

An Ethno-botanical study of Tharu Tribe residing in Shravasti district of Uttar Pradesh, India

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ABSTRACT

Tharu tribe is indigenous to Tarai region of India spreading from Uttarakhand, Uttar Pradesh, and Bihar states of India and adjoining southern part of Nepal. A localized survey on ethnobotanical knowledge of plant uses in Tharu tribe residing in Shravasti District of Uttar Pradesh was conducted and its social, cultural and economic importance was assessed in their daily life. The survey was conducted and recorded from the elderly people of the community in a prescribed proforma. The survey reveals that the tribe has multiple utilizations of plants such as medicine, food source, house construction, agriculture implements, as furniture, and in rituals etc. As ethnobotanical use, forty five important plant species were identified that were conventionally used by Tharu tribe. Out of 45 plant species, thirty plant species are used in medicine, Ten are used for structural purposes such as hut, house shelter, brooms, furniture and agriculture tools and five plants are being used in various rituals.

Keywords: *Ethnobotany, Sacred trees, Medicinal uses, Tarai region, and Tharu etc.*

Introduction

Tharu tribe is indigenous to tarai region between in India and Nepal. In India, Tharus are spread from Uttarakhand to north western UP, and Bihar region. Most of the Tharus are forest dwellers and they are dependent to forest for their day to day need. Due to high rainfall in this geographical region the area is covered with dense forest dominated by *Shorea robusta* (Sal), *Tectona grandis* (Teak) *Syzygium cumini* (Jamun), *Dalbergia sissoo* (Shisham), bamboo and cane etc. They speak various dialects and engaged in agriculture and animal husbandry as a main occupation (Verma, 2011). Tharus use many plants in healthcare practices and have folk knowledge about their uses (Kumar *et al.* 2006). District Shravasti was created by carving out Bahraich and Gonda District of Uttar Pradesh in 1997. It is in the northwestern part of Uttar Pradesh near the Rapti

river covering 1858.20 km² areas. According to census of 2011, Shravasti has total 11, 14,615.00 population among them 5,340 people belong to Tharu population. Tharu tribe is generally living in forest fringe villages along the India-Nepal border. The Government of India has notified the Tharus as scheduled tribe in 1967. They are the largest tribe of the state of U.P. Their economy is mostly agriculture based and grows rice, maize, wheat, barley, lentil, potatoes, peas, sugarcane and mustard as their main crops. There are a number of socio-economic and demographic factors which contribute to the well-being of the area (Kumari *et al.*, 2020). Although the tribes are primarily agriculturists, their economy is of a mixed kind. They collect various forest products such as wild berries, wild bulbous, nuts, and tuberous roots as vegetable food, and a variety of herbs and plants

for medicinal use. They collect grasses and woods for various purposes like weaving of baskets, mats, construction of houses, herbs for brewing drinks, and for religious ceremonies. Ethno-botany is generally considered as man-plant relationships among forest dwellers and other rural folk (Mishra *et al.*, 2021). Ethnobotanical studies of Tharu tribe of India and Nepal have been conducted by many researchers and documented the medicinal uses of plants (Maheshwari *et al.*, 1980); Mishra and Shrivastava, 2018; Thapa, 2020). Local natural resources have immense economic importance in various industries viz., pharmaceutical, timber, Ayurveda, handicrafts, match, food, fodder and fuel (Kumar *et al.*, 2017). The traditional practices of Tharu tribe are mostly undocumented and transferred generation to generation in verbally. Further, the Tharu-dominated terai area, of Uttar Pradesh is, remained unexplored. Consequently, the Tarai region of Shrawasti district of Uttar Pradesh was chosen for the survey, where Tharu tribes are residing in small pockets namely Motipur, Bhachkahi, Masaha Kalan and Katkuinya village. A systematic documentation of their knowledge is an urgent necessity of time to protect and preserve their traditional knowledge. Therefore the aim of this work is to compile and put forward their traditional folks into the public domain. Placing this knowledge in the public domain and providing credit to the source of this knowledge will be a real justice to the community.

