



TRADITIONAL ETHNOMEDICINAL KNOWLEDGE AND PRACTICES OF MOYON NAGA TRIBE OF MANIPUR

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ABSTRACT

The present paper deals with the observations on ethnomedicinal uses of wild plants by the Moyon tribal people of villages from the 17 sites of Moyon inhabiting areas of Chandel and Tengnoupal districts of Manipur were critically analysed. Data were collected by interviewing Moyon medicine men and knowledgeable persons with the help of semi-structured and open-ended questionnaire. Altogether 85 medicinal plants belonging to 34 families were documented across 28 ailments, which are used by the Moyon people in formulation of 85 ethnomedicinal preparations for curing 28 types of diseases. Highest fidelity level value (100%) has been recorded for twelve plants. Leaf extract, etc. The family Asteraceae and Poaceae were the most represented with 11 plant species each and followed by Amaranthaceae with 8 plant species. The most used plant parts were found to be leaves with 45%, whole plant with 24%, shoot with 10%, rhizome with 5%, root 4%, stem and seed 3% each, bark and flower 2% each, grain and petiole 1% each. Therefore, an urgent call for extensive research and documentation on ethnomedicinal perspectives of the *Moyon-Naga* tribe which is the need of the hour.

Keywords: *Moyon* Naga Tribe, Traditional Ethnomedicinal knowledge, Manipur.

INTRODUCTION

Moyon Naga tribe is one of the ethnic communities of Manipur, belong to the Indo-Mongoloid group of races and speaks the Tibeto-Burman, a branch of the Sino-Tibetan group of language. *Moyon* is one of the recognized tribes of Manipur as per the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976, (No. 108 of 1976, dated the 18th September, 1976). The tribe is one of the recognized tribes of Manipur with distinct identity, rich traditions and cultural heritages passed down from generation to generation. The *Moyon* believed to have originated from 'Khur' or 'hole in the earth' somewhere in ancient Mongolia. *Moyon* legends and folklores recounted that, the mouth of the cave was watch over by a man-eating tiger, which hunted and killed on anyone trying to come out of the cave. The legend asserts that *Mirang*, the bravest and the best archer of all killed the carnivore with an arrow and they came out to this World. The people then settled at *Sijur* and later on moved towards the south passing through different countries and finally made their settlement in Manipur. 'Bujuur' is the original name of the tribe and the term *Moyon* was given by *Poreiton* as clearly indicated in *Ningthourol Lambuba* (Bhogeswar Singh, 1966).

Donald Kosha studied about the linguistics of *Moyon language* and mentioned that the thesis entitled "A descriptive grammar of *Moyon*" is the study of *Moyon* language and preparation of a descriptive grammar of this language. *Moyon* language is a Tibeto- Burman Language spoken by the people of *Moyon* tribe. It is one of the thirty-three tribal dialects of Manipur recognized by the Government of India. They are concentrated in the south

eastern part of Manipur, particularly in the Chandel and Tengnoupal Districts and some are in Myanmar (Burma) near the border area of Manipur. Regarding its placement, Linguists have different opinions. Pemberton (1966) placed the *Moyon* under Naga group, while Austin Hale (trends in Linguistics, Research on Tibeto-Burman language, P. 190) reported *Moyons* are Anals, one of the old *Kuki* groups, Marrison (1967) also placed under old *Kuki* groups. T.C. Hudson (1911) remarked that at Tengnoupal, there are four tribes of Naga namely, *Maring*, *Anal*, *Lamkang* and *Moyon – Monshang*.

Today, the *Moyon* lives at Kapaam (Komlathabi) village, Nungthar (Penaching) village, Tungphae (Heigrutampak) Village, Khukthar village, Mangkang village, Khurfhuwdam village, Kuurkam village, Khuwringkhaw village, Sinadam village, Ringkum village, Thangkin village, Chumthar village, Khungjuur village, Mitong village, Mitong Rashangkhar Village, Laarfuw village, and *Moyon Khullen* village in Manipur, India and a handful of the *Moyon* lives at Lamri village and Napalun in Myanmar (near Tamu). Compared to other tribes *Moyon* tribes are very thinly populated. According to the Census of India 2011, the total population of the *Moyon* is 2516 with 581 households. The male population is 1,172 and female is 1,344. Sex ratio is 1177, child sex ratio is 975. Literacy rate is 84% with 88.5 for male and 80.2 for female. Their neighbouring tribes are *Anal*, *Maring*, *Kuki*, *Monshang*, *Tarao*, *Aimol*, *Lamkang* and *Chothe*.

For the *Bujuur (Moyon)*, a historical construction was carried out by Chara (2018) and identity in the ever-changing modern period; and being one of the least known communities and largely undocumented. The article provides, a glimpse of the community, the oral history and other historical events that shaped the identity of the present. Still there are many portions are lagging behind in the course of the complete picture of *Moyon-Naga* tribe of Manipur, so as to make at least a researcher could be able to explore Chara (2018).

The *Moyon* depends on agriculture right from the olden days. Rice is the staple food and greatly enjoyed 'steamed rice', the best speciality of the *Moyon* tribe. Jhum cultivation is practice in the hilly area and the wet-field plantation by the foot-hill dwellers. Hunting and trap setting is another favourite of the *Moyons*. They commonly used bow, arrows and spears while hunting. The other main weapons of the tribe are *Naga dao* and catapult in the form of bow. Fishing is another preferred past time. Men are expert in creating various designed items from cane and bamboo used for different purposes like baskets, mat, etc.

