUCTION

Throughout the world, plants have been in continuous use in one way or the other for the treatment of various ailments. In India, the sacred Vedas, which date back between 3500 B.C. and 800 B.C., give many references of medicinal plants. One of the remotest works in traditional herbal medicine is "Virikshayurveda," compiled even before the beginning of Christian era and formed the basis of medicinal studies in ancient India. The Rig Veda, dating between 3500 B.C. to 1800 B.C., seems to be the earliest record available on medicinal plants. Herbs seem to be very important component of medicine in other cultures too; Greek, African and Chinese medicines., etc. Nearly 80% of the world population depends upon traditional system of health care. Allopathic drugs have brought a revolution throughout the world but the plant base medicines have its own unique status.(Behera,K.K,et al 2006) Surveys had revealed that 50% of the top prescription drugs in the USA are based on natural products and the raw materials are locked up in the tropical world –interiors of Africa, Asia and Latin America. The local uses of plants as a cure are common particularly in those areas, which have little or no access to modern health services, such as the innumerable tribal villages

and hamlets in India. (Behera,K.K,2003) The indigenous traditional knowledge of medicinal plants of various ethnic communities, where it has been transmitted orally for centuries is fast disappearing from the face of the earth due to the advent of modern technology and transformation of traditional culture. The collection of information about natural flora, classification, management and use of plants by the people holds importance among the ethnobotanists. The local people and researchers face the challenging task of not only documenting knowledge on plants, but also applying the results of their studies to biodiversity conservation and community developments, with a deep concern and reverence for the vast diversity of flora that our country enjoys, and with sense of realization about the invaluable therapeutic properties of this phytodiversity, the current research is undertaken. This work concentrates on potential ethnomedicinal value of plants and herbs commonly used by the tribals residing in and around Similipal bioreserve of the area surveyed. The study area concentrates in and around the deep forest pockets of tribal villages which comes under Similipal bioreserve located in Mayurbhanj districts, Orissa India. The area lies between 20° 17' to 22° 34' North latitude and 85° 40' to 87° 10' East longitude and at an altitude of 40 meters to 1166 meters above sea level and the average temperatures range between minimum 2°C in winter to a maximum of 48°C in summer having average rain fall 22000 mms. Similipal bioreserve is a part of the biotic province of Chhotanagpur Plateau. The Reserve derives its name from the magnificent Simul (Silk Cotton Tree). (Faulks, P. J.,1958). It has been aptly described as Salmali Saila (the hill of Simul) in the poem 'Usha' written by the famous Oriya poet Laureate, Radhanath Ray. The hills, with their numerous peaks and valleys, rise steeply from the plains of Udala in the south and Baripada in the southeast and extend up to Jashipur in the northwest, Bisnoi in the north and Thakurmunda to the west. Similipal is a representative ecosystem under Mahanadian Biogeographic Region. Its floral and faunal composition has some similarities with elements from the Western Ghats and Northeast India.

METHODOLOGY

Following the method of Jain and Goel (1995), the information regarding the usage of medicinal plants available in the local area for treating various ailments and diseases, was collected directly by contacting the elders, herbal doctors and the persons who have knowledge about these medicinal plants in the Similipal bioreserve which is situated in the Mayurbhanj district. Regular visits to the above mentioned places were made from June 2003 to February 2005. (Ford, R. I., 1978). The plant material was collected and carefully handled for identification by authenticated source. Most of the plant materials were preserved by making herbaria and all the voucher specimens were carefully numbered and deposited. The medicinal value of each plant was enumerated in the following pattern: a), b) Family, c) Vernacular Name, d) Parts used and e) Ethnomedicinal uses.

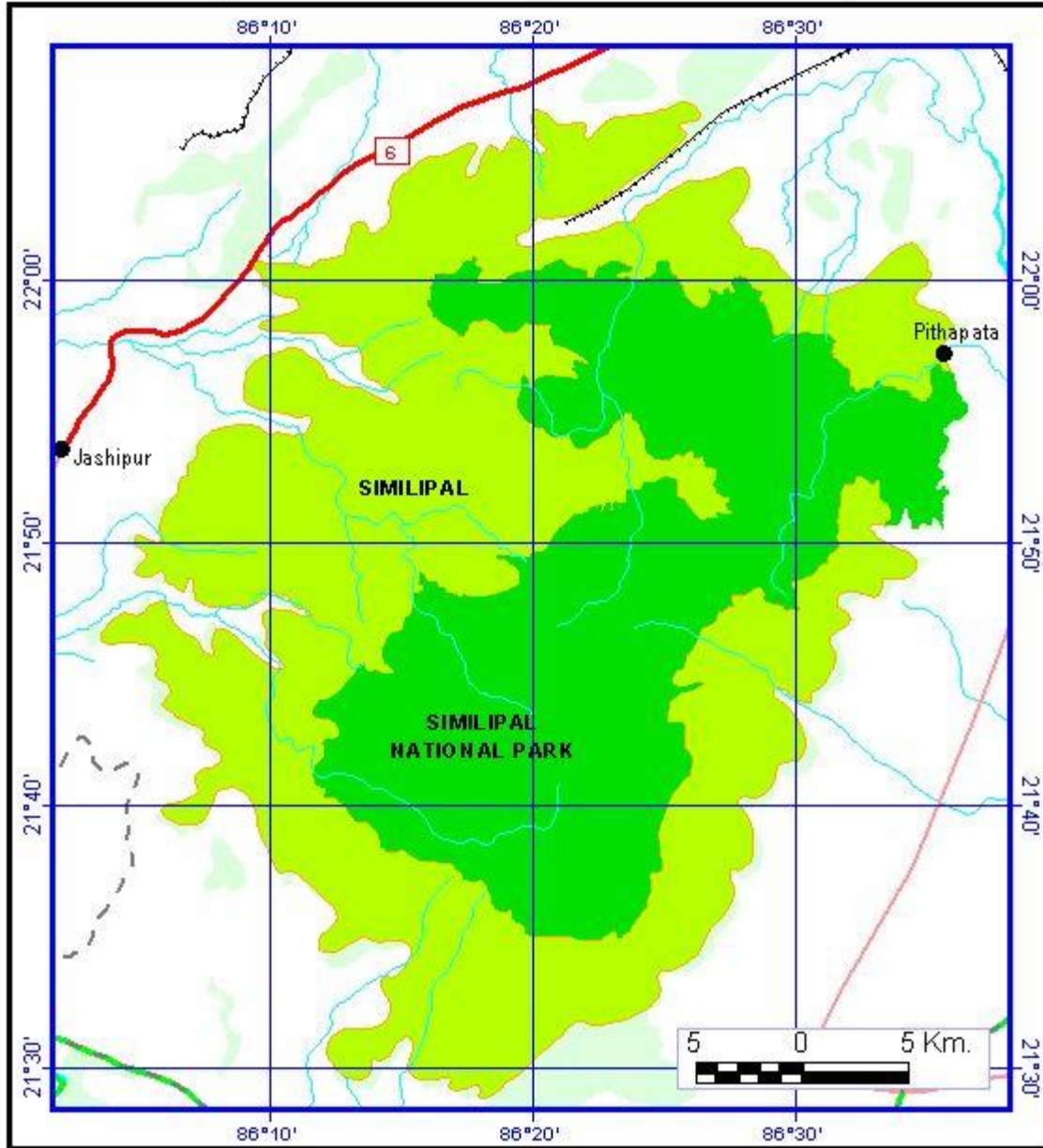
The identification of plants was done using the following references:

1. The Botany of Bihar and Orissa by Haines, H.H. (1921-25).
2. Flora of Orissa, Vol.I-IV by Saxena, H.O. & M. Brahmam. (1994-1996).
3. Some magico-religious beliefs about plants among Adibasis of Orissa Adibasi 12: 8-44 by Jain S.K. (1991).

