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Ethnomedicinal plants of Tamar block of Ranchi district, Jharkhand

Dara Singh Gupta^{**}, Manoj Ranjan Sinha^a & Pushpa Salo Linda^b

^aDept. of Botany Jamshedpur Co-operative College, JSR

^bDept. of Botany Jamshedpur Worker's College, JSR

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Abstract : Herbal medicine has been widely practiced throughout the world since ancient times. These medicines are safe and environmentally friendly. In the study of 144 medicinal plant species belonging to 98 genera and 57 families have been recorded. Out of these the most important species found were *Abrus precatorius*, *Acacia arabica*, *Acacia catechu*, *Achyranthus aspera*, *Aegle marmelos*, *Albizia lebbek*, *Adhatoda vasica*, *Allium spp.*, *Brassica campestris*, *Cajanus cajan*, *Calotropis procera*, *Carica papaya*, *Cassia angustifolia*, *Chenopodium album*, *Cucurbita maxima*, *Curcuma longa*, *Datura metal*, *Daucus carota*, *Eclipta prostrata*, *Embllica officinalis*, *Ficus bengalensis*, *Helianthus annus*, *Holarrhena antidysenterica*, *Lantana camara*, *Rauwolfia serpentina*, *Shorea robusta*, *Sesamum indicum*, *Tamarindus indica*, *Terminalia arjuna*, *Terminalia bellerica*, *Tectona grandis*, *Ziziphus jujuba* etc.

The natural distribution of these medicinal plant species in twenty five revenue villages of Tamar Block of Ranchi District of Jharkhand were marked with the help of map, location, and distribution of forest area. The study revealed that the documented ethno medicinal plants have potentially curative properties with immense commercial value. Moreover, the medicinal plants can be grown commercially by the villagers of Tamar Block through improved modern technique.

Key words : Ethno medicinal plant, Tamar Block, Ranchi, Jharkhand, Commercial value.

INTRODUCTION

Ethno medicine is a study or comparison of the traditional medicine practiced by various ethnic group and especially by indigenous peoples. The word ethno medicine is sometimes used as a synonym for traditional medicine. Traditional various tribes have been using medicinal plants from time immemorial for the treatment of various diseases. Traditional system of medicine plays a very prominent role in health care system of rural people covering all types of ailments. Rig-Veda, Atharva-Veda have details to cure different types of diseases. Charka Samhita and Shusruta

Samhita are regarded two most important documents of this system of medicine.

Throughout the world plants have been in continuous use in one way or the other for the treatment of various ailments. In India the secret Vedas which date back between 3500BC and 800BC, give many references to medicinal plants. Nearly 80% of the world population depends upon traditional system of health care. This work concentrates on potential ethno medicinal value of plants and herbs commonly used by the Munda Tribe residing in and around Tamar Block of the area served.

MATERIAL & METHOD

Different villages of Tamar Block were surveyed time to time in different seasons. Interviews were conducted

*Corresponding author :

Phone: 09470389533

E-mail: darasgupta.jcc@gmail.com

involving the folk herbal healer's traditional birth attendants, knowledgeable person and lay population with the help of Questionnaire, information regarding the mode of preparation of drugs and methods of their administration along with the doses were recorded. Plant specimens were photographed and identified with the help of different floras. The herbarium is also made and the chemical constituent of the plants are also found out by different books of medicinal plants.

The Tamar Block has 81 revenue villages. Out of 81 revenue villages, 35-40 revenue villages covers many ethno medicinal plants. The ethno medicinal plants containing villages are Poradih, Salgadih, Jaradih, Murpa, Kasam Burudih, Parasi, Gutibaru, Rolabera, Gunti, Rabo, Arahangah, Konkadih, Timpur, Banki, Luntu, Papirda, Chatamsal, Pundidiri, Birdih, Paramdih, Baghai etc. The geographical area of this block is 118069.11 Acres. Out of this area about 29767.42 Acres (about 29%) covering forest region. All forest region contains numerous ethno medicinal plants. In this Block the Munda tribe is about 43%, according to 2011 population census.