The *Moyons* are fond of merry making and relish good food as indicated in the form of festivals. They love bright colours as can be seen from their traditional shawls and other clothes woven with different patterns by looms. Traditional dresses and ornaments made of shells and bones of animals and plants products were worn and come out for dance during festivals. The *Moyons* have a very close bond among them, united by their unique culture and tradition. The *Moyons* had a very high sense of democracy that is clearly visible through the system of village administration. The Hereditary system was never existed since time immemorial, which can be make out from the folklores and songs. The ablest and the bravest person was made the '*Iruwng*' or the chief by a conscientious choice. The other member of the village council was also appointed as per their ability, one from each of the nine clans. There was no uniform or distinct form of worship among the *Moyons* in the ancient times. The '*Ithiimpa*' or the medicine man of the village performed sacrifices for any religious function or he would sacrifice to ward away evil spirits.

Not much is known except a very few publications have contributed on ethnobotanical studies from the Chandel district of Manipur. In recent time, Singh (1987) reported 523 ethno-botanically important plant species from Tengnoupal district, Manipur. Deb (2011) reported 9 species for treating various ailments by native practitioners in Chandel district. Yuhlung *et al.* (2014) reported 46 plant species as ethno-medicine used by Chothe. Singh *et al.* (2015) recorded 95 plant species belonging to 85 genera and 46 families for treatment of various ailments used by the Chothe tribe. Suresh *et al.* (2016) reported 26 plants which have various applications in treating microbial diseases. Sujata *et al.* (2016) reported a total of 68 wild edible vegetables belonging to 42 families were documented which are being used by indigenous communities for nutritive and therapeutic purposes. Yuhlung *et al.* (2016) reported 39 indigenous medicinal plants used by the Maring in the treatment of about 34 ailments and diseases. Nongmaithem *et al.* (2015, 2018) reported a total of 144 plant species belonging to 66 families which is used by the tribal community in curing their ailments. Moyon and Singh (2017) reported 45 species of ichthyotoxic plants within 21 families used for fishing, while Moyon (2018) reported 14 ichthyotoxic plants specifically used by the *Moyon* tribe in fishing. Chara and Moyon (2021) reported 66 plants with medicinal properties used in folk remedies; some of the plants are also consumed as vegetable. There is not much work done on ethnobotanical studies among the *Moyon* community. Therefore, an urgent call for extensive research and documentation on ethnomedicinal perspectives of the *Moyon-Naga* tribe which is the need of the hour.

MATERIALS AND METHODS

Information of various ethnobotanically important plants were collected with the permission of the village authority and seniors, their utilization patterns were noted periodically, based on the validation of the uses and a short description, updated correct botanical name of plants with valuable data used by *Moyon* tribe were developed and documented. Intensive ethnobotanical survey was conducted during the tenure of the research programme 2020 to 2023, among the people of *Moyon-Naga* tribe for gathering information on ethnobotanically important plants (wild edible plants, medicinal plants, socio-cultural plants, etc.) which are traditionally used by them. The authenticity of the uses was repeatedly verified by asking to the different informers through questionnaires.

Study Site and Moyon inhabited areas

The *Moyon* (Bujuur in local dialect) are one of the earliest settlers of the state of Manipur and settled in the district of Chandel and few in the border areas of Myanmar. One of the smallest tribes in the states of Manipur with a population of a little over 2689 (Publicity & information Secretary, BAP–Moyon Apex body), the Moyon tribes settled in 17 villages, namely: 1.Kapaam (Koplathabi) village, 2. Nungthar (Penaching) village, 3.Tungphae (Heigrutampak) Village, 4.Khukthar village, 5.Mangkang village, 6.Khurhwardam village, 7.Kuurkam village, 8.Khuwring village, 9.Sinadam village, 10.Thangkin village, 11.Chumthar village, 12.Khungjuur village, 13.Mitong village, 14.Laarfuw village, 15.Rashangkhur Village, 16.Moyon Khullen village, 17. Ringkum village. The present study is based on the data collected from the people inhabited at Koplathabi village area.

Table 1. *Moyon* inhabited areas: Name of Village with Longitude, Latitude and Altitude in Chandel and Tengnoupal Districts, Manipur.

SL. NO.	NAME OF VILLAGE	LATITUDE	LONGITUDE	ALTITUDE
1	Kapaam (Koplathabi) village	24.412412	94.012932	768.21 m
2	Nungthar (Penaching) village	24.409998	94.024718	765.17 m
3	Tungphae (Heigrutampak) village	24.424747	94.019826	782.89 m
4	Khukthar village	24.4083279	94.01005887	789.24 m
5	Mangkang village	24.423168	94.005721	819.1 m
6	Khuurhwardam village	24.35368421	94.00780856	846.54 m
7	Kuurkam village	24.338584	93.995784	968.84+/-11 m
8	Khuwringkhuw village	24.337707	94.001018	951.33+/-89 m
9	Sinadam village	24.336501	94.002679	839.4 m
10	Thangkin village	24.313261	94.042835	929.3 +/-13 m
11	Chumthar village	24.313009	94.046033	1004.68+/-9 m
12	Khungjuur village	24.291053	94.07426	1700.0 m
13	Mitong village	24.335382	94.062514	1313.21+/- 17 m
14	Laarfuw village	24.389612	94.132375	2149.0 m
15	Mitong Rashangkhur Village	24.332238	94.003630	2000.0 m
16	Moyon Khullen village	24.27901	94.213554	2500.0 m
17	Ringkum village	24.332461	94.003949	898.89+/-15.79 m