Materials and Methods

Study area and Ethno-botanical Exploration

Field visits were conducted in Motipur, Bhachkahi, Masaha Kalan and Katkuinya villages of Shrawasti, Uttar Pradesh during 2021, for collecting the data of plant species, traditionally used by Tharu. The nearby forest area and agriculture lands were also visited with the Tharu tribe people for correct identification of plants. The plants were identified as per the local and regional flora records of Uttar Pradesh (Duthie, JF, 1911-15, Kanjilal, 1933).

Survey Methodology-

The first-hand information regarding traditional use of plants were recorded from elderly persons by using semi structured questionnaires on plant parts used for medicine, agriculture implements, transport, furniture, hygiene and rituals. The data included the local name of plant, medicinal uses,

part of plant used, preparation methods and tradition values.

Results and Discussion

Tharu tribes live in forest fringes are generally shy to speak and like to stay isolated from city life. However they were having good knowledge of traditional uses of plant species as food source and medical treatments. They use locally available plant resources to cure various diseases and utilize it in their rituals, farm practices, transportation etc. around forty five plant species were identified available in their locality which were being used by the Tharu tribe frequently in their daily life. Out of 45 plant species reported, 30 plant species were used as medicine, 10 were used in households viz. agriculture tools, brooms and furniture making, 5 were used in both medicine and materialistic and 5 in various rituals.

Medicinal Uses

The tribe had sound knowledge of medicinal use of plant, obtained from various parts viz. root, bark, wood, leaves, seed, latex, flower etc. Among all the medicinal uses, eight were extracted from roots and barks followed by six were extracted from leaves and four from stems. The list of plant used as medicine is summarized in table 1, along with, their traditional uses.

The Tharu tribe mostly inhabit in the forest fringe or in remote areas, where professional healthcare workers are not available; therefore they are still relying on Vaidya and Hakeem. The Tharu tribe in also living interior location was allopathic medicine and trained doctors are not easily availability resulting the Tharu is still dependent on the traditional plant based medicine for various disease. However the situation of these remote area are changing very fast, the bullock carts have been completely replaced by tractor and country made engine cart and the busses are connecting these remote areas with urban areas. The traditional manual methods of irrigation are being replaced by motor tube well. Further to satisfy their needs the young generation of Tharu tribe in migrating to metropolitan cities which is resulting a rapid erosion of their traditional ethno medicine practice.

Hut Construction

The Tarai region of Uttar Pradesh is enriched of dense tropical moist deciduous forest. The availability of commercial/standard timber trees like saal, Teak, Shishum, Jamun, Arjun etc. in

abundance. They full fill their entire requirement from local forest. The common and traditional uses of timber species for Hut, Agricultural implements and furniture are as follows-

Pillars: The wood of *Shorea robusta* (Saal) and *Tectona grandis* (Teak) is used for making pillars for support to roof (Wooden huts and mud houses).