RESULTS & DISCUSSIONS

144 medicinal plant species are being used for treating different ailments of Twenty three revenue villages of Tamar Block. Besides these medicinal properties the plants have other uses also like edible fruits, vegetables, timber, fiber, oil yielding, fodder etc. *Abrus precatorius* (Hindi-Ratti, Fam-Fabaceae) is used in nervous disorder, cattle poisoning, Abortifacient, Antibacterial, Antifertility, Anthelmintic, Analgesic, Antileprotic, Ophthalmia, Leucoderma, Fever, Asthma etc. *Abutilon indicum* (Hindi-Kanghi, Fam-Malvaceae) is used in the treatment of piles, chronic cystitis, gonorrhoea ulcers, toothache, fever, chest affections. *Acacia catechu* (Hindi-Khair, Fam-Mimosaceae) is used in different kinds of skin diseases. It also used in dental disorder, dry cough, anaemia, leprosy, bronchitis, diarrhoea and polyuria. *Acacia concinna* (Hindi-Shikakai, Fam-Mimosaceae) is used in chronic cough, jaundice, vomiting, liver diseases, alopecia etc. *Acacia arabica* (Hindi-Babul, Fam-Mimosaceae) is used in different kinds of skin diseases. It is also used in blood dysentery, hemorrhagic diseases, polyuria, leucoderma, wound

healing, dry cough, gargle and stomatis. *Achyranthes aspera* (Hin-Chirchita, Fam-Amaranthaceae) is used in the treatment of piles, boils, skin eruption, colic, snake bite, dysentery and leprosy. *Aconitum heterophyllum* (Hin-Atis, Fam-Ranunculaceae) is used in the treatment of all types of fever. This plant is also used in cough and kinds of liver diseases. The piles, Rhinitis, Diarrhoea, Vomiting, Oedema, colic pain etc. Are also relief by the use of this plant. The plant *Acorus calamus* (Hin-Bach, Fam-Araceae) is used in the treatment of Dyspepsia, Colic, Remittant fever, Blood pressure, Cough, Throat disorder, chronic diarrhoea, tumours etc. *Adhatoda vasica* (Hin-Arusa, Fam-Acanthaceae) is used in the treatment of cough, chronic bronchitis, asthma, rheumatism, respiratory disorder, antipyretic, anti tuberculosis, gonorrhoea, and jaundice and ophthalmic. The ripe fruit of *Aegle marmelos* (Hindi-Bel, Fam-Rutaceae) is used as an astringent and chronic diarrhoea. The fresh juice of leaves is used against diabetes, fever, cough fever, and dysentery. The fruits and leaves are also used in the treatment of Ear diseases, Jaundice, Piles, Inflammation and vomiting. *Albizia libbek* (Hindi-Siris, Fam-Caesalpinaceae) is used in all types of cough, Asthma, Scabies, Leprosy, Snake bite, and Scorpion sting. The leaves are used in the treatment for night blindness. The *Allium cepa* (Hin-Pyaj, Fam-Liliaceae) is stimulants and given in dysentery, piles, bronchitis, jaundice, anus prolapse, and night blindness. The plant of *Allium sativum* (Hin-Lahsun, Fam-Liliaceae) is used in malarial fever, epilepsy, tuberculosis, ulcer, ear trouble, throat disorder, skin diseases, bone ulcer, chronic cough, asthma, bronchitis, and lobar pneumonia. The pulp of *Aloe vera* (Hindi-Ghee kuar, Fam-Liliaceae) is used for cure piles, rectal fissures, cough, cold rheumatism constipation, fever, colic, menstrual disorder. It is also stomachic, anthelmintic, uterus stimulant and hypertensive. The roots of *Amaranthus spinosus* (Hin-Katelichouli, Fam-Amaranthaceae) is given for gonorrhoea, colic, and burn. The plant is antidote, anti bilious, useful in inflammation, fever, cough, diarrhoea, leucorrhoea, gonorrhoea and metrorrhagia. The plant of *Amorphophallus companulatus* (Hin-Suran, Fam-Araceae) is used in piles, asthma, splenomegally, flatulence, rheumatism, gastric troubles, colic, cough, and vomiting. fruit of *Anacardium*