4. Gandha mardhan Parbat, Orissa - A potential of important indigenous drugs. Bull. Reg. Res. Lab. Jamu 1: 11-16. By Panigrahi, G. (1963).

MAP OF THE STUDY AREA

Similipal Sanctuary & National park



RESULTS

The data on medicinal plants, which was collected from inhabitants in and around Similipal bioserve in the Mayurbhanj district, were pooled and analysed. The investigation revealed the medicinal plants of 89 species and 79 genera belonging to 52 families, which are commonly used for various ailments by various tribes (Sa-Santal, Ba-Bathudi, G-Gonda, Lo-Lodha, Mu-Munda, K-

Kondha,Ko-Kolha,Su-Saunti,O-Oriya,Bh-Bhumija, etc.) of the area surveyed. The enumeration and utilization of these plants are described below.

TABLE 1: ENUMERATION AND UTILIZATION OF PLANTS.

1. *Abrus precatorius* L.

Family with Collection Number – (FABACEAE)/225

Vernacular Name: Kaicho, Kaincho, Lalgunj, Runjo (O, Ba, Bh, Su); Gujjbai, Arakeej, (Sa), Karjani (Ku); kouch, Ked, Ara-kuch (Lo).

Parts Used: White seeds

Ethnomedicinal Uses: White seeds kept in unboiled cow milk for the period of over night and the seed is given to woman in the morning at the end of menstruation cycle for preventing conception. Sarat (Sa); Raikalia (Ba); Gandidhar (Mu).

2. *Acacia catechu* (L.f.)Willd

Family with Collection Number - (MIMOSACEA)/212

Vernacular Name: Khairo, Khairo (O, Ba, Bh, Su); Kehera (Ko) Kanta (Sa)

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste is made with 7 long peppers (*Piper longum*) and then the paste is mixed with paste of 2-3 Tulasi poka (an insect found on Tulasiplant) and is taken thrice a day for three months for the treatment of night blindness (Rat-kana). Sarabasa(Sa); Gohira (Ba); Nandurusahi (Mu).

3. *Ageratum conyzoides* L.

Family with Collection Number - (ASTERACEAE)/202

Vernacular Name: Pokusunga, Bok sunga, Dengsingi, (O, Ba, Bh, Su); Tankamani (Lo); Heren-ba (Mu,Sa)

Parts Used: Leaf

Ethnomedicinal Uses: Boiled leaf paste is applied on skin before bed for the treatment of Khasar (a type of skin disease) Kaptipada (Sa); Jamba bani, (Ba,Go).

4. *Alangium salvifolium* (L.f.)Wang.

Family with Collection Number - (ALANGIACEAE)/205

Vernacular Name: Dhala-ankol, Ankula (O, Ba, Su); Ankolo-Huring, sitabororo (Lo); Dhelakanta (Sa).

Parts Used: Leaf

Ethnomedicinal Uses: Leaf juice (2ml) with common salt (1gm) is applied drop by drop twice for five days on eyelids as a cure of eye diseases like redness of eyes. Raikalia (Sa, Go, Su); Phulgadia (Ba); Gandidhar, (Mu, Ko).

5. *Amaranthus viridis* L.

Family with Collection Number - (AMARANTHACEAE) /310

Vernacular Name: Kanta nautia (O, Ba, Su); Notya-ara (Lo).

Parts Used: Root

Ethnomedicinal Uses: Root paste is applied on boils for suppuration. Kotoria (Lo); Kaptipada (Sa); Chhanua (Ba); Pingu (Su, Bh).

6. *Annona squamosa* L.

Family with Collection Number - (ANNONACEAE)/222

Vernacular Name: Maghua, Ata, (O, Ba, Bh); Boror - daru (Lo); Newa, Mondal (Sa); Nenwa, Mandal (Ko).

Parts Used: Dried root powder

Ethnomedicinal Uses: Dried root powder (5gm) is taken once in morning for five days by women for abortion of 3 to 4 months of pregnancy. Taldiha (K); Debakunda (Ba, Bh); Kundabai (Mu); Marsinga (Ko).

7. *Annona reticulata* L.

Family with Collection Number - (ANNONACEAE) /320

Vernacular Name: Rajamaghua, Ramphala, Barhial, (O, Ba, Bh); Naga-newa, Ramphal (Lo); Mandargam, Gom (Sa).

Parts Used: Seed powder

Ethnomedicinal Uses: mixture of seed powder with black pepper (*Piper nigrum*) (about 3gm) is prescribed for spoiling of pregnancy up to 3-4 months duration. Badajhada (Ko, Ba, Go); Hadarachua (Sa, Bh), Handiphuta.(Mu, K, Ko).

8. *Anthocephalus chinensis* (Lam.) A.Rich.ex Walp.

Family with Collection Number - (RUBIACEAE) /312

Vernacular Name: Kadambo, Kadamba, (O, Ba, Su); Kadam-ba (Lo, Mu); Kadam(Sa), Podam (Ko).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste (3gm) with common salt (1gm) is used as cure for eye inflammation and Juice of leaf (2ml) with common salt (1gm) is taken in empty stomach as a cure for stomach pain. Noto (Lo); Sarat (Ba); Kalmagadia (Mu); Padmapokhari (Ko).

9. *Argemone mexicana* L.

Family with Collection Number - (PAPAVERACEAE)/213

Vernacular Name: Agara, Agora, Kantakusum, Deng bejari, Sarpuni, Udasmari (O, Ba, Bh); Nyadudid (Lo); Bakula Janum (Mu); Sundi satkeu, (Sa).

Parts Used: Seed paste

Ethnomedicinal Uses: Seed paste (3gm) mixed with seed oil of *Madhuca longifolia* (1ml) is applied fifteen days continuously on skin for the cure of eczema. Jambani (Ba, Bh, Go); Raikalia (Ba, Ko, K).

10. *Atylosia scarabaeoides* (L.) Benth.

Family with Collection Number - (FABACEAE)/214

Vernacular Name: Kulthia, Duma hirma, Bana -kulthia (O, Ba); Birhorre (Mu & Sa); Ban -kultha (Lo).

Parts Used: Seed

Ethnomedicinal Uses: Pasty mass of seeds is taken with hot water twice continuously for fifteen days as a cure for tape –worm.. Gandidhar (Mu); Nuasahi (Ba); Podadiha (Sa).

11. *Azadirachta indica* A.Juss.

Family with Collection Number - (MELIACEAE)/316

Vernacular Name: Limba, Neem (O, B, Su, Bh); Nimba-daru (Sa); Bokom-dare (Lo).

Parts used: Leaves

Ethnomedicinal Uses: Aqueous extract of leaves (15ml) is taken once a day in empty stomach continuously one month for treatment of diabetes. Sarabasa (Sa); Kantagadi (Ba); Kaptipada (Mu); Bahubandh (Ko).

12. *Bauhinia variegata* L.

Family with Collection Number - (CAESALPINIACEAE) /335

Vernacular Name: Kanchano, Kachu, Borara, (O, Ba, Bh); Buj, Juruju, Burunga, Singya (Ko); Jantai (Mu); Koch-nar (Lo); Buruju-dar (K).

Parts used: Root bark

Ethnomedicinal Uses: Root bark decoction (15ml) is taken once a day continuously one month in empty stomach for reducing bulkiness of the body. Handiphuta (Sa); Chhanua (Ba, G); Kaliasahi (Ko).

13. *Bambusa stricta* Roxb.