Table 1: List of Plant species used by Tharu Tribe in their daily life

| S. N. | Plant name/Family in Parenthesis | Local Name | Uses |
|-------|---|------------|---|
| 1 | <i>Alstonia scholaris</i> (L.) R.Br. (Apocynaceae) | Chitvan | Decoction of bark is used to cure fever, Obesity & Cholesterol |
| 2 | <i>Gossypium arborium</i> L. (Malvaceae) | Karbas | The leaves are used in fever, pneumonia, cough, cold |
| 4 | <i>Terminalia arjuna</i> (Roxb. Ex DC) Wight. & Arn. (Combretaceae) | Arjun | Decoction of bark used in hypertension and high blood pressure. |
| 5 | <i>Crinum asiaticum</i> L. (Amaryllidaceae) | Nagdamni | This herb is used to stop abnormal bleeding from the body part such as in piles, periods and colitis. |
| 6 | <i>Swertia chirayita</i> (Roxb.) H.Karst (Gentianaceae) | Chiraitha | The herbal preparation of stem and leaves are used in treatment of leaver, urine and hypertension. |
| 7 | <i>Pongamia pinnata</i> (L.) Pierre (Fabaceae) | Karanja | The poultice of leaves and bark is used to cure skin disorders. |
| 8 | <i>Azadirachta indica</i> A. Juss. (Meliaceae) | Neem | The leaves are used fever, diabetes, gum disease (gingivitis), and liver problems. Twigs are used as tooth brush and bark in wound healing. |
| 9 | <i>Abutilon indicum</i> (L.) Sweet. (Malvaceae) | Jigna | The leaves and roots are used to curing fever. |
| 10 | <i>Ficus benghalensis</i> L. (Moraceae) | Bargad | The wood ash of Bargad tree is used with coconut oil to treat burn parts of the body. |
| 11 | <i>Cissus quadrangularis</i> L. (Vitaceae) | Hathjodwa | The herbal preparation of complete plant is used to cure fractures of the bones and indigestion. |
| 12 | <i>Datura stramonium</i> L (Solanaceae) | Dhatura | The fruit after half burn is used to treat toothache, and the juice of fruit is applied as anti-dandruff. |
| 13 | <i>Calotropis procera</i> (Aiton) W.T.Aiton. (Apocynaceae) | Madar | Apply ghee on the leaves and put on fire for a few seconds and then use to cure infection or pus in ear. |
| 14 | <i>Ipomoea carnea</i> Jacq. (Convolvulaceae) | Behaya | Milky juice of plant is used to treat Leucoderma |
| 15 | <i>Cuscuta cassyoides</i> Nees Ex Engelm (Convolvulaceae) | Amarbaur | The decoction of the amarbaur used as a liver cleaner and to cure hair fall. |
| 16 | <i>Bambusa balcooa</i> Roxb. (Poaceae) | Bans | Decoction of bans shoot is taken orally with honey for healing of cut wounds |

| | | | |
|----|--|---------------|---|
| 17 | <i>Pueraria tuberosa</i> (Roaxb.ex Wild.) DC. (Fabaceae) | Vidarikan d | The underground tuber is given a weak person for energy and to cure stomachache. |
| 18 | <i>Helmintho stachyszeylanica</i> (L.) Hook. (Ophioglossaceae) | Kamraj | The underground tuber is given in weakness for energy and leaves are used as a vegetable. |
| 19 | <i>Cucumis callosus</i> (Rottb.) Cogn.(Cucurbitaceae) | Pehta | The ripen fruits of pehta gives relief in the common cold and used as an immunity booster. |
| 20 | <i>Benincasa hispida</i> (Thunb.) Cogn. (Cucurbitaceae) | Petha | The fruit are used cure ulcers and improves digestion. |
| 21 | <i>Andrographis paniculata</i> (Burm.f) Nees (Acanthaceae) | Kalp Nath | The herbal preparation is use in a fever, ulcer, diabetes and colic |
| 22 | <i>Parthenium hysterophorus</i> L. (Asteraceae) | Gajarghas | Decoction of plant is use to cure diarrhea and fever |
| 23 | <i>Curcuma amada</i> Roxb. (Zingiberaceae) | Hardi | Rhizome after crushing is given to treat a stomach pain and fever |
| 24 | <i>Helicteres isora</i> L. (Malvaceae) | Bhendu | Herbal preparation is used in treating of abdominal pain and diarrhoea. |
| 25 | <i>Glycosmis pentaphylla</i> (Retz.) DC. (Rutaceae) | Van Nimbu | The fruits are used to cure cough, jaundice and fever |
| 26 | <i>Butea monosperma</i> (L.) Kuntze. (Fabaceae) | Dhak | Flowers are used to cure sun stroke and it is used as sexual problems |
| 27 | <i>Ziziphus moritiana</i> L. (Rahmnaceae) | Ber | The decoction of root is used as anti-dandruff by the women |
| 28 | <i>Xanthium strumarium</i> L. (Asteraceae) | Chotadhat ura | Decoction of the seeds is given to cure bladder complains and the root decoction in abortion |
| 29 | <i>Streblus asper</i> Lour. (moraceae) | Khoi | Decoction of bark is given in leprosy and twigs are used as toothbrush to relief from toothache |
| 30 | <i>Mimosa pudica</i> L. (Fabaceae) | Chuimui | The poultice of roots is used to stop bleeding |