Plant Collection and Identification:

In case of contradictory information, efforts will be made to get the correct information. Regular surveys were conducted following the questionnaire of (José, *et al.*, 2009) at the selected local vegetables, medicinal etc., markets of the 16 villages at least twice in a month. A total of 104 women informants were interviewed regarding the local name of the leafy vegetables, their use for instance as medicinal, edible, etc., source and market price. Voucher specimens were processed and mounted herbarium sheets following Jain and Rao (1977). The plants were identified with the help of different published literatures including Deb (1961a, b), Kanjilal *et al.* (1934–1940) and José, *et al.* (2009). One set of herbarium specimens was pre-identified at Manipur University Museum of Plants (MUMP), Life Sciences Department, Manipur University, Imphal, and their accession numbers were checked and authenticated. The same herbarium was further checked at Botanical Survey of India, Eastern Circle Shillong, and deposited to the herbarium of the Department of Botany, Royal Global University, Guwahati.

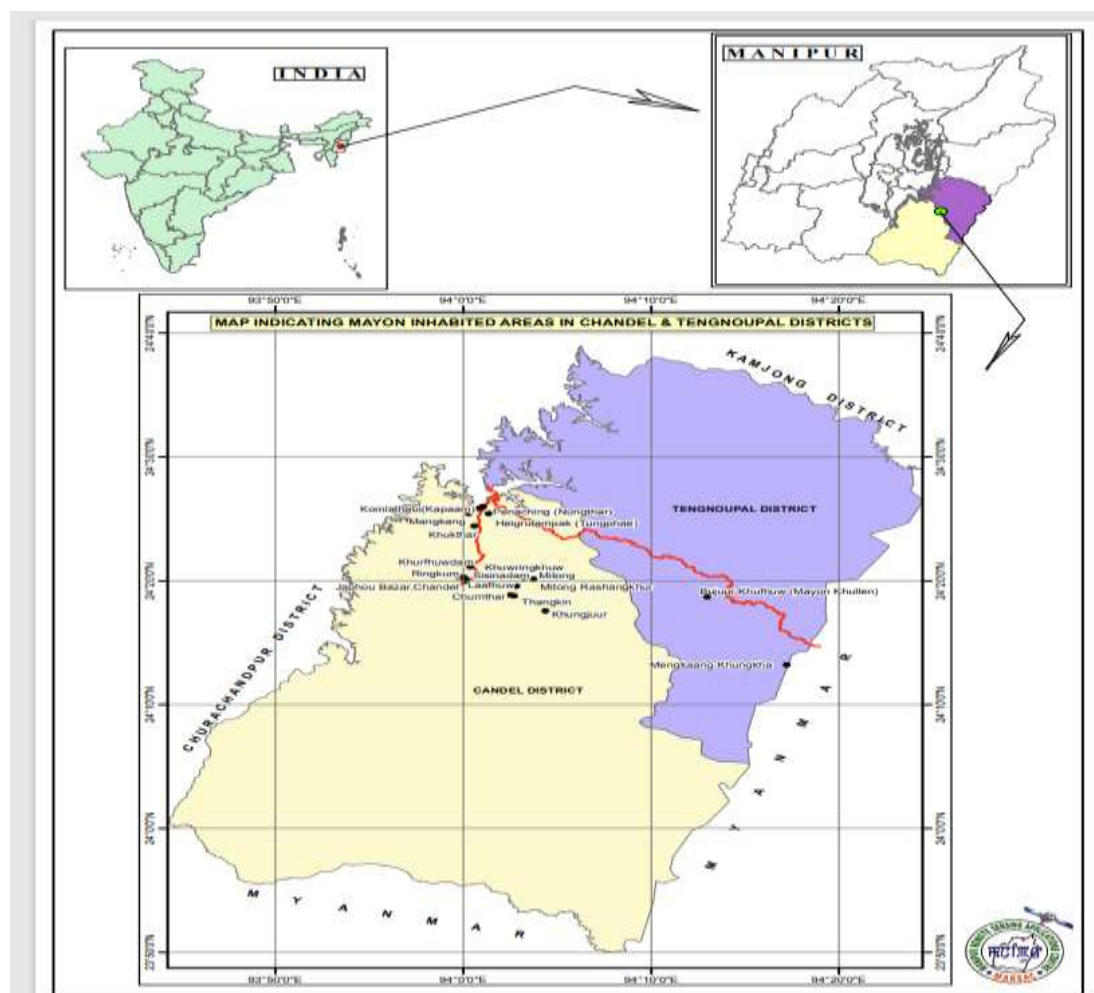


Figure 1. Map of Study Sites: India and Manipur map, showing the *Moyon* inhabited areas in Chandel (Light pink) and Tengenoupal Districts of Manipur. Study sites plotting by black spots.