Family with Collection Number - (POACEAE) /355

Vernacular Name: Bada-bans, Salia banso (O, Ba, Bh, Su,); Daki-abel, Bir-mad (Lo); Buru mad (Sa).

Parts used: Internodes white crystal

Ethnomedicinal Uses: Bansa-lochan a white crystal like thing found sometime in internodes (about 10gm) is prescribed for gaining vitality and as blood purifier. Kundabahi (Lo, K); Sarabasa (Sa); Kaptipada (Ba, G).

14. *Boerhavia diffusa* L

Family with Collection Number - (NYCTAGINACEAE) /340

Vernacular Name: Puruni saga (O, Ba); Punarnava (Mu); Ohoic-araka (Sa).

Parts used: Whole plant

Ethnomedicinal Uses: Decoction of plant (15ml) is given once a day in the early morning for fifteen

days for the treatment of Leucorrhoea and dried plant powder is smoked as cigarette once a day for the treatment of asthma. Uthansahi (Sa, Ba, Ko); Kantagadi (Ba); Badajhada (Mu, Go); Kaliasahi (Ko, K).

15. *Borreria articularis* (L. f.) Williams.

Family with Collection Number - (RUBIACEAE)/365

Vernacular Name: Solaganthi, Sanaghar podia, Jibkata(O, Ba, su); Pitu arak (Sa).

Parts Used: Whole plant and Root

Ethnomedicinal Uses: Whole plants are boiled and the vapours are inhaled to get relief from toothache and root paste (15gm) is prescribed to woman for the regulation of excessive menstrual flow. Noto (Lo, Go, Su); Kaptipada (Sa); Jamba- bani, (Ba, Bh).

16. *Borassus flabellifer* L.

Family with Collection Number - (ARECACEAE)/260

Vernacular Name: Tala, Tal, Talo, (O, Ba, Su, Bh); Tar (Sa); Rola-daru (Lo).

Parts Used: Male inflorescence.

Ethnomedicinal Uses: Ash (after burning of male inflorescence) with powder of black peppers (*Piper longum*) & cow milk in the ratio of 2: 1: 1, is prescribed to women as contraceptive. Kotoria (Lo); Sarat (Ba); Gandidhar (Mu).

17. *Bombax ceiba* L.

Family with Collection Number - (BOMBACACEAE)/.231

Vernacular Name: Semulo, Simili, Simal (O, Ba, Bh); Simal-dare, Daldara (Sa, Ko); Edel -daru (Lo)

Parts used: Fleshy roots

Ethnomedicinal Uses: Paste of fleshy roots of young plant (1 gm) mixed with unboiled cow milk (2ml) is taken once a day in the early morning for a week by women to regulate irregular menstruation and flowers paste is apply on boils before bed for ripening purpose. Noto (Lo); Kotoria (Ba); Kaptipada (Sa).

18. *Catharanthus roseus* L.G.Don.

Family with Collection Number - (APOCYNACEAE)/233

Vernacular Name: Sadabihari (O, Ba); Sweat chandi (Sa, Mu).

Parts used- Root

Ethnomedicinal Uses: Root paste is applied twice a day continuously seven days for healing of septic wounds and fresh leaf juice (few drops) mixed with a cup of water and is taken in empty stomach for the treatment of blood dysentery. Handiphuta (Sa); Gandidhar (Mu); Kantagadi (Ba).

19. *Calotropis gigantean* R.Brin Ait.f. Hort.

Family with Collection Number - (ASCLEPIADACEAE)/335

Vernacular Name: Arakha (O, Ba); Patladhudha (Mu, Ko); Parkha (Sa.).

Parts Used: Root

Ethnomedicinal Uses: Decoction of root (3ml) with Paste of *Piper longum* (1gm) is given to women in empty stomach continuously ten days for the treatment of Leucorrhoea. Podadiha (Ba); Kotoria (Sa, Ko).

20. *Capparis zeylanica* L.

Family with Collection Number - (CAPPARACEAE)/237

Vernacular Name: Asadua, Oserwa, Hatinkula, Sabbi (O, Ba); Maru-Janum (Lo); Bagnai (Sa).

Parts Used: Leaf

Ethnomedicinal Uses: Pasty mass of leaf (3gm) mixed with paste of *Piper nigrum* (2gm) applied for slight boiling before bed for the treatment of breast swelling. Jambani (Ko); Jadida (Ba); Salachua (Sa); Goudagan (Mu).

21. *Clerodendrum indicum* (L.) Kntze, Rev. Gen.

Family with Collection Number - (VERBENACEAE)/338

Vernacular Name: Brahmadandi, Brahmuna jhatia, Ketu, Nagri, Bhaunarmal, Pudanargi, (O, Ba) Bamanhatti (Sa) merom ret (Mu).

Parts Used: Dried root powder

Ethnomedicinal Uses: Dried root powder is smoked once a day continuously one month for the treatment of asthma and fresh Leaf paste with long peppers (*Piper longum*) is used in the ratio of 2: twice a day in the early morning & before sleep continuously twenty days as cure for swelling of legs. Sarabasa (Sa); Nuasahi (Ba); Gandidhar (Mu), Kotoria (Lo).

22. *Careya arborea* Roxb.

Family with Collection Number - (BARRINGTONIACEAE)/1239

Vernacular Name: Kumbhi (O, Ba) Himarigacha, Kumbhi-daru (Lo); Kumbre, Asanda (Ko).

Parts Used: Root

Ethnomedicinal Uses: Fresh root paste is taken twice a day after food continuously fifteen days against body pain. Noto (Lo); Sarat (Ba); Kalmagadia (Mu); Padmapokhari (Ko).

23. *Caryota urens* L.

Family with Collection Number: - (ARECACEAE)/404

Vernacular Name: Salpa (O, Ba.); Heka, Mada (Ko); Salpa, Salfa, (Sa & Lo).

Parts Used: Old leaves

Ethnomedicinal Uses: Ash prepared by burning of old leaves (3gm) with honey (2ml) is prescribed for the treatment of tympanitis i.e, inflammation of middle ear. Jambabani (Ba); Kundabai (Lo); Gadiapal (Sa).

24. *Crateva nurvala* Buch.-Ham.

Family with Collection Number - (CAPPARACEAE)/344

Vernacular Name: Barun, Varuna, Pitmaiel (O, Ba); Banena-ba (Sa); Barun daru (Lo).

Parts Used: Stem bark

Ethnomedicinal Uses: Fresh juice of stem bark (3ml) mixed with seed powder of *Piper nigrum* (1gm) is taken by women in the seventh days of menstrual cycle as a contraceptive. Monobhanga (Mu); Nuasahi (Ba).

25. *Curcuma amada* Roxb.

Family with Collection Number - (ZINGIBERACEAE)/364

Vernacular Name: Amad, Ama-haladi (O, Ba); ke-a-sanga (Lo); Ban-haldi (Sa)

Parts used –Whole plant

Ethnomedicinal Uses: Plant paste (3gm) with paste of 7 long peppers (*Piper longum*) (1gm) is used twice for seven days after food for the treatment of piles and decoction of rhizome (3ml) with common salt (2gm) is taken twice for five days against cold and cough. Sarabasa(Sa); Taldiha (Lo); Talia (Ba); Sarbanaghati, (Mu).

26. *Cuscuta reflexa* Roxb.

Family with Collection Number - (CUSCUTACEAE)/364

Vernacular Name: Nirmuli (O, Ba,); Sandura-banda (Sa); Ara-roamr(Mu); Alok-pui (Lo).