Thatch frames: The wood of P (Padar) and *Mallotus philippensis* (Rohini) is used for making frames of thatches and the whole plant of *Eulaliopsis binata* (khar), *Sacchrum munja* (Munj) and *Saccharum spontanium* (Kans) for filling material in thatches.

Roof: The ballies (round wood) of *Shorea robusta* (Sal) and *Tectona grandis* (Teak) is used for supporting the roof.

Tying material: *Calamus tenuis* (Canes) and *Dendrocalamus strictus* (bamboo) twigs are used

for tying thatches and fuel wood bundles. Door - Shisham and Sakhu

Agriculture Implements

Plough: This has three parts handle, shaft and share. Wood of Mango (*Mangifera indica*) is used for making handle whereas the wood of *Shorea robusta* (Saal) is used for making shaft/Harsh and *A. catechu* (Khair) and Panan for share/Faal.

Leveler: It is also known as Pata, it is made by Bargad (*Ficus benghalensis*) and Babool (*Acacia nilotica*) are used.

Faruhi/fawda: It is made by *Tectona grandis* (Teak) and *Mallotus philippensis* (Rohini). Livestock implement like Nada is made by *Shorea robusta* (Sal)

Transport-

Carts: The parts of bullock cart is made by various types of woods

Wheel: Shisham (*Delbergia sissoo*)

Axle: Dhau (*Anogeissus latifolia*)

Takhat: It is made by *Delbergia sissoo*

Chaukhat (Door Frame): *Shorea robusta*

Juaa: It is made by *Lagestomia parviflora* and *Shorea robusta*

Baju: It is made by *Delbergia sissoo* and Kajauta and *Tectona grandis*

Mohra: *Shorea robusta* and *Tectona grandis*

Furniture

Latter: It is made by sakhu (*Shorea robusta*) and bamboo

Stool: It is made by *Delbergia sissoo*

Cot/takhat: It is made by Bamboo, *Delbergia sissoo* and *Tectona grandis*

Anta/watch tower: The anta is made in agriculture field for protection of crops by wild animal; it is made by *Shorea robusta* and *Tectona grandis*

Rituals

Marriage pillar /khamma: It is made by *Shorea robusta* and *Delbergia sissoo*, it is used in marriage ceremony

Worship: The tharu tribe are used a wood of mango dhoop, palash, lachichra, anjir, bel, pakad, chandan, bargad.

Funeral ceremony: In this ceremony every person of tharu throws five- five pieces of mango and dhoop wood before burn of dead body.



Fig. 1: A. Interviewing an elderly Tharu man, B. *Andrographis paniculata* (Kalpnath), C. *Datura stramonium* (Dhatura), D. *Ipomoea carnea* (Behaya), E. *Litsea glutinosa* (Maida), F. *Streblus asper* (Khoi), G. Anta/watch tower, H. Nada, I. Brooms.

Conclusion

In this study an attempt was made to document the ethno-botanical knowledge of important plant being used by the Tharu tribe. However, the above mentioned ethno-medicinal uses of plants need pharmacognostical validation. The indigenous knowledge system of Tharu is still very rich hence, it is necessary to document the traditional knowledge of useful plants and their various uses before it is lost forever from the community. This preliminary data pertaining to ethno-medicine are new that provide lead for further scientific research for the development of modern medicine. In the study it was found that due to fast urbanization their traditional knowledge and practice are also eroding very fast therefore, there

is an urgent need of a detail survey at pilot scale for better understanding of the situation. Further, the Government should make separate policies or take initiative to protect and conserve their traditional values.