Data analysis:

Data analysis was carried out by using ethnobotanical investigation and descriptive statistical methods, such as frequency and percentage, to evaluate the importance of the plant species mentioned in the study area. Preference ranking exercises according to Martin (1994), Bernard (2006) and Teklay *et al.* (2013) were conducted by asking informants to rank the most important ethnobotanical plants that were frequently used by the local people based on their preference and the importance of the plant in the community. Local healers and seniors are automatically qualified as key informants, who are custodians of indigenous knowledge of ethnobotanical plants. The informant consensus factor (ICF) was calculated to determine the effectiveness of the medicinal plants in each ailment category according to Wang and Wang (2017). The formula is provided below:

$ICF = (n_{ur} - n_t) / (n_{ur} - 1)$ n_{ur} is the number of individual reports of a plant use for a particular illness category and n_t is the total number of species used by all informants for this illness category.

The fidelity level (FL) was calculated for each of the 85 preferred species for their popularity according to the key informants who cited them in the treatment of particular ailments (Wang and Wang, 2017, Friedman *et al.* 1986 and Ugulu, 2010). The formula is provided below:

$FL = I_p / I_u \times 100\%$ I_p is the number of informants who suggested the use of a species for the same major purpose (therapeutic use) and I_u is the total number of informants who mentioned the plant species for any use.

RESULTS AND DISCUSSION

The ethnobotanical data collected, identified, and documented from the 17 sites of *Moyon* inhabiting areas of Chandel district Manipur were critically analysed. A total of 85 medicinal plants belonging to 34 families were documented across 28 ailments. The family Asteraceae and Poaceae were the most represented with 11 plant

species each and followed by Amaranthaceae with 8 plant species (Fig.2). The most used plant parts were found to be leaves with 44%, whole plant with 24%, shoot with 9% and rhizome with 5% (Fig.3).

Fidelity Level (FL%) value of the recorded 85 plant species ranges from 20% - 100% (Table- 2). Highest fidelity level value (100%) has been recorded for twelve plants such as *Alpinia galanga* for Cold & Cough, sore throat/ Oral (decoction), *Artemisia nilagirica* for Gastrointestinal/ Oral (decoction), *Plantago erosa* for Piles/ (Boiled), *Oroxylum indicum* for Cancer, diabetics, hypertension, spleen disorder/ Oral/Topical (Decoction, juice), *Nelumbo nucifera* for Diabetes, Eye vision/ Oral (Juice, Raw), *Fragaria indica* for Urinary tract infection/ Oral (Decoction), *Euphorbia hirta* for Asthma, bronchitis, leucorrhoea/ Oral (Decoction), *Eleusine indica* for Hyper-tension/ Oral (Decoction), *Catharanthus roseus* for Cancer, Diarrhoea, dysentery/ Oral (Decoction), *Centella asiatica* for Hypertension tonic, Brain/Oral (decoction/cooked), *Clerodendrum colebrookianum* for Hypertension/Oral (Decoction) and *Crassocephalum crepidioides* for Gastrointestinal, Cuts & wounds/ Oral (decoction, Leaf extract), etc.

The highest FL% value could be considered as an indicator for the high healing potential of those plants used against the corresponding diseases. Plants with highest fidelity level value could also be targeted for further phytochemical investigation to identify the bioactive compounds that are responsible for their high healing potential. These twelve plant species are till commonly growing in natural habitats in the study area with no adverse effect of collection pressure upon them, but in future there may be a chance of declining the population of them due to their high use pressure in long term.

The informant consensus factor (ICF) was calculated to determine the effectiveness of the medicinal plants in each ailment which reveals that *Alpinia galanga* Willd. is the most preferred medicinal plant followed by *Artemisia nilagirica* B.Clarke) Pamp., *Zehneria scabra* Sind. (Table- 2). The fact that *Alpinia galanga* Willd. is the most frequently used plant for treatment of Cold & Cough, sore throat/ Oral (decoction) in the area which highlights its highest efficacy potential among the ten plant species cited by the informants. Here ICFs of the plants ranges from 0.93 -90.

Table 2. Some selected Ethno-medicinally important plants used by the *Moyon* tribes in Chandel and Tengnoupal Districts, Manipur.

Sl. No.	Plants name	Family	Local name	Parts used	Ailments category/ Administration and preparation	ICF	FL %
1	<i>Achyranthus aspera</i> L	Amaranthaceae	<i>Chumpep/ Khuchumpere</i>	Leaves	Gastrointestinal, Common venomous bites or stings /Oral, topical (decoction; paste)	0.80	80
2	<i>Acmella paniculata</i> (Wall. ex DC.) R. K Jansen	Asteraceae	<i>Shaapa /Lalu-kok</i>	Leaves	Toothache/Oral (paste)	0.69	40
3	<i>Artemisia nilagirica</i> (C.B.Clarke) Pamp.	Asteraceae	<i>Thingna-evaar/Laibakngou</i>	Leaves	Gastrointestinal/ Oral (decoction)	0.90	100
4	<i>Ageratum conyzoides</i> L.	Asteraceae	<i>Chuurnum evaar/Khongjai-Napi</i>	Leaves	Hypertension, pregnant complicacies/ Topical (paste/leaf extract)	0.83	80
5	<i>Ageratum haustoniaum</i> Mill.	Asteraceae	<i>Chuurnam/ Khongjai-Napi</i>	Whole plant	Mensural disorder/ Oral (decoction)	0.90	40
6	<i>Alpinia galanga</i> Willd.	Zingiberaceae	<i>Pallei/Pullei</i>	Rhizome	Cold & Cough, sore throat/ Oral (decoction)	0.93	100
7	<i>Alternanthera sessilis</i> (L). R Br.ex DC.	Amaranthaceae	<i>Paethari/ Phakchet</i>	Whole plant, Root	Dysentery, Boils/ Oral /topical (decoction/paste)	0.87	60
8	<i>Alternanthera philoxeroides</i>	Amaranthaceae	<i>Paethanaa/ Kabo-Napi</i>	Shoot	Diarrhoea/Oral (infusion)	0.93	40