Parts used: Whole plant

Ethnomedicinal Uses: Plant paste (2gm) with paste of long pepper (*Piper longum*) (1gm) is applied on the swelling portion of scrotum before sleep for the treatment of Hydrocele. Handiphuta (Sa); Goudagan (Ba); Sarat (Mu).

27. *Desmodium gangeticum* (L) DC.Prod.

Family with Collection Number - (FABACEAE)/275

Vernacular Name: Saloporni, Salpheni, Chokkosondo, Salpani, (O, Ba) chakulia (Lo); Tandibhidi, Ote-rai (Sa)

Parts Used: Root

Ethnomedicinal Uses: Decoction of root (15ml) is taken in empty stomach once for seven days for the treatment of Malaria. Chhanua(Ba); Noto & Kotoria (Lo); Gandidhar (Mu).

28. *Desmodium heterocarpon* (L.) DC. Prod.

Family with Collection Number - (FABACEAE)/277

Vernacular Name: Dongerabuta, Salparni, Krishnapani (O, Ba); Baephol, Balphol (Sa), krishna - pani (Lo).

Parts Used: Aerial Part

Ethnomedicinal Uses: Decoction of plant (4 ml.) mixed with rice bear (*Oryza sativa*) (1 ml.) is taken twice a days as a tonic for fattening of bodies up to two months. Sarabasa (Sa); Ashanabani (Ba); Badajhada (Mu).

29. *Dillenia aurea* Sm.

Family with Collection Number - (DILLE NIACEAE) /136.

Vernacular Name: Rai, (O, Ba); Rai-daru, (Lo); Korkotta (Sa, Ko).

Parts Used: Stem bark

Ethnomedicinal Uses: Extract of stem bark (10ml) is taken once a day for two week in empty stomach for restoration of health after child birth and decoction of leaf with common salt in same ratio is taken once a day for seven days against griping pain. Dangarachua (Sa); Nuasahi (Ba); Gandidhar (Mu).

30. *Dillenia indica* L.

Family with Collection Number - (DILLE NIACEAE). /207

Vernacular Name: Awoo, Rai, Dau, Uvu, Oao, (O, Ba); Chalta (Lo); Korkotta (Sa, Ko).

Parts Used: Leaf paste

Ethnomedicinal Uses: Leaf paste is applied for the treatment of carbuncle once a day before bed, Kotaria (Lo); Nuasahi (Ba); Sarabasa (Sa).

31. *Dillenia pentagyna* Roxb.

Family with Collection Number - (DILLE NIACEAE)/231

Vernacular Name: Rai (OKo, Bh); Aghai(Mu); Sahar, Korkota(Mu).

Parts Used: Stem bark.

Ethnomedicinal Uses: Decoction of stem bark (2ml) mixed with lime water (1ml) is taken twice a day before food for cure of blood dysentery and Midwives (Dai) of ethnic group uses tree gum for delivery purpose. Handiphuta (Sa); Uthanisahi (Ba); Nandurusahi (Ko).

32. *Dioscorea bulbifera* L.

Family with Collection Number - (DIOSCCOREACEAE). /287

Vernacular Name: Jo-sang (Lo); Beng-Sang (Sa, Mu), Khamba-alu (O, Ba,).

Parts Used: Tuber

Ethnomedicinal Uses: Tuber paste (2gm) with paste of keon-kanda (*Costus speciosus*) (1gm) is prescribed as a cure for piles. Gandidhara (Mu); Kundabai (Lo); Dukura.

33. *Diospyros melanoxylon* Roxb..

Family with Collection Number - (EBENACEAE). /290

Vernacular Name: Kendu (O, Ba) Tinil, Tendu, Kendu, (Lo)Tiril (Sa); Duri, During (Ko).

Ethnomedicinal Uses: Mixture of decoction of young leaves (3ml) with unboiled egg (2gm)& rice bran oil (2ml) is prescribed for the treatment of night blindness. Podaastia (Sa); Gandidhar (Mu); Bangi riposhi (Ba).

34. *Elephantopus scaber* L.

Family with Collection Number - (ASTERACEAE)./387.

Vernacular Name: Tutamuli, Tatmuli, Meghuchuria, Mayurchandrica, Mayurchulia, Dastigatcho, Amtuliya Chhota-rasna (O, Ba) Mara-kata-ba (Lo); Madhu-jubi (Mu); Manjurijuti (Sa).

Parts Used: Root

Ethnomedicinal Uses: Root paste (10gm) is taken twice a day after food for a week for the treatment of pain during discharge of urine. Thakurmunda (Mu); Nachimpur (Ba); Kalmagadia (Sa).

35. *Euphorbia nerifolia* auct. non L. Hook.f. in Hook.f.

Family with Collection Number - (EUPHORBIACEAE). /267

Vernacular Name: Siju, Thua (O, Ba), Kanta-mansa (Lo); Ekte (Mu & Sa).

Parts Used: Latex

Ethnomedicinal Uses: Fresh diluted latex is used as purgative and Juice of fermented leaves is used for the treatment of rheumatism. Kotoria (Lo); Jaranata (Sa); Talia (Ba).

36. *Evolvulus nummularis* L.

Family with Collection Number - (CONVOLVULACEAE)./268

Vernacular Name: Bichhamalia, Krishna ankaranti (O, Ba); Jungi-ba, Tandi kode baha (Sa Mu).

Parts Used: Whole plant

Ethnomedicinal Uses: Plant paste (3gm) with Kusum seed oils (*Schleichera oleosa*. is used continuously fifteen days twice a day after food for the treatment of bronchial asthma. Kotoria (Lo); Sarat (Sa); Thakurmunda (Ba).

37. *Ficus hispida* L.f. Suupl.

Family with Collection Number - (MORACEAE)./366.

Vernacular Name: Panidimiri, Demburu, Kharsen, Dimiri, Baidimiri, (O,Ba); Duma (Sa); Kosta (Lo).

Parts Used: Fruit

Ethnomedicinal Uses: Boiled green fruits given to mother as a galactagogue for better milk. Hadarachua (Sa); Kantagadi (Ba); Badajhada (Mu).

38. *Ficus religiosa* L.

Family with Collection Number - (MORACEAE)./369

Vernacular Name: Pipalo, Usto, Aswatta, Jori,(O, Ba, Go); Pipa (Sa); Jitia (Lo); Pippala (Ko).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste (3gm) with lime water (1ml) is prescribed as a cure for swelling of glands in armpit and diluted latex is applied as a cure of skin diseases. Sarabasa (Sa, K); Handiputa (Mu, Ko); Kantagadi (Ba).

39. *Flacourtia indica* (Burm.f.) Merr.

Family with Collection Number - (FLACOURTIACEAE)./167

Vernacular Name: Baicha (O, Ba); Merle -daru, Baichi (Lo); Lakar-kati (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste is applied by rubbing the skin for the treatment of Eczema..Kotoria (Lo, Ko); Sarabasa (Sa); Badajhada (Mu, K).

40. *Gloriosa superba* L.

Family with Collection Number - (LILIACEAE)./199.

Vernacular Name: Nanga-nangalia, Ognisikha, Meheria phulo, Karihari (O, Ba, Su); Bing-ki-chung (Lo); Jagar (Mu); Samansom, Siric- samano (Sa).

Parts Used: Tuber

Ethnomedicinal Uses: Tuber paste (3 gm) with paste of long peppers (*Piper longum*) (1gm) is prescribed once a day for twenty days as a cure for rheumatism. Gandidhara (Mu, Go); Kundabai (Lo); Gadiapal (Sa, K).

41. *Gmelina arborea* Roxb.

Family with Collection Number - (VERBENACEAE)./189.

Vernacular Name: Gambari, Bhodroporni, Kumar, Gambhari (O, Ba) Kasmar-daru (Sa & Lo).

