

Traditional knowledge on vegetable treasure of Monsang Naga tribe of Manipur, India

M.R. Devi¹, P.K. Singh² and B.K. Dutta³

¹Department of Botany, United College, Chandel 795 127, Manipur, India

²Centre of Advanced Studies in Life Sciences, Department of Life Sciences, Manipur University,
Canchipur, Imphal 795 003, Manipur, India

³Department of Ecology and Environmental Science, Assam University, Silchar 788 011 Assam, India
E-mails: mayanglambamroma@gmail.com, potsangbank031@gmail.com

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Abstract

The present paper reports 68 plant species belonging to 39 families and 58 genera as indigenous edible vegetables used by *Monsang* Naga tribe of Manipur, India. Materials of this study were collected during 2008 – 2010. It is an interesting to note that these plants may be wild or cultivated with varied edible parts but found in their surroundings in different seasons. Several such vegetables were also found to have medicinal properties.

Key word: Manipur, *Monsang*, vegetable

INTRODUCTION

Monsang Naga tribe is one of the thirty-three scheduled tribes of Manipur. They settled down in the south-eastern part of Manipur particularly in Chandel district. Chandel is 68 km away from Imphal, the capital city of Manipur. The state Manipur lies between 23°49' – 25°41' N Latitude and 92°54' – 94°45' E Longitude and is one of the distinctive part of Indo-Burma Hotspot region (Meyers *et al* 2000). It covers an area of 22,327 km² and it is surrounded by Nagaland on the north, Myanmar on east, Mizoram and Chin Hills of Assam on south and Cachhar District of Assam on west. Elevation of the state varies from 300 m to 3500 m amsl. Manipur has a population of 21, 66,789 with 34 % *i.e.* 7,41,141 constituted by tribal people (Census 2001). The state is inhabited by different ethnic groups and communities.

Monsang Naga is an ethnic tribal group having their own cultural and traditional identity. They speak their own language called '*Monsang*' which is a sub-family of Tibeti-Burmese language family. *Monsang* Nagas inhabit mainly in six different villages of Chandel district viz., Monsang Pantha, Japhou village, Liwa Sarei, Liwa Khullen, Heibunglok and Liwa Changning with a population of 1130 (Census 2001).

Generally, people of *Monsang* tribe settle on foot hill areas. They practice both jhume and wet cultivation. Most of *Monsang* people are agriculturists; they cultivate rice in wet fields and vegetables in jhumes. A kind of rice variety known as '*Ching-phou*' is cultivated in Jhume fields. However most of them depend on forest products for their economy. They collect timber, firewood and different variety of plants for producing charcoal. Many other plant species are used as medicine, vegetable, spices, fish poisoning, dye etc. *Monsang* Naga tribe uses various types of vegetable because they have close relation to village people; all vegetable taken by villagers found in villages are also used by them. In addition, they also take various types of plant species found in forests and in their surroundings. They consume vegetables in different indigenous dishes like *Ametpa* (mixed with fermented fish and chilly), *Champhut* (simple boiled with or without sugar), curry (with or without oil), *Kangou* (fry with or without other vegetables), *ironba* (boiled vegetables are mixed

with fermented fish and chilly), *ooti* (vegetables with rich or pea seeds are cooked caustic soda), *chagem* (vegetables with rich, fermented fish, meats or fish), *singju* (mixture of different varieties of fresh vegetable and fermented fish and chilly) etc. This study recorded vegetable plants used by the *Monsang* Naga tribe found in forests and in their surroundings.

METHODOLOGY

During the field study, villagers of both sexes and of different age groups were interviewed. Vernacular names, part used and the method of preparation were collected from them orally in every village. Plant materials were collected during the survey, mainly in their flowering condition and were photographed at their habitat. Plant specimens were processed into mounted herbarium sheets following the methods given by Jain & Rao (1977). Plant identification and authentication was carried out by perusals of relevant literatures (Kanjilal *et al* 1934 – 1940; Deb 1961a,b and Singh *et al* 2004) and comparing with authenticated specimens at CAL, ASSAM and in the Herbarium of the Department of Life Sciences, Manipur University.