	(Mart). Griseb						
9	<i>Amarnathus spinosus</i> L.	Amaranthaceae	<i>Chengkruk-Tingkhangpan bi</i>	Leaves , Shoot	Boils and sprains, gout/ Oral, Topical (decoction, paste)	0.89	60
10	<i>Arundo donax</i> L.	Poaceae	Yongto/Yenthou	Shoot	Worm/Oral (Decoction)	0.92	50
11	<i>Amarnathus virides</i> L.	Amaranthaceae	Changkuk/Chengkruk	Whole plant	Gastrointestinal/ Oral (cook)	0.82	30
12	<i>Begonia species,</i>	<i>Begoniaceae</i>	Echuur-haetha/buna	Leaves	Boils & sprain/ Oral (Paste)	0.81	30
13	<i>Blumiopsis falcata</i> (D. Don) Merr.	<i>Compositae</i>	Tungnak /Tungnak	Leaves	Cold & Cough, worms/ Oral (juice)	0.82	40
14	<i>Cajanus cajan</i> (L.) Millsp.	<i>Papilionaceae</i>	<i>Jaangthing /Meirongbi</i>	Leaves	Diarrhoea/ Oral (juice, Decoction)	0.79	70
15	<i>Carica papaya</i> L.	<i>Caricaceae</i>	Akwashaema/ Awathabi	Leaves , fruits	Malaria & fever/ Oral (Decoction)	0.79	60
16	<i>Catharanthus roseus</i> (L.) G.Don	<i>Apocynaceae</i>	Doctor-rii / Sahib Lei or Kudam lei	Leaves	Cancer, Diarrhoea, dysentery/ Oral (Decoction)	0.90	100
17	<i>Centella asiatica</i> (L) Urb.	Apiaceae	Shaven/Perk	Whole plant	Hypertension tonic, Brain/ Oral (decoction/cooked)	0.90	100
18	<i>Cardamine hirsute</i> L.	Brassicaceae	Khiina-rii/Chantrukman	Whole plant	urinary tract Infection/Oral (cooked)	0.84	50
19	<i>Coix lachryma jobi</i> L.	Poaceae	Khongruw/Chaning	Leaves	urinary tract Infection (Dysuria)/ Oral (decoction)	0.84	30
20	<i>Colocasia esculenta</i> (L.) Schott	Araceae	Shakmuw/Lampan	Petiole	Cuts & wounds/ Topical (paste)	0.88	40
21	<i>Crassocephalum crepidioides</i> (Benth.)S. Moore	Asteraceae	Tungnuw /Tera paibi	Leaves	Gastrointestinal, Cuts & wounds/ Oral (decoction, Leaf extract)	0.75	100
22	<i>Chenopodium album</i> L.	Chenopodiaceae	Shaemaerii/Monsaobi	Shoot	Hepatic Disorder/ Oral (Decoction)	0.64	30
23	<i>Clerodendrum colebrookianum</i> Walp.	<i>Lamiaceae</i>	Aenphuw/ Khuthap Jati Kuppi manbi)	Leaves	Hypertension / Oral (Decoction)	0.90	100
24	<i>Curcuma caesia</i> Roxb.	<i>Zingiberaceae</i>	Jinghang Andoop/ Yaimu	Rhizome	Cold & cough, Dysentery, witchcraft/ Oral (Juice)	0.85	100
25	<i>Cymbopogon citrates</i> (DC.)Stapf	Poaceae	Phaerii/ Charot	Leaves	Malarial Fever/ Oral (Decoction)	0.90	40
26	<i>Cynodon dactylon</i> (L)Pers	Poaceae	Hapuw/ Tingthou	Whole plant, Root	Gastrointestinal, urinary tract infection (Dysuria)/ Oral (juice)	0.76	80
27	<i>Dichrocephala integrifolia</i> Kuntz.	Asteraceae	Chiishuwrna/ Lalukok	Leaves	Pregnant, Indigestion, Labour pain/Oral (Decoction)	0.92	80
28	<i>Dolichos biflorus</i> L.	Leguminosae	Kochre / Hawai uri (Ngakichou manbi)	Seed	Boils, sprain, Burns / Oral (paste)	0.82	30
29	<i>Drymaria cordata</i> (L.) Willd.ex Schult.	Caryophyllaceae	Ethiiruwnoh/Tandan pambi	Whole plant	Eye vision, Asthma / Decoction, Inhalation, Oral (Smoke)	0.90	70
30	<i>Eclipta prostrata</i> (L.) L.	Asteraceae	Bajuwna/Uchisumban	Leaves	Malarial Fever/ Oral (Decoction)	0.91	80
31	<i>Elaeagnus umbellata</i> Thunb	<i>Elaeagnaceae</i>	Bachae / Heiyai	Leaves	Menstrual disorder, white discharge/ Oral (Decoction)	0.89	70
32	<i>Eleusine indica</i> Gaertner	<i>Poaceae</i>	Echuur Anror/ Pungphai	Whole plant	Hyper-tension/ Oral (Decoction)	0.90	100
33	<i>Enydra fluctuans</i> Lour.	Asteraceae	Keengfuw/Komprek tujombi	Whole plant	Gout, Antidote (Food poison)/Oral	0.66	30