Parts Used: Root bark

Ethnomedicinal Uses: Decoction of root bark is used for washing & healing of septic wounds. Sarabasa (Sa); Nuasahi (Ba); Gandidhar (Mu); Kotoria (Lo); Uthanisahi (Ko).

42. *Helicteres isora* L.

Family with Collection Number - (STERCULIACEAE)./171.

Vernacular Name: Murmuria, Muri-muri, Kurkurbicha, (O, Ba, Su) Atmura; Ratandaru (Lo); Keheli; (Mu); Kurkure (Sa).

Parts Used: Leaf

Ethnomedicinal Uses: Leaf is juice is used as a disinfectant on cut wounds for healing and fruits are boiled on *Pongamia pinnata* oil and used as massage on rheumatic swelling for the treatment of rheumatism. Hadarachua (Sa, K); Monobhanga (Mu, Go); Tangiria (Ko).

43. *Heliotropium indicum* L.

Family with Collection Number - (BORAGINACEAE)./250

Vernacular Name: Hati-sura (Lo); Hatisundha (O, Ba, Su, Go).

Parts Used: Root

Ethnomedicinal Uses: Root paste (3mg) with lime is used by rubbing the infected portion of skin as a cure for ring worms and decoction of root (10ml) with honey (2ml) is taken as vitamin for iron deficiency by woman against anemia during pregnancy period. Sarabanaghati (Ba, Su); Sarabasa (Sa); Hadrachua (Ko); Noto (Lo).

44. *Hemidesmus indicus* (L) R. Br.

Family with Collection Number - (PERIPLOCAEAE). /254

Vernacular Name: Anantamul (O, Ba, Su); Gargerri, Analsing (Sa); Tarjamala (Mu).

Parts Used: Root

Ethnomedicinal Uses: Root paste (about 10gm) is taken in empty stomach continuously seven days for the treatment of leucoderma. Handiphuta, Sagadi (Sa, Ko); Bhaluhuduca (Mu); Kantagadi (Ba, Su).

45. *Hibiscus rosa-sinensis* L.

Family with Collection Number - (MALVACEAE)./346.

Vernacular Name: Parijat, Mondaro, Mandar (O, Ba); Jaba-gacha.(Lo, Mu, Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste (15gm) is given to woman continuously five days for causing abortion and mixture of pasty mass of flower buds (3gm) with rust of iron (2gm) and country liquor (2ml) is taken by women at the days of menstruation as a contraceptive. Kotoria (Lo, Ko); Bhalughudura (Sa, Su); Asanbani (Ba Go).

46. *Holorrhena pubescens* (Buch-Ham.) Wall.

Family with Collection Number - (APOCYANACEAE)./386

Vernacular Name: Kureni (O, Ba, Go, Su); Kurchi (Sa); Patadali (Mu, Ko).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark infusion with honey in the ratio of 3: is taken once a day in empty stomach for cure of dysentery. Sarabasa (Sa); Kantagadi (Ba); Noto (Lo); Chuniposhi (Ko).

47. *Justicia adhatoda* L.

Family with Collection Number - (ACANTHACEAE)./249

Vernacular Name: Vasak, Basango, Basak (O, Ba, Go, Su); Lupuna-ara, toroe-ara (Lo).

Parts Used: Root

Ethnomedicinal Uses: 5 pieces of root paste with 2-3 pieces of roots of *Abrus precatorius* L. and 3-4 pieces of roots of *Achyranthes aspera* is mixed and the grinded pasty mass taken twice a day after meal for twenty days as cure for the treatment of piles. Kotoria (Lo, Ko); Bhurudubani (Ba, Bh); Dangarasahi (Sa).

48. *Lantana camara* (L.) var. *aculeate* (L.) Mold.

Family with Collection Number - (VERBENACEAE)./247

Vernacular Name: Malaria-jara, Putus, Bhat-bhirabi (Lo); Puhes (Sa).

Parts Used: Stem

Ethnomedicinal Uses: Decoction of plant (15ml) is taken for the treatment of tetanus & there is strict prohibition of taking of sour food during treatment and decoction of leaf is taken twice a day for a

week after food for the treatment of malaria fever. Kanakadhipa (Mu, Sa); Sagadi (Ba, Go); Kantagadi.

49. *Mangifera indica* L.

Family with Collection Number - (ANACARDIACEAE)/349.

Vernacular Name: Amba, Ambo,(O, Ba, Su, Go); Uli, Maska (Ko, Sa); Uli-daru, Ambati (Lo).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark decoction (15ml) is taken in empty stomach twice a day continuously for three days as a cure for blood dysentery and pasty mass of cotyledons is applied on heads as a cure for falling of hairs. Sarabasa (Sa); Raikalia (Ba); Kotoria (Mu).

50. *Madhuca longifolia* (Koenig) Macbr.var.*latifolia* A.Chev.

Family with Collection Number - (SAPOTACEAE)/291

Vernacular Name: Mahula, Moha (O, Ba, Su, Go, Bh); Mahul-daru (Sa, Mu); Mahua, Maul,(Lo).

Parts Used: Honey from flower

Ethnomedicinal Uses: Nectary honey collects from flowers and is taken continuously 7-days for cure of piles. Sarabasa (Sa); Kantagadi (Ba); Thakurmunda (Go, Su).

51. *Martynia annua* L

Family with Collection Number - (MYRTYNIACEAE)/294.

Vernacular Name: Angora, Bagha-nakhi (O, Ba Su, Go); Bilai Sarsar (Ko); Bana sarsar (Mu); Gay mukhi (Sa).

Parts Used: Seed Oil

Ethnomedicinal Uses: Seed oil is applied on swelling of joints for the treatment of rheumatism. Kundabai (Lo, Su); Handiphuta (Sa); Bhurudubani (Ba Bh); Dangarasahi (Ko).

52. *Mimosa pudica* L.

Family with Collection Number - (MIMOSACEAE)/288

Vernacular Name: Lajakuli, Lajkui, Lajuli, Nachkuli (O, Ba, Su); Lajuri, Lazomori (Lo); Lajkuni (Sa).

Parts Used: Root

Ethnomedicinal Uses: Decoction of root (3ml) mixed with paste of *Piper longum* (2gm) is taken in empty stomach once in the morning up to fifteen days for the treatment of chylous urine. Noto (Lo); Jambaban (Ba); Sagadi (Mu).

53. *Mimosa himalayana* Gamble.

Family with Collection Number - (MIMOSACEAE)/278

Vernacular Name: Kirkichi, Kirkichikanta, (O, Ba, Su); Langra-kanta, soiphur (Lo); Lajkuni (Sa).

Parts Used: Root

Ethnomedicinal Uses: Decoction of root (3ml) mixed with leaf paste of *Cymbopogon* species (2gm)

prescribed twice a day after food as a medicine against vomiting during fever. Noto (Lo, K); Jambabani (Ba, Bh); Sagadi (Mu, Go); Kaliasahi (Ko); Bangiriposhi (Su).

54. *Momordica charantia* L.

Family with Collection Number - (CUCURBITACEAE)./131

Vernacular Name: Kalara, Kolera, (O, Ba, Su, Bh); Koradi (Sa & Mu).

Parts Used: Fruit

Ethnomedicinal Uses: Fruit juice (3ml) mixed with root paste of *Hemidesmus indicus* (2gm) is taken twice a day after food for one month against sex debility. Handiphuta (Sa); Raikalia (Ba, Su); Monobhanga (Mu, Ko, Go).

55. *Murraya paniculata* (L.) Jack.