occidentale (Hin-Kaju, Fam-Anacardiaceae) is in dropsy, dyspepsia, fever, piles and sprue. The plant *Andrographis paniculata* (Hin-Kalmegh, Fam-Acanthaceae) is given in chronic dysentery and stomach tonic. It is also used in blood purifier. The plant of *Annona squamosa* (Hin-Sitaphal, Fam-Annonaceae), the leaves and fruits are used against cancer and tumour. Juice is useful in wounds. Dried root powder is taken once in morning for five days by women for abortion of 3 to 4 months of pregnancy. *Anthocephalus cadamba* (Hin-Kadam, Fam-Rubiaceae) is in snake bite, cardiac depressant, polyuria, and antiabortifacient. The latex of *Argemone mexicana* (Hin-Satyanashi, Fam-Papaveraceae) is used in jaundice, skin affection, malaria and applied externally to stop bleeding from cuts and wounds. Root's juice mixed with pepper is given to children for the disease of supposed to be caused by cats. This plant is also used in wound healing, leprosy and blood purifier. The roots of *Artocarpus heterophyllus* (Hin-Kathal, Fam-Moraceae) is used in asthma, diarrhoea, stomach complaints, toothache, and smallpox. *Asparagus racemosus* (Hin-Satawar, Fam-Liliaceae) is used in the treatment of dysentery, antiseptic, and diuretic. It is also useful in acidity and ulcer patient. The bark of *Azadirachta indica* (Hin-Neem, Fam-Meliaceae) is used in rhinitis affections, malarial fever, antiulcer, and antibacterial. The leaves are useful in Eczema, Ringworm, and Fungal affection and antiseptic. The whole plant is useful in scabies, ulcer, leucoderma, inflammation, blood purification. The oil of mangos tree is useful in rheumatism, leprosy, and ulcer. The plant of *Bacopa monieri* (Hin-Jalneem, Fam-Scrophulariaceae) is used in dyspepsia, cough, fever, insomnia, and epilepsy, debility after heart attack, less memory, tension, and blood purifier. In addition to above mention plants the ethno medicinal plants such as *Bauhinia racemosus*, *B. variegata*, *Boerhaavia diffusa*, *Bambusa arundinacea*, *Basella alba*, *Brassica campestris*, *Bryophyllum calycinum*, *Butea monosperma*, *Bombax ceiba*, *Calotropis procera*, *Cannabis sativa*, *Capsicum annum*, *Carica papaya*, *Cassia tora*, *Catharanthus roseus*, *Centella asiatica*, *Chenopodium album*, *Chlorophytum tuberosum*, *Cinnamomum tamala*, *C. zeylanicum*, *Cissampelos pareira*, *Cissus quadrangularis*, *Citrus medica*, *Clerodendrum inerme*, *Coccinia indica*, *Coriandrum sativum*, *Curcuma longa*, *Curcuma amada*, *Cuscuta reflexa*,

Cynodon dactylon, *Cyperus rotundus*, *Dalbergia sissoo*, *Datura metel*, *Daucus carota*, *Eclipta alba*, *Embllica officinalis*, *Tabernaemontana divaricata*, *Euphorbia hirta*, *Euphorbia neriifolia*, *Ficus bengalensis*, *F. glomerata*, *F. religiosa*, *Foeniculum vulgare*, *Gmelina arborea*, *Gossypium herbacium*, *Helianthus annuus*, *Hibiscus rosa-sinensis*, *Holarrhena antidysenterica*, *Jatropha gossypifolia*, *Lantana camara*, *Lawsonia inermis*, *Linum usitatissimum*, *Luffa acutangula*, *Lycopersicum esculentum*, *Mangifera indica*, *Mentha arvensis*, *Michelia champaca*, *Mimosa pudica*, *Mirabilis jalapa*, *Momordica charantia*, *Moringa pterigosperma*, *Morus indica*, *Murraya koenigii*, *Musa sapientum*, *Nelumbium speciosum*, *Nerium indicum*, *Nigella sativa*, *Nyctanthes arbour-tristis*, *Ocimum gratissimum*, *O. sanctum*, *Oldenlandia corymbosa*, *Oxalis corniculata*, *Papaver somniferum*, *Phyllanthus nirurii*, *Phylla nodiflora*, *Pongamia pinnata*, *Psidium guajava*, *Punica granatum*, *Quisqualis indica*, *Rauvolfia serpentina*, *Ricinus communis*, *Rosa centifolia*, *Saccharum officinarum*, *Saraca indica*, *Shorea robusta*, *Sida cordifolia*, *Solanum indicum*, *S. melongena*, *S. nigrum*, *S. xanthocarpum*, *Spinacia oleracea*, *Swertia chirata*, *Syzygium cumini*, *Tagetes erecta*, *Tamarindus indica*, *Tectona grandis*, *Terminalia arjuna*, *T. belerica*, *T. chebula*, *T. tomentosa*, *Thevetia peruviana*, *Thuja orientalis*, *Tinospora cordifolia*, *Trapa natans*, *Vitex negundo*, *Withania somnifera*, *Zingiber officinale*, *Zizyphus jujuba*, etc. Plants have also great medicinal values.

