

Original Research Article

<https://doi.org/10.20546/ijemas.2021.1003.xx>

Traditional Wisdom of Mishmi tribe: Converting Himalayan Nettle plant into Ethnic Wear

Khoisnam Naveen^{1*}, Soibam Peter Singh¹, Manish Kanwat¹, Ch. Bidyabati Chanu²,
S. Senjam Jinus³, Keshab Ch. Gogoi¹ and H. Kalita⁴

¹KVK Anjaw, ICAR-AP Centre, Basar, Arunachal Pradesh, India

²College of Home Science, AAU, Jorhat, India

³FEEDS, Group of Institution, College of Horticulture, Hengbung, Kangpokpi, Manipur, India

⁴ICAR-AP Centre, Basar, Arunachal Pradesh, India

**Corresponding author*

ABSTRACT

Himalayan Giant Nettle (*Girardinia diversifolia* (Link) Friis) is an eco-friendly plant from wild forest which the tribal population of Anjaw namely Digaru and Mizu Mishmi have been using as a fibre (Khujalli patta/ Chuaam/Tatsa) for weaving different items. This study was conducted in Hayuliang, Metengliang and Goiliang Circle of Anjaw district, Arunachal Pradesh. The data was collected from 40 male and female respondents by using a self-structured questionnaire of age group (20-50 years). Information were collected regarding aboriginal knowledge of the processing and uses of fibre. The investigation reveal that whole processes are eco-friendly and have been in practiced from time immemorial providing multiple benefits to rural households. These plants are widely available in local vicinity and used for food, feed, fibre as well as source of income. Himalayan nettle plants can be a good alternate source of natural eco-friendly and sustainable fibre for used. The fibre and the products can be further promoted to increase market base for obtaining higher income level.

Keywords

Anjaw, Chuaam, Tatsa, Traditional, Mishmi tribe, Fibre, Processing and Weaving

Article Info

Accepted:

xx February 2021

Available Online:

xx March 2021

Introduction

North east India is famous for its rich biodiversity as well as indigenous traditional knowledge. More than 200 indigenous ethnic

and tribal groups with different culture, traditions, ethnicity and linguistically have settled in the north-eastern region¹. From time immemorial, indigenous traditional knowledge of using wild plants from forest has long been

a source of livelihood sustainability of tribal population. Wild forest products provide the requirements of food, fodder, fibre, medicines, timber and day to day activities.²⁻⁶. Traditional ecological knowledge is not unique to any culture but exists all over the world, independent of ethnicity. It is born of long intimacy and attentiveness to a surrounding area and can arise wherever people are materially and spiritually integrated with their landscape⁷.

The indigenous traditional knowledge of using fibre from wild forest produce is practised by different tribe namely Mao tribe of Manipur, by the indigenous people of outer Siraj area of Himachal Pradesh, Van Panchayat area of the Uttarakhand region for different cultural events and day to day life activities. They are used to make a wide range of traditional products ranging from textiles, ropes, nets and mats⁸⁻¹³. The Mishmi tribe of Anjaw district has their own indigenous knowledge of processing and weaving with wild forest plants. They have been using wild Himalayan nettle plants for making woven household items for different used.

Himalayan nettle plants (*Girardinia diversifolia*) Family Urticaceae commonly known as the khujalli patta or tatsa in Digaru and chuaam in Mizo language is a herb or under shrub, robust, suffruticose, with stinging hairs. Stem are of 0.5-2 m high, fibrous. Leaves are broadly ovate, often palmately lobed, acuminate at apex, cordate or truncate at base; stipules forked at the tip. Flowers are sessile, small, pale green, unisexual, crowded. Male flowers in much branched paniculate spikes, perianth 4-parted; Female flowers in short, thick, densely bristly spikes; perianth tubular, 3-lobed. Achenes ovoid, brown-black. The plant is found abundantly in open forest land, river sides, roadside and moist habitat, along streams, disturbed places, near villages; between 500-

2600 m altitudes. Flowering to fruiting starts from July to October.¹⁴

The treasure of indigenous processing method developed by ethnic Mishmi tribes of Anjaw district for utilizing nettle plants requires proper documentation. Many ethno-botanical studies have been carried out in Arunachal Pradesh. However, the local traditional knowledge on processing and weaving with wild fibre, in this remote area of Anjaw district have not been explored, which deserves a thorough investigation¹⁵⁻¹⁸. The present study is an attempt in this direction, to explore the traditional knowledge of processing of wild nettle plants as well as to document the indigenous knowledge, and procedures related to preparation, pre-treatments weaving and use of the fibre.