Family with Collection Number - (RUTACEAE)./136

Vernacular Name: Kamini, Ban mallik, Harkankali, Birijugi, Had kinkali (O, Ba, Su); Kamini-ba (Sa); Atil-sing (Lo).

Parts Used: Leaf

Ethnomedicinal Uses: Leaf paste (5gm) mixed with lime water (2ml) is applied twice a day against inflammation at the base of ear and decoction of root (2ml) mixed with honey (1ml) is given to children twice a day after food for the treatment of black fever. Sarabasa (Sa); Kantagadi (Ba, Su); Kuliana (Ko); Gandidhar (Mu, Go).

56. *Nyctanthes arbor-tristis* L.

Family with Collection Number - (OLEACEAE)./316.

Vernacular Name: Gangaseoli, Godokodika, Gurjoseoli, Singaroharo, Sepli, Sedi, Siruli, Ganthakhelika, Gutikhadica, Goudakhadika (O, Ba, Su, Go); Chirat, Saparon (Sa).

Parts Used: Stem

Ethnomedicinal Uses: Decoction of stem (3ml) with common salt (2gm) is taken in empty stomach for cure of dysentery and decoction of leaf (10ml) with paste of *Piper longum* (2gm) & honey (1ml) is taken twice a day before food against cold, cough & fever. Karanjia (Sa); Gandidhar (Mu); Jashipur (Ba Su, Go).

57. *Nelumbo nucifera* Gaertn. Fruct.

Family with Collection Number - (NYMPHAEACEAE)./321

Vernacular Name: Padam, Ranga padam, Dhala padam, Kani (O, Ba); Pundi - Salakid, Kakanada - Salukid (Lo).

Parts Used: Flower

Ethnomedicinal Uses: Decoction of red-flowered plants (Kakananda Salukid,) about 15ml is taken in empty stomach once a day for treatment of blood dysentery. Taldiha (Lo, Go); Ambadiha (Ba, Su); Patharkhani (Ko).

58. *Opuntia stricta* (Haw.) Haw. Var. *dillenii* (Ker-Gawl.) Benson.

Family with Collection Number - (CACTACEAE)/324

Vernacular Name : Nagphani, Nagophenia, Nagphani, (O, Ba, Su, Go) Nagaphini (Sa).

Parts Used: Phylloclade

Ethnomedicinal Uses: Pasty mass of whole plant (3gm) mixed with common salt (2gm) is taken twice for fifteen days as a cure for swelling of joints. Noto (Lo, K); Sarat (Ba, Su); Badajhada (Mu); Padmapokhari (Ko).

59. *Oroxylum indicum* (L.) Vent.

Family with Collection Number - (BIGNONIACEAE)/322

Vernacular Name : Phonphana, Phampan (O, Ba, Su); Rengebanam, Samahauk (Lo); Bans-hatak pareri (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Decoction of stem bark (2ml) with common salt (1gm) is prescribed twice a day for one month against menorrhagia of women. Noto (Lo, Ko) Kaptipada (Sa); jambabni (Ba, Bh), Gandidhar (Mu).

60. *Ocimum gratissium* L.

Family with Collection Number - (LAMIACEAE)/317

Vernacular Name: Gandhatulsi (O, Ba); Dimbu (Sa); Dimbu-baha (Lo).

Parts Used: Leaf

Ethnomedicinal Uses: Dried leaf powder is smoked as a cigarette for getting relief from asthma and leaf juice (3ml) with honey is given to babies once in the early morning continuously ten days for the treatment of common cold & cough. Babgiriposhi (Sa, Ko); Kantagadi (Ba); Noto (Lo).

61. *Oryza sativa* L.

Family with Collection Number - (POACEAE)/269

Vernacular Name: Dhano, Dhanno (O, Ba, Su, Go, Sa & Lo).

Parts Used: Seed

Ethnomedicinal Uses: -5 grains of rice with stale water is taken in the early morning for one month as a cure for gastric troubles. Karangia (Sa); Jashipur (Ba, Su); Gandidhar (Mu); Kosta (Lo).

62. *Phyla nodiflora* (L.) Greene.

Family with Collection Number - (VERBENACEAE) /318

Vernacular Name: Gosingi, (O, Ba, Su); Jalapipla (Sa).

Parts Used: Root

Ethnomedicinal Uses: Decoction of root (3ml) with un boiled egg (2mg) is given to women to promote sexual desire. Gadiapala (Sa); Ashanabani (Ba, Su); Kaliasahi (Ko).

63. *Phyllanthus emblica* L.

Family with Collection Number - (EUPHORBIACEAE)./273

Vernacular Name : Amla, Anola (O, Ba, Su, Go); Aouha, Meral (Sa); Miral-daru (Lo); Aura (Ko).

Parts Used: Leaf

Ethnomedicinal Uses: Fresh leaf juice (2ml) with diluted solution of common salt (1ml) used as a drop in eyes for improving weak eye sight. Kotoria (Lo, K); Nuasahi (Ba, Go); Handiphuta (Sa); Kaliasahi (Ko).

64. *Plumbago zeylanica* L.

Family with Collection Number - (PLUMBAGINACEAE)./263

Vernacular Name: Dhola chitapar, Chintamani, Ogni chitapari, (O, Ba, Su, Go); Chitapar, Kitamuli (Lo) Sitapar (Ko); Chitur (Mu).

Parts Used: Root

Ethnomedicinal Uses: Root is boiled in mustard oil and used for the treatment of rheumatism. Bhaluhuduca (Mu, Go); Sarabasa (Sa); Kantagadi (Ba, Su).

65. *Psidium guajava* L.

Family with Collection Number - (MYRTACEAE)./239

Vernacular Name: Pijuli, Peda (O, Ba Su Go); Pears (Lo); Tamras (Sa).

Parts Used: Flower

Ethnomedicinal Uses: Dried flower powder is prescribed to smoke as cigarette to get relieve from headache. Noto (Lo); Mankadapada (Ko, Bh); Raikalia (Ba, Su).

66. *Pterospermum acerifolium* (L.) Willd Sp.

Family with Collection Number - (STERCULIACEAE)./ 252

Vernacular Name: Kanaka champa (O, Ba, Su); Musch-kunidu-baha (Lo); Muskundu-daru (Mu, Sa).

Parts Used: Flower

Ethnomedicinal Uses: Dried flower powder is mixed with coconut oil (*Cocos nucifera*) and is applied on head for killing of hair lice. Handiphuta (Sa); Jadida (Ba); Kaptipada (Mu).

67. *Saccharum officinarum* L.

Family with Collection Number - (POACEAE)./258

Vernacular Name : Akho, Aku (O, Ba, Su, Go); Akh (Lo & Sa).

Parts Used: Stem

Ethnomedicinal Uses: Stem juice (5gm) with paste of black peppers (*Piper nigrum*) (1gm) is prescribed for the treatment of constitutional disorder. Manida (Ba, Su, Go); Badajhada (Mu); Dukura (Ko).

68. *Santalum album* L.

Family with Collection Number - (SANTALACEAE)./209

Vernacular Name: Chandan (O, Ba, Su, Go).

Parts Used: Wood

Ethnomedicinal Uses: Wood paste is applied on forehead against headache and oil is used as stimulant and expectorant for bronchitis. Uthanisahi (Sa); Kantagadi (Ba); Badajhada (Ba); Kaliasahi (Ku).

69. *Schleichera oleosa* (Lour.) Oken.

Family with Collection Number - (SAPINDACEAE)./207

Vernacular Name: Kusum, Pagada (O, Ba, Su, Go); Kohumu, (Ko); Beru (Mu); Pular (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste is applied on skin before bed as curative against for itching and seed oil are used for treatment of gout and scabies Uthanisahi (Mu, Ko); Handiphuta (Sa); Ambadiha (Ba, Su).