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References

- Acharya, R., & Acharya, K. P. (2009). Ethnobotanical study of medicinal plants used by the Tharu community of Parroha VDC Rupandeshi district, Nepal. *Scientific World* 7(7), 80-84.
- Census (2011), Government of India- <https://censusindia.gov.in/2011-Common/Archive.html>
- Dangol D.R, Gurung G.B. (1981). Ethnobotany of the Tharu tribe of Chitwan district Nepal. *Journal of Pharmacognosy*, 29(3):203-209.
- Duthie, J.F., (1911). Flora of upper Gangatic plain and of the adjacent Siwalic and Sub-Himalayan Tract. BSI, Calcutta, Vol. 2
- Kumar, A., Pandey V.C. & Tiwari. D.D. (2012). Documentation and determination of consensus about phytotherapeutic veterinary practices among the Tharu tribal community of Uttar Pradesh, India. *Tropical Animal Health Production* 44:863–872
- Kumar, H. Lal, S. B. and Wani, A. (2017). Correlation Studies for Morphological and Biomass Traits in Half Sib Families of Terminalia Arjuna (L.), *Curr. World Environ.*, Vol. 12(2), 345-354
- Kumar, Akhilesh, Tewari, DD, and Tewari JP (2006) Ethnomedicinal knowledge among Tharu tribe of Devipatan division. *Indian J. Traditional Knowledge* 5(3): 310-313.
- Kumari, Ragini, Kumari, Savita. Tripathi V.K and Kumar, Hemant (2020). Socio-economic and demographic status of rural areas of district Gopalganj, North Bihar. *Bull. Env. Pharmacol. Life Sci.*, 9[11]: 15-19
- Kumar, R., M.K. Singh & K.A. Bharati. (2013). Ethnobotany of Tharus of Dudhwa National Park, India. *Mintage Journal of Pharmaceutical & Medicinal Sciences* 2(1):6–11
- Maheshwari, J.K., K.K. Singh & S. Saha. (1980). Ethnobotany uses of plants by the Tharus of Kheri district, UP. *Bull-letin of Medico-ethnobotany Research* 1:318–337.
- Maheshwari, J.K., K.K. Singh & S. Saha. (1981). The Ethnobotany of the Tharus of Kheri District Uttar Pradesh. *National Botanical Research Institute, Lucknow, India.*
- Manandhar, N. P. (1985). Ethnobotanical notes on certain medicinal plants used by Tharus of Dang-Deukhuri district, Nepal. *International Journal of Crude Drug Research*, 23: 153-159.
- Mishra, Kalpana, Kumar, Hemant and Mishra, N. M. (2021). Ethno-botanical study of Medicinal Plants in Urban Spaces of city Prayagraj-India, *Res J. Chem. Environ. Sci.* 9 [6]: 10-16
- Saini, D.C. (1996). Ethnobotany of Tharus of Basti district Uttar Pradesh. *Journal of*

- Economic and Taxonomic Botany* 12:138–153.
- Shukla, S.C. (1991) A detailed study on some new aspects of flora of Faizabad. Ph. D. Thesis. *Dr. R M L Avadh University, Faizabad*
- Singh, K.K. and Maheshwari, J.K. (1989). Traditional herbal remedies among the Tharus of Baharaich district, U.P., India, *J. Ethnobotany*, 1: 51-56.
- Singh, S. (2017). Ethnomedicines used by KochilaTharu tribe living near the Bara district of Nepal. *World Journal of Pharmaceutical Research*, 6(14), 1267-1283.
- Thapa, C.B. (2020). Ethnomedicinal practices by Tharu ethnic community in Rupandehi and Nawalparasi districts, western Nepal. *Journal of Institute of Science and Technology*, 25 (2): 93-106.
- Verma, S.C. (2011). The struggling Tharu youth study of awareness among the Tharu tribe of India. *Journal of Anthropology* 7(2):213

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