					(Decoction/Juice)		
34	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Anaeshuwnii /Pakhangbamaton	Whole plant	Asthma, bronchitis, leucorrhoea/ Oral (Decoction)	0.94	100
35	<i>Equisetum debile</i> Roxb.ex Vaucher.	Equisetaceae	Ruwmae-anruw/Lai-utong	Whole plant	Rheumatism / oral (paste)	0.88	70
36	<i>Eupatorium odoratum</i>	Compositae	Khurammanchuur/ Kambirei	Stem	Cuts & wounds/ Leaves, tender stems	0.80	40
37	<i>Euryale ferox</i> Salisb.	Nymphaeaceae	Thajiing/Thajiing	Leaves, Seed	Leucorrhoea, tonic/ Topical, Oral (Infusion, Cooked)	0.94	50
38	<i>Fragaria indica</i> Andr.	Rosaceae	Anaruwnga Ancha/ Mangarongbi/ Heijampet	Whole plant	Urinary tract infection/ Oral (Decoction)	0.90	100
39	<i>Gomphrena globosa</i> L.	Amaranthaceae	Typhoid anna/ Petruk Lei	Whole plant	Typhoid fever/ Oral (Decoction)	0.71	30
40	<i>Hebiscus sabdariffa</i> L.	Malvaceae	Aenthuur Eshaen/Silot Sougri	Leaves	Common venomous bites or stings, Indigestion/ Tropical, oral (decoction)	0.89	60
41	<i>Pseudognaphalium luteoalbum</i> (L.) Hilliard & B.L.Burt	Asteraceae	Phunin	Leaves	Hepatic disorder, Headache/Topical (Paste)	0.92	50
42	<i>Hedyotis auricularia</i> L.	Rubiaceae	Kaeku/ Langban koukha	Leaves	Jaundice/ Oral (Infusion)	0.93	50
43	<i>Hedycium coronarium</i> J. Koenig	Zingiberaceae	Loklei	Rhizome	Cold & Cough, common Fever/ Oral (Decoction)	0.85	80
44	<i>Hydrocotyle sibthorpioides</i> Lam.	Apiaceae	Lai-peruk	Leaves	Jaundice, common Fever / Oral (Fresh leaves extract)	0.91	50
45	<i>Ipomoea aquatica</i> Forssk.	Convolvulaceae	Kolamni	Whole plant	Piles, Gastrointestinal, eye vision (Retinitis)/ Oral, Topical (Infusion, Paste)	0.89	60
46	<i>Ipomoea batatas</i> L.	Convolvulaceae	Mangkra Esheen/ Mangra Angangba	Leaves	Boils, sprains, cut & wounds/ Oral (Paste)	0.79	40
47	<i>Jussiaea repens</i> L.	Onagraceae	Ishing kundo	Leaves	Diabetes, Boils, sprains/ Topical, Oral (Paste, Cooked)	0.88	30
48	<i>Jussiaea suffruticosa</i> L.	Onagraceae	Tebo	Leaves	Tooth ache, Urinary tract infection (Strangury)/ Oral (Paste, Decoction)	0.94	30
49	<i>Kyllinga brevifolia</i> Rottb.	Cyperaceae	Shembang kouthum	Rhizome, Leaves	Cancer, cuts and wounds/ Oral, Topical (Juice, Paste)	0.91	40
50	<i>Lantana camera</i> L.	Verbanaceae	Thirei	Leaves	Skin diseases, cancer/Topical, Oral (Paste, Decoction)	0.95	50
51	<i>Leucas aspera</i> (Willd.) Link.	Lamiaceae	Mayang lembum	Leaves	Cold and cough, Inflammation/ Oral, Topical (Infusion, Paste)	0.82	60
52	<i>Lindernia ruellioides</i> (Colsm.) Pennell	Linderniaceae	Kihoman	Whole plant	Kidney stone/ Oral (Decoction)	0.92	30
53	<i>Mangifera indica</i> L.	Anacardiaceae	Haerih/Heino u macha	Bark	Diarrhoea/ Oral (Decoction)	0.83	40
54	<i>Melastoma malabathricum</i> L.	Melastomaceae	Tongtae / Yachubi/Nura Khundonlei	Leaves, tender branches	Diabetics/ Oral (Decoction)	0.85	70