70. *Scoparia dulcis* L

Family with Collection Number - (SCROPHULARIACEAE)./223.

Vernacular Name: Chirarita, Khelopapada (O, Ba, Su); Chirarita (Ko); Boradajing (Sa); Atsirsa (Mu); Chinisagar, Barigaugai (Lo).

Parts Used: Leaf

Ethnomedicinal Uses: Decoction of leaf (20ml) is taken twice continuously ten days for the treatment of sore throat. Kantagadi (K); Kaliasahi (Ko); Thakurmunda (Su, Go).

71. *Sesbania bispinosa* (Jacq.)W.F.Wight.

Family with Collection Number - (FABACEAE). /257

Vernacular Name: Dhanicha (O, Ba, Su); Charpijang (Sa).

Parts Used: Seed

Ethnomedicinal Uses: Mixture of seed paste (3 gm) with lime water (1ml.) is applied before bed as a cure for ring worm. Raikalia (Sa); Phulgadia (Ba); Bdajhada (Mu).

72. *Shorea robusta* Gaertn.f.Fruct.

Family with Collection Number - (DIPTEROCARPACEAE). /588

Vernacular Name: Sal, Salura, Sekura, Sagua, Rengal (O, Ba, Su, Go); Sarjam (Sa, Ko); Sakhu (Mu); Sal-mugra (Lo).

Parts Used: Seed

Ethnomedicinal Uses: Seed paste is applied with slight boiling before bed for the treatment of carbuncle. Bhaluhuduka (Ko, K); Sagadi (Ba, Su); Sarabasa (Sa); Chhanua (Mu).

73. *Sida acuta* Burm. f.

Family with Collection Number - (MALVACEAE)./187

Vernacular Name: Bariari, Bajarmuli, Ipirpunga, Ancharna, Siobola, Sunakhadika, (O, Ba, Su, Go);

Nelakuturi, Ipipijon (Ko) pirpiching (Mu) Birmiru-baha, Chiknidal (Sa); Nelakuturi, Carchija (Lo).

Parts Used: Leaf

Ethnomedicinal Uses: Decoction of leaf (3ml) mixed with paste of (2gm) *Piper nigrum* and lime water (1ml) is taken twice a day after food for a week as a cure for swellings of scrotum. Kaptipada (Sa, Ko); Dibasahi (Mu); Jambabani (Ba, Bh).

74. *Solanum violaceum* Orteg.

Family with Collection Number - (SOLANACEAE)/311

Vernacular Name: Bhejibaigana, Kantra, Dengabheji, (O, Ba, Su); Bayakew (Lo); Huring-hanged (Mu); Poko-bhijri (Sa).

Parts Used: Fruit

Ethnomedicinal Uses: Green Fruits (10-12) fried in mustard (*Brassica campestris*) oil is taken for the treatment of cough & cold. Chuinposhi (Mu); Gardiapala (Sa); Karanjia (Ba, Go).

75. *Soymida febrifuga* (Roxb.)A.Juss.

Family with Collection Number - (MELLIACEAE)/319

Vernacular Name: Rohini, Sawan, Sohan, Swam (O, Ba, Su); Rahara, Scean, Taka-Rahora (Lo); Ruhingruning-daru (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Decoction of stem bark (5 ml) is prescribed to woman for one month twice a day after food as a cure for anemia. Sarabasa (Sa); Kantagadi (Ba); Kaptipada (Mu); Baubandh (Ko, K).

76. *Spondias pinnata* (L.f.) Kurz.

Family with Collection Number - (ANACARDIACEAE)/306.

Vernacular Name: Ambada, Ambota, Amta (O, Ba, Su); Amubru (Mu); Ambra (Sa); Srena (Ko); Ma-joada (Lo).

Parts Used: Root bark

Ethnomedicinal Uses: Root bark paste (5gm) with mustard oil (1ml) used as massage for the treatment of muscular pain. Kuliana (Mu); Uthanisahi (Ko); Handiphuta (Sa); Ambadiha (Ba); Kotoria(Lo).

77. *Streblus asper* Lour.

Family with Collection Number - (MORACEAE)/261

Vernacular Name: Sara, Sahuda, Sahada (O, Ba, Su, Go); Ote-chum, Skri-Saijnga (Lo); Sahara (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste (about 10gm) is taken once a day continuously one month for the treatment of elephantiasis. Taladiha (Lo); Uthanisahi (K); Talia (Su).

78. *Strychnos nux-vomica* L.Sp.

Family with Collection Number - (STRYCHNACEAE)./299

Vernacular Name: Kuchila (O, Ba, Su, Go); Gorumar (Sa).

Ethnomedicinal Uses: Pasty mass of stem (3gm) with Kusum (*schleichera oleosa*) Seed oil (1ml) is prescribed twice a day after food for ten days continuously for the treatment of Leucoderma. Hadrachua (Sa); Nuasahi (Ba); Kantagadi (Su); Patharakhani (Ko).

79. Terminalia arjuna (Roxb.ex Dc.) Wight & Arn.

Family with Collection Number - (COMBRETACEAE)./305

Vernacular Name: Arjuna (O, Ba, Su, Go); Behra, Kahua (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Decoction of stem bark (20 ml.) is taken once a day in empty stomach continuously five days for the treatment of malaria fever. Bhaluhuduka (Mu); Sagadi (Ba) Hadarachua (Su); Salamunduli (Go); Gadiapal (Ko).

80. Terminalia bellirica (Gaertn.) Roxb.

Family with Collection Number - (COMBRETACEAE). /303.

Vernacular Name: Bhadara, Bahada (O, Ba); Behra (Sa); Lupung -daru (Lo).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste (2gm) is prescribed to women with boiled water twice a day after food continuously ten days as a cure for leucoderma. Kotoria (Lo, Ko); Sarabasa (Sa); Gandidhar (Mu); Thakurmunda (Go).

81. Terminalia chebula Retz.

Family with Collection Number - (COMBRETACEAE)./300

Vernacular Name: Kasaphala, Harida (O, Ba, Su); Rola-daru, Hara (Lo); Hora-daru (Sa).

Parts Used: Fruit

Ethnomedicinal Uses: Fruit infusion (15 ml) is taken in empty stomach once a day as cure for dysentery. Kaptipada (Sa); Chhanua (Ba); Monabhanga (Mu).

82. Tephrosia purpurea (L.) Pers.

Family with Collection Number - (FABACEAE). /304

Vernacular Name: Bano-kuthi, Gileri, Kulathio, Ban-nilo, Mohisia-Kotathiya, Pokha, Soropokha, Kulathia (O, Ba, Su); Nol-gach, Bir-chakunda (Lo); Anuraida (Sa).

Parts Used: Leaf

Ethnomedicinal Uses: Decoction of leaf (5ml) mixed with honey (2ml) given to women twice a day continuously for one month against post natal complications. Podadiha (Ba, Su); Monobhanga (Go); Gandidhar (Mu).

83. Tinospora cordifolia (Willd.) Hook.f. & Thoms.

Family with Collection Number - (MENISPERMACEAE)./285.

Vernacular Name: Gulachi, Gulochi, Guluchilata, Tihada (O, Ba, Su); Gursilali,(Ko); Cunchi (Sa); Titmaal, Nim-gulanacha (Lo).

Parts Used: Stem

Ethnomedicinal Uses: Decoction of stem (3ml) with common salt (2gm) is taken in empty stomach for one month for the cure of acidity. Taldiha & Noto (Lo); Sarat (Ba, Su).

84. *Triticum aestivum* L.