In the study of 144 plant species such as *Amaranthus spinosus* L, *Bombax ceiba* L, *Cassia angustifolia* L, *Centella asiatica* L, *Curcuma amada* L, *Cuscuta reflexa* L, *Dioscorea alata* L, *D. bulbifera* L, *Ficus bengalensis* L, *Embllica officinalis* Gaertner, *Gmelina arborea* Roxb, *Justicia adhatoda* L, *Sida cordifolia* L, *Terminalia bellerica* Roxb, *T. chebula* Retz, are rare and the rest species of above mentioned are common and found in all twenty three revenue villages of Tamar Block of Ranchi District here and there.

Many ethno medicinal plants are facing threats in all block area due to anthropogenic pressure and anthropogenic activities. Many knowledgeable person and vaidhyas are collected the different ethno medicinal plants from different parts of the forest region of these mentioned villages. Measure should be taken to prevent anthropogenic

pressure for future conservation. Presently very few elders in the Munda tribe 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 who knows these herbal medicines. Hence that time only ethno-botanist has knowledge to these ethno medicinal plants. Hence, it can be said “**Everything Green is Medicine**”.

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REFERENCES

1. **Haines, H.H. 1921–25.** The Botany of Bihar and Orissa (6th Parts.)
2. **Sahu, T.R. 1982.** An ethnomedicinal study of M.P. – Plants used against various disorders among tribal women.
3. **Maheshwari, J.K. Singh, K.K. & Saha S. 1986.** Ethnobotany of tribals of Mirzapur District, Uttar Pradesh, Economic Botany Information Service, NBRI, Lucknow.
4. **Rai, M.K. 1989.** Ethnomedicinal Studies of Chhindwara District.
5. **Hemrom Peter Paul, 1994.** Horopathy..
6. **Jain S.K. 1995.** “A manual of Ethnobotany” – 2nd Edition Scientific Publisher – Jodhpur.
7. **Sinha Rajiv K. 1996.** The Renaissance of Traditional Herbal Medicines.
8. **Topno, S. & Ghosh, T.K. 1996.** Study of Plants used in Traditional medicine system of Khunti Sub Division of Chhotanagpur.
9. **Singh, K.K. Palvi, S.K., and Aswal, B.S. 1997.** Survey and Biological activity of some ethnomedicinal plants J. of Non- 4(1/2): 26-31.
10. **Behera K. Kumar 2006.** Ethnomedicinal Plants used by the Tribals of Similipal Bioreserve Orissa, India (A Pilot Study).
11. **Trivedi P.C. 2007.** Ethnomedicinal Plants of India.
12. **Yesodhara K. & Sujana K.A. 2007.** Status of ethnomedicinal plants in the Parambikulam Wild life Sanctuary, Kerala, South India.
13. **Dutt Ashwini, 2008.** An Introduction to Medicinal Plants.
14. **Rout, S.D., Panda, T. & Mishra N. 2009.** Ethnomedicinal Plants used to cure different diseases by Tribals of Mayurbhanj District of North Orissa, India.
15. **Singh, M. P, Oraon, B.C. & Narendra Prasad, 2009.** Medicinal Plants, APH Publishing Corporation, New Delhi.
16. **Choudhary Manabendra Dutta, Meenakshi Bawari, L. Shyamali Singha, 2010.** Some Antipyretic Ethnomedicinal plants of Manipuri community of Barak Valley, Assam, India.