RESULTS

Monsang naga tribe use wide variety of vegetable plant species. They take different plant parts like leaves, shoots, bulbs, stems, roots, rhizomes, flowers, fruits, seeds etc. Common vegetable plants viz., *Alocasia* spp., *Brassica compestris*, *Colocasia* spp., *Curcubita maxima*, *Pisum sativum*, *Solanum* spp., *Vicia faba*, *Vigna* spp., etc and other different variety of vegetables found in markets are also used. But in the present study only the vegetable found in forest and their surroundings are studied and are enumerated below:

- Alpinia allughas*** Roscoe [Zingiberaceae]; **Local Name:** *Pulei*; **Exsiccatae:** *Roma-01240*;
Uses: Rhizome is taken in *ironba*.
- Alpinia galanga*** Willdenow [Zingiberaceae]; **Local Name:** *Behbii*; **Exsiccatae:** *Roma-00791*;
Uses: Rhizome is used in *ametpa* and *ironba*.
- Antidesma acidum*** Retzius [Euphorbiaceae]; **Local Name:** *Ching-yensil*; **Exsiccatae:** *Roma-01202*; **Uses:** Leaves are used as curry and to make soup.
- Ardisia colorata*** Roxburgh [Myrsinaceae]; **Local Name:** *Uthum*; **Exsiccatae:** *Roma-00746*;
Uses: Young shoots are taken in *ironba*.
- Argemone mexicana*** Linnaeus [Papaveraceae]; **Local Name:** *Khomthokpi*; **Exsiccatae:** *Roma - 01246*; **Uses:** Leaves are eaten as curry.
- Artemisia nilagarica*** (Clarke) Pampan [Asteraceae]; **Local Name:** *Laibakngou*; **Exsiccatae:** *Roma - 01280*; **Uses:** Shoots are made into curry.
- Bidens pilosa*** Linnaeus [Asteraceae]; **Local Name:** *Shampakpi*; **Exsiccatae:** *Roma-00773*;
Uses: Shoots are taken in *singju*.
- Bombax ceiba*** Linnaeus [Bombacaceae]; **Local Name:** *Tera*; **Exsiccatae:** *Roma-01242*; **Uses:** Flowers are used in *ametpa* and curry.
- Calamus floribundus*** Griffith [Arecaceae]; **Local Name:** *Thehii*; **Exsiccatae:** *Roma-01248*;
Uses: Tender shoots are taken as *singju*.
- Cassia laevigata*** Willdenow [Caesalpiniaceae]; **Local Name:** *Thaonum*; **Exsiccatae:** *Roma-01250*; **Uses:** Young fruits are eaten boiled and fried.
- Centella asiatica*** (Linnaeus) Urban [Apiaceae]; **Local Name:** *Shiiwin*; **Exsiccatae:** *Roma-00796*; **Uses:** Whole plant is eaten boiled and in *ametpa*, *ironba*, *singju* etc.
- Ceratopteris thalictroides*** (Linnaeus) Brongniart [Parkeriaceae]; **Local Name:** *Lukhoibi*;
Exsiccatae: *Roma-01270*; **Uses:** Young leaves are taken as fried, *ironba* and in curry.