Study area

Among the states of Arunachal Pradesh, Anjaw district of Arunachal Pradesh is a newly established carved out of Lohit district with an area of an area of 7098.99 Km² and lies between 22⁰ – 29⁰ N Latitude and between 95⁰15' to 97⁰24' E Longitude. The district borders internationally with China and Myanmar on the north and eastern side and intra state borders with Lohit and Lower Dibang valley on the west and Changlang on the southern side. The inhabitants of the district mainly comprise of three Tribe viz Digaru Mishmi, Mizo Mishmi and The Meyor Tribe. The annual average rainfall ranges from 1250 mm to 4050 mm. The district is characterized by rainy summer and dry winter, typical of southwest monsoon. The annual average temperature is below 23⁰ C and relative humidity ranges from 62% in January to 90% in July. Soil is of medium texture with sandy loam to loamy sand type. The soil pH ranges from nearly neutral to acidic in nature. The state is blessed with all the major agro-climatic conditions from sub-tropical to

temperate and alpine zone prevailing in the district. The district is considered to be a part of bio diversity hot spot. Agriculture is the main occupation of the Mishmi and Meyor Tribe¹⁹. Because of the interiorness of the most location local people rely on the forests produces for their day to day requirements.

Materials and Methods

To better understand the processing of traditional weaving using Himalayan nettle and the importance of Himalayan nettle and its use in Mishmi Life. A study was conducted in the year 2016-2017.

The population of the study consisted of 40 respondents (15 male and 25 female) with an age range of 20-50 years who were residing in the three circles of Anjaw district *viz.* Hayuliang, Metengliang and Goiliang circle of Anjaw District of Arunachal Pradesh, India.

To meet the objectives of the study, a semi structured interview schedule was constructed to collect the demographic characteristics of the respondents and ethno-botanical information of Himalayan nettle plant (Tatsa/Chuuamm) with reference to time of collection, methods of collection, processes of treatment and making yarn, spinning and weaving of fibre into different products, and use of Chuaam/Tatsa and its marketing and economic value were collected.

Results and Discussion

Collection of Himalayan Giant Nettle plant

The climatic conditions of Anjaw district favours luxuriant growth of the nettle plants and is found abundantly present in the nearby forest area. It is mostly collected in the summer months of July to September as it is easy to extract the fibre from the bark of the plant. During the survey it was found that 90

percent collection of the plants is done mostly by female member and 10 percentage male also help in the collection.

Fibre extraction and processing

The extraction of fibre is done mechanically with knife or bare hand. Peeling of the fibre is usually done by the female member of the family. The collected plants are first stripped off from their bark with knife or bare hands and then it is peeled into smaller pieces for its easy drying. The green leaves are used as feeds for animal. The respondents were divided in the methods of processing of Chuaam/Tatsa/ Khujalli patta. 68 percent respondents prefer drying of the bark first and then boiling for smoothening of the bark fibre.

While the rest of the respondents start processing from the day after harvest. For direct processing, the fibre is boiled with ash for 3 hrs. The ash quantity depends on the amount of fibre to be processed. The amount of ash depends on the quantity of fibre to be processed.

Usually 5 to 7 kg of ash (Naming baya gu) is used for boiling the fibre for smoothening. None of the respondents have no knowledge regarding any chemical agents for softening the fibre other than ash. The boiled fibre is then washed with fresh running water with regular beating with wooden stick or mallet to loosen the fibre. The process is repeated for 4-5 times to get good smooth fibre. Afterwards the fibre is then sun dried for 2-3 days or shade dried depending on the weather. Drying usually takes one day in case of clear sunny sky whereas in rainy periods when dried in shade it takes about 2-3 days for complete drying of the fibre. When it is completely dried the colour of the fibre changes to whitish colour. The 78 percent respondents usually stored the dried fibre and used for spinning during the rainy periods and free time.