Family with Collection Number - (POACEAE)./245

Vernacular Name: Gahama, Gonhu, (O, Ba, Su); Goin, Gahu (Lo & Sa).

Parts Used: oil of the ghost

Ethnomedicinal Uses: Wheat bran oil (5ml) with country liquor (3ml) is prescribed to girls for treatment of dysmenorrhoea (painful menstruation). Gandidhar (Mu); Kundabai (Lo); Gadiapal (Sa).

85. *Tridax procumbens* L.

Family with Collection Number - (ASTERACEAE)./244

Vernacular Name: Bhumi poksungo, Bisalya karani (O, Ba, Su); Susumujar (Sa); Bisal gacha, Kulal puduga (Ku).

Parts Used: Leaf

Ethnomedicinal Uses: Fresh leaf juice is applied as antiseptic cream for healing of cut wounds. Gandidhar (Mu); Nachimpur (Ba); Kalmagadia (Sa).

86. *Vetiveria zizanioides* (L.) Nash in Small.

Family with Collection Number - (POACEAE)./307

Vernacular Name: Bena (O, Ba, Su); Bena-ba, Sirom (Lo); Siromu, Siron (Mu & Sa).

Parts Used: Stem

Ethnomedicinal Uses: Stem decoction (about 20ml) is prescribed as cure for diseases where urine with milky fluid due to suspension of fat globules in it. Gandidhar (Mu); Kundabai (Lo); Gadiapal (Sa); Rairangpur (Ko, K).

87. *Vitex negundo* L.

Family with Collection Number - (VERBENACEAE)/281

Vernacular Name: Begunia, Nirgundi, Beyguna (O, Ba, Su, Bh); Bengunia-ba (Lo); Bengunia, Lunguni (Sa).

Parts Used: Root bark

Ethnomedicinal Uses: Decoction of root bark (about 15ml) with paste of 21 black peppers (*Piper nigrum*) is taken twice a day after food continuously seven days for the treatment of typhoid fever. Kuliana (Sa); Nuasahi (Ba, Go); Gandidhar (Mu).

88. *Withania somnifera* L.

Family with Collection Number - (SOLANACEAE)./242

Vernacular Name: Ashwagandha (O, Ba, Su); Care-su (Lo).

Parts Used: Flower

Ethnomedicinal Uses: Decoction of flower with honey is taken in the ratio of 5: frequently for one month against seminal weakness. Sarabasa (Sa); Nachhimpur (Ba); Bhaluhuduca (Mu); Kaliasahi (Ko).

89. *Woodfordia fruticosa* (L.) Kurz, J.Asiat.

Family with Collection Number - (LYTHRACEAE)./315

Vernacular Name: Dhai, Dhatuki, Dhatki, Dhatuk, Jaliko, Harwari, Dhia, Dhataki (O, Ba, Su, Go); Icha, Ichak, Patakalu; (Sa); Dhawai-ba, Ichak-ba (Lo).

Parts Used: Dried flower

Ethnomedicinal Uses: Dried flower powder (5gm) with honey (1ml) is given to women once a day continuously one month for the treatment of leucorrhoea. Hadarachua (Sa); Nuasahi (Ba); Nandurusahi (Mu); Kaliasahi (Ko).

90. *Zizyphus mauritiana* Lam.

Family with Collection Number - (RHAMNACEAE)./211

Vernacular Name: Borokoli, Bodokoli, Bodori, Boyer, Barakuli (O, Ba, Su); Janumjan (Ko), Dodari, Kanta-pitali, Serka (Lo); Barkoir, Jam-janum (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Stem bark paste is taken twice a day after food as a cure for abdominal pain during pregnancy. Karanjia (Sa); Kantagadi (Ba); Kuliana (Ko).

91. *Zizyphus oenoplia* (L.) Mill.

Family with Collection Number - (RHAMNACEAE)./217

Vernacular Name: Kantakoli, Kantaikoli, Burukoli, Kanakoli, Tinkoli, (O, Ba, Su); Shiakul, Bir-janum (Lo); Janumbill, Bagriba (Sa).

Parts Used: Stem bark

Ethnomedicinal Uses: Mixture of decoction of stem bark (3ml) with paste of long peppers (*Piper longum*) (2gm) is taken in empty stomach in early morning for cure of dysentery. Sarabasa (Sa); Kantagadi (Ba); Kundabai (Ko).

92. *Zizyphus rugosas* Lam.

Family with Collection Number - (RHAMNACEAE)./248.

Vernacular Name: Gutto, Gonti, Goto, Gotoboro, Kantabohul, Ghanto Ghat, (O, Ba, Su); Karkatadaru (Lo); Kotadi, Kat-baer (Sa.).

Parts Used: Leaf

Ethnomedicinal Uses: Pasty mass of leaves mixed with sugar (5 gm) & is taken as a preventive measure for pox. Sarabasa (Sa); Chhanua (Ba); Monabhanga (Mu).

DISCUSSION

A number of organizations within India are concerned with maintaining India's Traditional Medicine Systems. In addition, there is a wide spread development network, and established pharmaceutical industry and a wealth of botanical experts in the country. Until now, however, there has been little effort to document the volume and impact of national or international trade in India's medicinal plants. (Ganesan, S. and Kesavan, L, 2003) According to the latest figures, it costs around 800 million dollars to put a new drug on the market. When companies manufacture a product based on TK and convert it into a medicine, they "acquire" a product which is worth a few hundred million dollars (Jain, 1986, 1995). A USA based top pharmaceutical companies like MERCK, RANBAXY and SHAMAN are the classical examples. Such is the enormous potential hidden in these plants gifted by Nature. (Ahmad, M., Khan, M. A. and Qureshi, R. A, 2003).

After lengthy discussions with the local doctors practising siddha, Ayurveda and unani (Indian alternative medical systems), it was learnt that these plants listed by the authors in this investigation are very much used by them in making various formulations for a variety of ailments. From the enumeration study, it is obvious that the tribes of similipal bioreserve, who either work as labourers or cultivate crops such as Paddy, Mandia, Jhoar and mostly depend on forest and the forest products to sustain their livelihood. (Saeed M. M, Arshad M, Ahmed E and Ishaque, M. 2004) The tribals inherit rich traditional knowledge about the flora investigated and apply this knowledge for making crude phytomedicines to cure infections as simple as cold to as complicated as cancer. These crude herbal medicines are based not only on traditional knowledge but also on rituals and beliefs. For instance the treatment given by the herbal healer for a patient suffering from jaundice is paste of a particular herb and onion along with a copper coin tied religiously around the shoulder and it is believed that it has a magical cure! Another remarkable feature of the study was the presence of sacred groves in all the hamlets. Sacred groves are one of the most important and essential bio-resources of the country. (Mukherjee T. K. 2004). It represents an ancient Indian system of conservation tradition, protected by the local people out of reverence and respect, fear and sentiment for Nature and incarnation of Nature. They are home to local flora and fauna, a veritable gene pool and mini biosphere reserve. It is note worthy that similipal bioreserve tribal village has the maximum number of sacred groves. It is observed with a sad note that this TK which formed the basis for origin of not only alternative medicine but also paved way to evolution of a gamut of new and novel modern medicines, is facing slow and natural death as these communities are eventually oriented more towards modern medicine as they believe it gives a quick remedy, while it is paradoxical to see the modern world of late, focusing more on alternative medicine which has herbal base predominantly. Presently, very few elders in the tribal community practice herbal cure, while the young and current generation knows little or nothing about the traditional herbal medicines. If this trend continues, a few years from now, there will not be even a single elder member in tribal community who knows TK on medicinal plants to welcome an ethno-botanist with "EVERYTHING GREEN IS MEDICINE".

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