55	<i>Mussaenda erythrophylla</i> Schum. & Thonn	Rubiaceae	Phrep Pempuw /Hanurei	Leaves	Boils & Sprain/ Oral (Paste)	0.65	40
56	<i>Mimosa pudica</i> L.	Mimosaceae	Kangphal ikaithabi	Leaves	Leucorrhoea, Piles / Topical (Boiled)	0.91	50
57	<i>Neptunia oleracea</i> Lour.	Mimosaceae	Ningjakna/ Eshing ikaithabi	Leaves	Dysentery/ Oral (Cooked)	0.85	60
58	<i>Nymphoides indica</i> (L.) Kuntze.	Gentianaceae	Tharo macha	Whole plant	Common venomous bites or stings/ (Fresh leaf extract)	0.89	50
59	<i>Nymphaca stellata</i> Willd.	Nympheaceae	Thariktha	Whole plant,	Hepatic disorder, Menstrual disorder/ Oral/Topical (Decoction, Paste)	0.89	80
60	<i>Nelumbo nucifera</i> Gaertn.	Nelumbonaceae	Thamban/Tha mbal	Rhizome, Seed	Diabetes, Eye Vision/ Oral (Juice, Raw)	0.93	100
61	<i>Rorippa indica</i> (L.) Hiern	Brassicaceae	Uchi- hangam	Shoot	Kidney stone ,Diabetes / Oral (Cooked)	0.89	30
62	<i>Oenanthe javanica</i> (Blume)DC.	Apiaceae	Komprek	Shoot	Worm / Oral (Cooked)	0.83	60
63	<i>Oroxylum indicum</i> L.	Bignoniaceae	Waktumdel/S amba	Leaves, bark, roots	Cancer, diabetics, hypertension, spleen disorder/ Oral/Topical (Decoction, juice)	0.92	100
64	<i>Oxalis corniculata</i> L.	Oxalidaceae	Yensil	Whole plant	Rheumatism/ Oral (Cooked)	0.86	50
65	<i>Paederia foetida</i> L.	Rubiaceae	Ruwnam/oinu m	Leaves	Rheumatism, sprain/ Oral (Juice, raw)	0.85	80
66	<i>Persea macrantha</i> (Nees) Kosterm.	Lauraceae	Pengna/Nong nangkori	Leaves	Rheumatism, Eye sore, hair-fall/ Oral (paste, juice)	0.85	70
67	<i>Phlogacanthus tubiflorus</i> Nees	Acanthaceae	Paarcheep esheen/ Nongmangkha Angangba	Leaves, flowers	Cold & Cough, piles/ Oral (juice, decoction)	0.82	80
68	<i>Plantago fengdowensis</i> (Z.E. Zhao & Y. Wang) Y. Wang & Z.Y.Li Syn. <i>Plantago erosa</i> Wall	Plantaginaceae	Lamkuung/ Yempat	Whole plant	urinary tract infection, Stomach acidity/Oral (decoction)	0.77	80
69	<i>Phlogacanthus jenkinsii</i> C.B. Clarke	Acanthaceae	Paarchip ethuur / Nongmangkha Ashinba (White)	Leaves	Jaundice, diabolic/ Oral (juice)	0.93	80
70	<i>Polygonum barbatum</i> L.	Polygonaceae	Yellang	Leaves	Urinary tract infection (Diuresis)/ Oral (Decoction)	0.67	30
71	<i>Plantago erosa</i> Wall.	Plantaginaceae	Lumkuung/Ye mpat	Leaves, Root	Piles/ (Boiled)	0.90	100
72	<i>Polygonum plebeium</i> R.Br.	Polygonaceae	Tharamna/Tha ram mana	Leaves	Urinary tract infection (Dysuria)/ Oral (Decoction)	0.76	50
73	<i>Polygonum hydropiper</i> L.	Polygonaceae	Chaokhong	Shoot, Seed	Dysentery, Fever / Topical/Oral (Paste, Infusion)	0.86	50
74	<i>Polygonum minus</i> Huds.	Polygonaceae	Chaokhong macha	Shoot	Urinary tract infection (Strangury)/ Oral (Raw)	0.68	40
75	<i>Pistia stratiotis</i> L.	Araceae	Kangjao	Whole plant	Boils & sprain/ Topical (Paste)	0.70	20
76	<i>Ribes uva-crispa</i> L.	Grossulariaceae	Shaeruw/Heig ru	Bark, Fruit	Diarrhoea/ Decoction	0.85	30
77	<i>Rumex maritimus</i> L.	Polygonaceae	Torong khongchak	Leaves, Stem	Skin diseases/ Topical (Paste)	0.95	40

78	<i>Rotala rotundifolia</i> (Buch.-Ham.ex Roxb.) Koehne	Lythraceae	Thingnai ynjam/Labuk leiri	Whole plant	Urinary Tract infection/ Oral (Decoction)	0.52	30
79	<i>Sapindus trifoliatus</i> L.	Sapindaceae	Thingfuw Anlaa/ Kekru	Fruits	Worm, hair scalp/ Oral (juice)	0.87	50
80	<i>Schefflera arboricola</i> (Hayata) Merr.	Araliaceae	Baraang /leikhut	Bark	Gastrointestinal/ Oral (fresh)	0.75	30
81	<i>Scoparia dulcis</i> L.	Scrophulariaceae	Saruw edhih/ Yanglimanbi	Whole plant	Kidney stone/ Oral (Decoction)	0.89	45
82	<i>Setaria italica</i> (L.) P.Bleauv.	Poaceae	Khiichuung/H oop	Grain	Rheumatism/ Topical (Paste)	0.82	36
83	<i>Strobilanthes auriculata</i> var. <i>acuta</i> Benoist	Acanthaceae	Kum kruk rii/ Kumtrukpi	Whole plant	Rheumatism/ Decoction	0.81	30
84	<i>Magnolia hodgsonii</i> (Hook.f. & Thomson) H.Keng	Magnoliaceae	Chiikhumuk /Uthum	Leaves	Boils & sprains/ Topical (Paste)	0.72	50
85	<i>Zehneria scabra</i> Sind.	Cucurbitaceae	Lampasaemah /lamthabi	Whole plant	Urinary tract infection/ Oral (Decoction)	0.90	100

Fig 2. Plant family used by the Moyon community as medicine.