Spinning and Weaving

Processing of the fibre is performed by the female member of the household. The dried white fibre is separated manually into thin white thread for weaving. Spinning of the thread is done with locally made hand spinning which has a wooden base and fixed iron rod fitted to it (Tat sa tou Digaru). The fitness of the fibre as well as strength depends on the skill of the spinner. Spinning of the fibre tighten the fibre. After spinning the white thread is then rolled into balls for weaving (Kitkun Mizu/Nyateing in Digaru). The durability of the fibre reduce considerably when the fibre is wet. Dried fibre can be keep for a longer duration without getting damaged. For making one coat it takes about 10 bundle of dried fibre for making into white thread. Cloth is woven with a local made back strap handloom locally known as Tat Tui in Digaru. The amount of cloth a person can weave each day depends on the skill of the weaver. The muffler and scarf as per the skill of the weaver can weave in a day.

Marketing

Marketing Chuaam/ Tatsa products like scarf, muffler, coat and other items differs from household to household. Most of the demand is met through locally. There is also demand of the products from neighbouring district Lohit. Travellers and other visitors visiting the district also bought Chuaam/ Tatsa products from the local markets as souvenir. Even though, demand of the local product is fast decreasing among the younger generation due to urbanization and change of preference to trendy items but, the elders and intellectually known persons about nettle plants still demands its products for used. Income from the weaving of nettle plants usually fetch from 20,000 to 25,000/- per annum. The price of muffler fetches about Rs 3000/-per coat in the local market.

Tribal populations of Anjaw still depends on the forest produce for its livelihood requirements. They are expertise in utilizing different plants both wild as well as cultivated for their livelihood. The people living around the forest area have developed their own indigenous knowledge of utilising *Girardinia diversifolia* in a multi utility manner for different household use of feed, fodder and as fibre. In spite of hard laborious work of extracting fibre Mishmi tribe of Anjaw of district still maintain their age old traditionally knowledge of processing and use of Tatsa/ chuaam/ khujalli patta fibre for weaving. Remoteness and lack of knowledge regarding improved technology, a major reason behind compelling farmers to rely on their age processing methods, local spinning and weaving tools. The climatic conditions for growth of chuaam/ tatsa/ khujalli patta plants is quite favourable in Anjaw district as a result there is abundance availability of plants. As a result, the villager have no interest for domesticating the plant. Extraction of fibre differs depending on the requirements of bast fibre from chuaam/tatsa. Most of the villagers are busy with their household activities rendering little time for immediate bio-processing of the fibre. 85 percent of the respondents prefer drying and retting later as bast fibre can be keep for longer duration without damaged. The dried fibre are retted later on during free periods. Similarly the fibre are also dried and retted in Uttarkhand¹¹. The tribal people rely on the natural resources available like ash for bio processing treatment of the fibre. They used wood ash from burning woods as agent for easy boiling, washing as well as softening of the fibre. As per the survey, none of the respondents have no knowledge about the use of any other chemical agents for treating the fibre. As the indigenous bio-processing clearly shows that pre-treatments of the fibre involves no chemicals, it can best say the processes are eco-friendly and sustainable.