- Cissus adnata*** Roxburgh [Vitaceae]; **Local Name:** *Jangkiml*; **Exsiccatae:** *Roma-01273*; **Uses:** Leaves are eaten in curry and soup.
- Cissus discolor*** Roxburgh [Vitaceae]; **Local Name:** *Jangkin-laba*; **Exsiccatae:** *Roma-00729*; **Uses:** Leaves are used as curry and soup.
- Clerodendrum colebrookianum*** Walper [Verbenaceae]; **Local Name:** *Enphuw*; **Exsiccatae:** *Roma-01211*; **Uses:** Young leaves eaten boiled, in *ametpa* and *singju*.
- Clerodendrum serratum*** Sprengel [Verbenaceae]; **Local Name:** *Moirangkhanum*; **Exsiccatae:** *Roma-00770*; **Uses:** Young leaves and flowers, in boiled, *ametpa* and fry.
- Colocasia esculenta*** (Linnaeus) Schott [Araceae]; **Local Name:** *Bar*; **Exsiccatae:** *Roma-01275*; **Uses:** Leaves in indigenous food of Manipuri 'ooti'.
- Crotalaria juncea*** Linnaeus [Fabaceae]; **Local Name:** *U-hawaimaton*; **Exsiccatae:** *Roma-00704*; **Uses:** Young leaves are used in *singju*
- Curcuma angustifolia*** Roxburgh [Zingiberaceae]; **Local Name:** *Yaipal*; **Exsiccatae:** *Roma-01278*; **Uses:** Flowers are used in boiled, *ametpa*, curry, fry, *ironba* and *bora*.
- Cycas pectinata*** Griffith [Cycadaceae]; **Local Name:** *Yendang*; **Exsiccatae:** *Roma-01233*; **Uses:** Young leaves are taken as curry and ironba and matured leaves are eaten as *singju*.
- Cyphomandra betacea*** Cavan [Solanaceae]; **Local Name:** *U-khamenasinba*; **Exsiccatae:** *Roma-01235*; **Uses:** Fruits are used to make *Ametpa*, curry and soup.
- Debregeasia longifolia*** (Burman) Weddell [Urticaceae]; **Local Name:** *Shanthak*; **Exsiccatae:** *Roma-01266*; **Uses:** Shoots are cooked with meats and fish.
- Dichrocephala integrifolia*** (Linnaeus f.) Kuntze [Asteraceae]; **Local Name:** *Lalukok*; **Exsiccatae:** *Roma-01279*; **Uses:** Shoots are taken as curry
- Dioscorea bulbifera*** Linnaeus [Dioscoreaceae]; **Local Name:** *Behra*; **Exsiccatae:** *Roma-01281*; **Uses:** Tubers are used as boiled and curry.
- Euphorbia hirta*** Linnaeus [Euphorbiaceae]; **Local Name:** *Pakhangleiton*; **Exsiccatae:** *Roma-01290*; **Uses:** Shoots are cooked as curry.
- Eurya acuminata*** DC. [Theaceae]; **Local Name:** *Sijou*; **Exsiccatae:** *Roma-01285*; **Uses:** Leaves are taken as curry with meats.
- Euryale ferox*** Salisbury [Nymphaeaceae]; **Local Name:** *Thangching*; **Exsiccatae:** *Roma-01286*; **Uses:** Stalks are used in *ametpa*, *ironba* and *singju*. Fruits are taken as *ametpa*, curry, *ironba*, fry and *singju*.
- Ficus glomerata*** Roxburgh [Moraceae]; **Local Name:** *Heibong*; **Exsiccatae:** *Roma-01226*; **Uses:** Shoots are eaten as *singju*.
- Ficus palmata*** Forsskål [Moraceae]; **Local Name:** *Hieba*; **Exsiccatae:** *Roma-01223*; **Uses:** Shoots are taken as *ametpa*, *ironba* and *singju*.
- Houttuynia cordata*** Thunberg [Saururaceae]; **Local Name:** *Topanhengkung*; **Exsiccatae:** *Roma-00766*; **Uses:** Plants are used as fresh in *ametpa*, *ironba* and *singju*.
- Hibiscus cannabinus*** Linnaeus [Malvaceae]; **Local Name:** *Sougri*; **Exsiccatae:** *Roma-00784*; **Uses:** Leaves are used as curry and soup.
- Hibiscus sabdariffa*** Linnaeus [Malvaceae]; **Local Name:** *Silo-sougri*; **Exsiccatae:** *Roma-00736*; **Uses:** Leaves are taken as curry and soup. Fruits are used in curry, sour curry, soup and drink.
- Justicia adhatoda*** Linnaeus [Acanthaceae]; **Local Name:** *Chiipar*; **Exsiccatae:** *Roma-00800*; **Uses:** Leaves are used in *ametpa*, boiled, fry and *singju*.