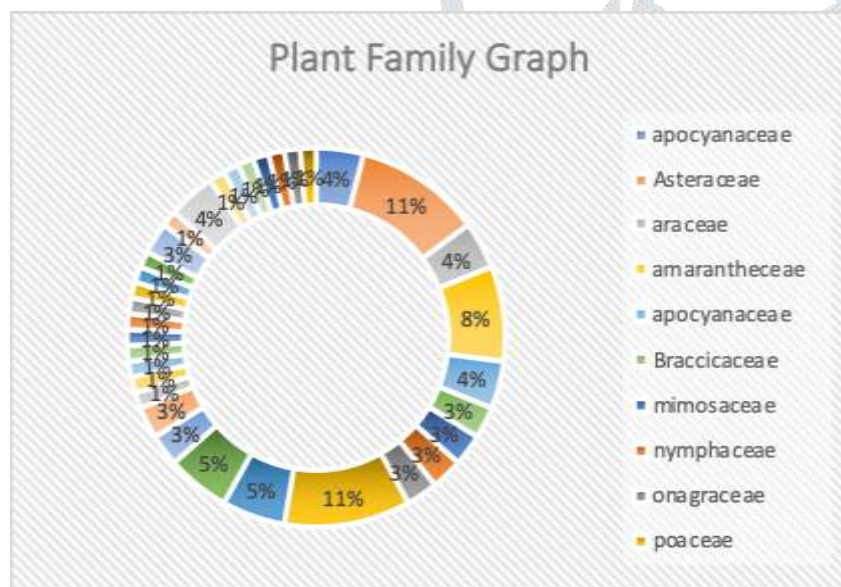
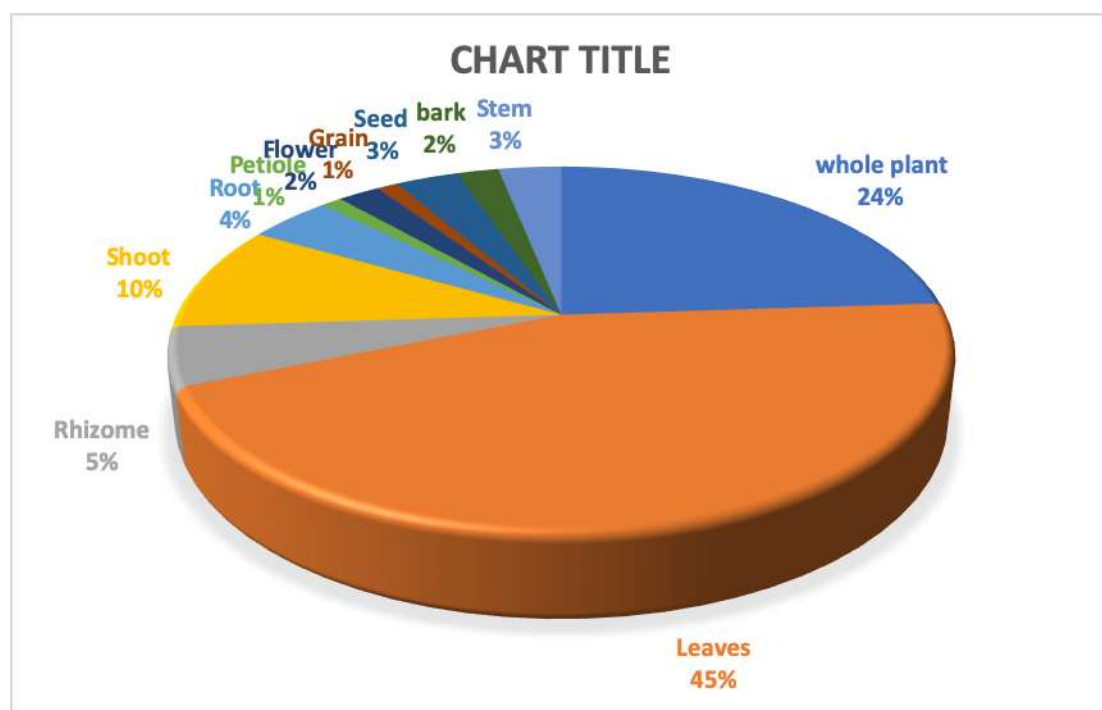


Fig 3. Plant Parts used by the *Moyon* community as medicine.

CONCLUSION

The study will help in preparation of ethnomedicinal database. The use of quantitative tools is very new approach here in analysis of Moyon medicine from Chandel and Tengnoupal Districts of Manipur State. The high consensus obtained from the healers underlines their well-defined herbal tradition and could guide in selection of medicinal plants as potent candidates for bioprospecting and natural product studies. The traditional knowledge of herbal medicine practiced among the *Moyon* community of the 17 villages surrounding the two districts should be conserved through its documentation before it is lost from the respective *Moyon* societies forever. It will also protect the Intellectual property right (IPR) of the *Moyon* community of the study area. The herbal claim of this study has to be exploited further for developing new cost-effective herbal drug.

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