Fig.1



Fig.2

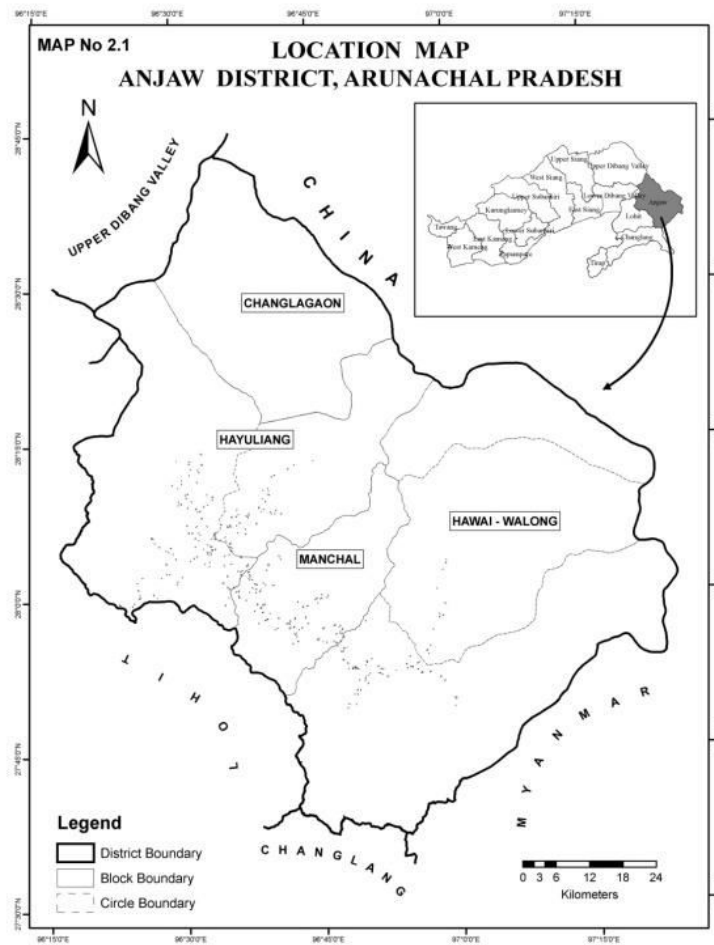


Fig.3 Hand Spinning (tat satou)



Fig.4 Local handloom(Tat Tui)



Fig.5 Thread Ball Kitkun Mizu/ Nyateing



Fig Processing and weaving of local cloth from weeds plants

Fig.4 Collection of weeds from the jungle, **Fig.5** Peeling of the skin from the bark of the weeds plants, **Fig.6** Separating of the skin into smaller piece, **Fig.7** Binding of the skin of the weeds, **Fig.8** Boiling of the skin fibre along with ash, **Fig.9** washing of the boiled fibre skin after boiling, **Fig.10** Beating the fibre to make it loosen, **Fig.11** Drying of the fibres, **Fig.12** Dried fibre, **Fig.13** Separating of the fibre into thread for weaving cloth, **Fig.14** Making Thread ball for weaving, **Fig.15** The fibre are put into loom for weaving, **Fig.16** Final product after weaving from weeds fibre chuwam (Mizu)





Spinning and weaving is usually done during rainy days or free time. Moreover, during rainy days female member of the family gets ample time from normal household duties to carry out spinning and weaving activities. The market of Chuaam/Tatsa products is still at a locality level. The elder members of the community knowing its properties still prefer products from Chuaam/Tatsa as they are light, coarse and warmer in winter. Due to lack of any government initiatives for popularising and marketing of the products, slowly and slowly the demand for the products is decreasing with the younger generation.

This research highlights that Himalayan Nettle plants is eco-friendly fibre. Commercial production of natural fibre and synthetic fibre involves high input cost of production, decreasing and degradation of natural resources. As such Himalayan nettle plant can a good alternate source of natural eco-friendly and sustainable fibre. Moreover, Mishmi tribe of Anjaw of district are still maintaining their age old traditionally knowledge of processing and use of wild Tatsa/ Chuaam/ Khujalli patta fibre for weaving.

However, due to rapid urbanization and development have led to the slowly decreasing and disappearing of the local indigenous knowledge. It is high time to conserve and preserve indigenous knowledge from extinction. There is need for the government to popularised, and promote the processing and weaving of Tatsa/Chuaam products for

increasing the market base and help earn more income generation. Government intervention with schemes can turn the local indigenous knowledge into money earning enterprises for the local population

Acknowledgement

The author would like to thanks the Mishmi Society of Hayuliang, Barfu, Tafrialiang, Railiang, Nilaing and Metengliang for extending all help in conducting the survey, providing valuable information regarding processing and weaving of chuaam/tatsa/Khujalli patta The help received from them is dully acknowledged. Author would like to Director, ICAR, for providing all the necessary help and guidance for conducting the survey. (PMFS code RC/PME/Pub/2018/F-1/55)

References

- Chatterjee S, Saikai A, Dutta, P & Ghosh D, Worah, S, Review of Bio diversity in North East India, Background paper, WWF-India, 2006.
- Swain S & Mohapatra G C, Multiple usages of forest trees by the tribes of Kalahandi District, Orissa, India. *International Journal of Biodiversity and Conservation*.5(6) (2013) 333-341.
- Reddy K N, Pattanaik C, Reddy C S, Murthy E N & V S Raju, Plants used in traditional handicrafts in North Eastern Andhra Pradesh. *Indian Journal of*