- Leucaena glauca* (Linnaeus) Benth [Mimosaceae]; **Local Name:** *Chigonglei*; **Exsiccatae:** *Roma-01287*; **Uses:** Young fruits are taken as *Singju* and *ironba* and seeds are used in *ironba* and fry.
- Leucas aspera* Link [Lamiaceae]; **Local Name:** *Mayang-lembum*; **Exsiccatae:** *Roma-00764*; **Uses:** Shoots are taken as curry.
- Litsea cubeba* (Loureiro) Persoon [Lauraceae]; **Local Name:** *Ngairong*; **Exsiccatae:** *Roma-00701*; **Uses:** Flowers are taken in *ametpa*, *ironba* and *singju*.
- Lysimachia parviflora* Baker [Primulaceae]; **Local Name:** *Kengoi*; **Exsiccatae:** *Roma-01235*; **Uses:** It is used as curry and soup.
- Manihot esculenta* DC. [Euphorbiaceae]; **Local Name:** *U-mangra*; **Exsiccatae:** *Roma-01295*; **Uses:** Young leaves are used in *ametpa*, *ironba* and *singju*. Tubers are taken as curry and fry.
- Mentha spicata* Linnaeus [Lamiaceae]; **Local Name:** *Nungsit-hidak*; **Exsiccatae:** *Roma-01296*; **Uses:** Shoots are used in curry, fry and *singju*.
- Musa paradisiaca* Linnaeus [Musaceae]; **Local Name:** *Mee*; **Exsiccatae:** *Roma-01274*; **Uses:** Pseudostem, inflorescence and fruits. Pseudostem is taken as curry, *ironba* and *singju*. Fruits are used in fry and inflorescence is used in *ironba*, *singju*, *paknam* and *bora*.
- Neptunia prostrata* Baillon [Mimosaceae]; **Local Name:** *Ekaithabi*; **Exsiccatae:** *Roma-01289*; **Uses:** Shoots are eaten as *ametpa*, fry, *ironba* and *singju*.
- Nymphaea stellata* Willdenow [Nymphaeaceae]; **Local:** *Tharikha*; **Exsiccatae:** *Roma-00772*; **Uses:** Stalks are taken as *Ironba* and *singju*.
- Oroxylum indicum* Ventanot [Bignoniaceae]; **Local Name:** *Wachambwer*; **Exsiccatae:** *Roma-00758*; **Uses:** Fruits are taken as *ametpa*, boiled, fry and *singju*.
- Oxalis corniculata* Linnaeus [Oxalidaceae]; **Local Name:** *Titra*; **Exsiccatae:** *Roma-00709*; **Uses:** It is used in curry and soup.
- Parkia javanica* Merrill [Mimosaceae]; **Local Name:** *Youngcha*; **Exsiccatae:** *Roma-00778*; **Uses:** Fruits are used in many varieties of items like *ametpa*, curry, fry, *ironba*, *singju* etc. and young leaves are used in *chagem*.
- Passiflora edulis* Sims [Passifloraceae]; **Local Name:** *Mejang-antichii*; **Exsiccatae:** *Roma-01228*; **Uses:** Shoots are eaten as boiled and *ametpa*.
- Persicaria barbata* (Linnaeus) H. Hara [Polygonaceae]; **Local Name:** *Yelang*; **Exsiccatae:** *Roma-01273*; **Uses:** Shoots are taken as curry and *singju*.
- Persicaria capitata* (D. Don) H. Gross [Polygonaceae]; **Local Name:** *Kekungsham*; **Exsiccatae:** *Roma-00718*; **Uses:** Shoots are taken as curry with fish.
- Persicaria hydropiper* (Linnaeus) Spach [Polygonaceae]; **Local Name:** *Lilhar*; **Exsiccatae:** *Roma-01210*; **Uses:** Shoots are used in curry and soup
- Phlogacanthus thrysiflorus* Nees [Acanthaceae]; **Local Name:** *Chiipar*; **Exsiccatae:** *Roma-00717*; **Uses:** Shoots and flowers are used in boiled, *ametpa*, curry, fry, *singju* etc.
- Phlogacanthus tubiflorus* Nees [Acanthaceae]; **Local Name:** *Chiipar*; **Exsiccatae:** *Roma-00745*; **Uses:** Flowers are used in boiled, *ametpa*, curry, fry, *singju* etc.
- Plantago erosa* Wallich [Plantaginaceae]; **Local Name:** *Yempat*; **Exsiccatae:** *Roma-01265*; **Uses:** Leaves are used in boiled, *ametpa* and curry.
- Psophocarpus tetragonolobus* (Linnaeus) DC. [Fabaceae]; **Local Name:** *Tengnou-manbi*; **Exsiccatae:** *Roma-00741*; **Uses:** Young fruits are used in *ironba* and *singju*.