- Traditional Knowledge*. 7(1) (2008) 162-165.
- Mohanty N, Das P K & Panda T, Use of plant diversity in household and rituals by tribal people of Dhenkanal district, Odisha, India *Journal of Applied Pharmaceutical Science* 01 (04) (2011) 79-82.
- Saikia A and Borah M P, Sarmah R & Kutum A, Non-Timber Forest Products (NTFPS) and their Role in Livelihood Economy of the Tribal People in Upper Brahmaputra Valley, Assam, India. *Research & Reviews: Journal of Botanical Sciences*. 6 (1) (2017) 24-28.
- Padal S B, Chandrasekhar P & Vijakumar Y, Traditional Uses Of Plants By The Tribal Communities Of Salugu Panchayati Of Paderu Mandalam, Visakhapatnam, District, Andhra Pradesh, India. *International Journal of Computational Engineering Research*, 03(5) (2013) 98-103.
- Kimmerer R W, Weaving Traditional Ecological Knowledge into Biological Education: A Call to Action. *BioScience* 52 (5)(2002)432-438.
- Anonymous, Tribal hand woven fabrics of Manipur-Part 1 -By: Mutua Bahadur. http://e-pao.net/epSubPageExtractor.asp?src=manipur.Arts_and_Culture.Mutua_Bahadur_Art_Collection.Tribal_hand_woven_fabrics_of_Manipur_part_1
- Lokho K & Narasimhan D, Ethnobotany of Mao-Naga Tribe of Manipur, India. *Pleione* 7(2) (2013) 314 - 324.
- Radhakrishnan S & Preeti A, Development of Fabric from *Girardinadiversifolia* Stem Fibres and its Blends, *International Journal of Innovative Research in Science, Engineering and Technology*, 4(11) (2015) 10499-10506.
- Bhardwaj A, Rani S & Rana J C, Traditional used common fibre plants in outer Siraj area, Himachal Pradesh. *Indian Journal Of natural Products and Resources*, 5(2) (2014)190-194.
- Debajit M & Tiwari S C, Natural dye-yielding plants and indigenous knowledge on dye preparation in Arunachal Pradesh, northeast India, *Current science*, 88 (9) (2005)1474-1480.
- SinghR K, Singh A, Tag H & Adi community, Traditional skill among the Adi tribes of Arunachal Pradesh, *Indian Journal of Traditional Knowledge* 7(1)(2008) 27-36,
- Chandrasekar K, Bhatt I D, Rawal R S, Nandi S K, Pitamber & Dhyani P, Promising fibre-yielding plants of the Indian Himalayan Region. G.B. Pant Institute of Himalayan Environment & Development Kosi- Katarmal, Almora-263 643, Uttarakhand, 2010.
- Khongsai M, Saikia S P & Kayang H, Ethnomedicinal plants used by different tribes of Arunachal Pradesh, *Indian Journal Of Traditional Knowledge*, 10(3) (2011) 541-546.
- Gibji N, Ringu N & Dai N O, Ethnomedicinal Knowledge among the Adi Tribes of Lower Dibang Valley of Arunachal Pradesh, India, *International Research Journal of Pharmacy*, 3(6) (2012) 223-229.
- Shankar R & Rawat M S, Medicinal plants used in traditional medicine in Lohit and Dibang valley districts of Arunachal Pradesh, *Indian Journal of Traditional Knowledge* 7(2) 2008, 288-295.
- Perme N, Choudhary S N, Choudhary R, Natung T & De B, Medicinal Plants in Traditional Use at Arunachal Pradesh, India, *International Journal of Phytopharmacy*,5(5) (2015) 86-98.
- Anonymous, (2012-13).C-DAP, Dept. of Agriculture govt of Arunachal Pradesh

How to cite this article:

Khoisnam Naveen, Soibam Peter Singh, Manish Kanwat, Ch. Bidyabati Chanu, S. Senjam Jinus, Keshab Ch. Gogoi and Kalita, H. 2021. Traditional Wisdom of Mishmi tribe: Converting Himalayan Nettle plant into Ethnic Wear. *Int.J.Curr.Microbiol.App.Sci.* 10(03): xx-xx. doi: <https://doi.org/10.20546/ijcmas.2021.1003.xx>