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Rhus semilata Murray [Rubiaceae]; **Local Name:** *Khomha*; **Exsiccatae:** *Roma-01300*; **Uses:** Flowers are taken in *singju* and leaves are also used in *singju* and *bora*.

Rumex nepalensis Sprengel [Polygonaceae]; **Local Name:** *Torongkhongchak*; **Exsiccatae:** *Roma-01229*; **Uses:** Young leaves are taken as curry.

Schima wallichii (DC.) Korthals [Theaceae]; **Local Name:** *Usoi*; **Exsiccatae:** *Roma-01299*; **Uses:** Tender leaves are taken as *singju*.

Sesbania sesban (Linnaeus) Merrill [Fabaceae]; **Local Name:** *Chu-chu rangmei*; **Exsiccatae:** *Roma-00781*; **Uses:** Fruits and shoots are taken as *ironba* and *singju*.

Solanum anguivi Lamarck [Solanaceae]; **Local Name:** *Leipung-khanga*; **Exsiccatae:** *Roma-01276*; **Uses:** It is taken as *ametpa* and fry.

Solanum torvum Swartz [Solanaceae]; **Local Name:** *Khanga*; **Exsiccatae:** *Roma-00763*; **Uses:** Fruits are taken as *ametpa* and fry.

Stellaria media (Linnaeus) Villars [Caryophyllaceae]; **Local Name:** *Yerum-keirum*; **Exsiccatae:** *Roma-00735*; **Uses:** Shoots are cooked as curry.

Tetragium bractiolatum Planchon [Vitaceae]; **Local Name:** *Monjam-hei*; **Exsiccatae:** *Roma-01298*; **Uses:** Shoots are used in curry and soup.

Trapa quadrispinosa Roxburgh [Trapaceae]; **Local Name:** *Heikak*; **Exsiccatae:** *Roma-00757*; **Uses:** Stolen and young leaves are used to prepared *Ametpa*, *ironba* and *singju*.

Vangueria spinosa Roxburgh [Rubiaceae]; **Local Name:** *Thepi*; **Exsiccatae:** *Roma-00783*; **Uses:** Leaves are taken as *singju*.

Vicia tetrasperma Moench [Fabaceae]; **Local Name:** *Pikhonhjai*; **Exsiccatae:** *Roma-00734*; **Uses:** Shoots are used in *singju*.

Wendlandia glabrata DC. [Rubiaceae]; **Local Name:** *Betiing*; **Exsiccatae:** *Roma-00714*; **Uses:** It is used in *ametpa*, *ironba* and *singju*.

Zizania latifolia (Grisebach) Turczaninow ex Stapf [Poaceae]; **Local Name:** *Kambong*; **Exsiccatae:** *Roma-01294*; **Uses:** It is taken as fry.

DISCUSSION

The present report focused on the indigenous vegetables used by the *Monsang* naga tribe of Manipur. Their main food is rice with various types of preparations like meat curry, vegetable curry, chutney, *ironba*, simple boiled etc. Most of the vegetables are taken in different items of curry and other supplementary dishes like *ametpa*, *Champhut*, *Singju*, *kanghou*, *bora*, etc. Those vegetables are taken as raw or cooked. Most of them like simple boiled and simple curry without cooking oil even in meat curry. In every meal, a simple boiled item known as 'Champut' is taken and mixed-vegetable dish called 'Shingju' with chilly and fermented fish as additional dishes. In simple boiled item, many variety of vegetables are used in alternately or as available at that time. However, *Clerodendrum colebrookianum* is eaten in every meal for controlling hypertension and as blood purifier. Every household cultivate this plant in their surrounding areas. In 'Shingju' various plant species except those plants having sour taste, are used as fresh or steamed.

Monsang tribe used different parts of vegetable plants viz., leaves, shoots, stems, flowers and other parts of 68 plant species belonging to 39 families and 58 genera. Among those 22 plants are taken as shoot, leaves of 21 species, flowers and inflorescence of 10 species, fruits of 8 plants, 3 species as whole plants, rhizome, 1 as tuber, and the bulbils of one species. The leaves and fruits of plants like *Hibiscus sabdariffa* and *Parkia javanica*, and shoots and flowers of *Phlogacanthus thrysiflorus* and *Rhus semilata* are used. Due to the consumption of several variety of fresh vegetables *Monsang* people are blessed with sound health.

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