

## 6. SUMMARY AND CONCLUSION

The study of Muslim (*Pangal/Meitei-Pangal*) community's traditional relationship with local plants has been documented for the first time within the scope of this research. Traditional healers have been using various plant sources to prescribe as medicines to treat different ailments. These plants were used either alone or in combination to cure or alleviate health problems. For instance, the fresh extracted seed oil of *Brassica rapa* L. is used in some combination to treat burns; the plant is believed to possess antipyretic and antibiotic properties. Similarly, plants capable of warding off germs in poultry houses have also been recorded.

Eating habits reflecting in local cuisine is one unique cultural manifestation of any particular community. It is recorded the community under study drink tea and coffee. This also supports the existing tradition of cultivating coffee plants in gardens. Rice is taken as a staple food in this community. Preparation of local delicacies with plants like the curry called *Eromba* (plants + chilli + macerated fermented fish with ginger + water etc) is noted. It has two procedures i.e. '*Mathak*' and '*Makha Eromba*'; the first one involves cooking in oil while in the latter oil is not used. The community also relishes bamboo shoot with or without fermentation. They are also known to use flavoring plants such as *Anethum graveolens* L and *Coriandrum sativum* L. in their curry preparations. They eat 'chatani/singju' mainly made by chilly and fermented fish. They use plants like *Hibiscus cannabinus* L and *Mangifera indica* L. as appetizers. Apart from other plant parts, various fruits and nuts are also consumed. Some plants used as animal food also are recorded.

The wisdom of making of tools from plants for use in daily activities is also known, prominently used in agriculture and horticulture, fishing, weaving, house building etc has been recorded. Bamboo plants cultivated at large are commonly in the preparation of tools. It has been noticed that the community takes serious interest in the cultivation of

bamboo plants and also in its conservation and protection by making use of fencing to protect agricultural fields. Plants are used to manufacture tools required to clear weed and allow proper growth of *Oryza sativa* L. Local Muslim artisans earn their livelihood by making tools such as fish traps and cloths. Due to the community's affability to eating fish, manufacture of fish traps out of bamboo is common. The community also lays emphasis on personal hygiene and this is supported by the fact that they locally prepare shampoo using rice water, *Ageratum conyzoides* L, *Pogostemon cablin* (Blanco) Benth and *Meyna spinosa* Roxb. ex Link.

Plants have been an integral part of various socio-religious functions in this community. They use seeds to count their prayers from plants like *Coix lacryma jobi* L, *Pisum sativum* L., *Melia azedarach* L. and *Ziziphus mauritiana* Lamk. The cultivation of *Pogostemon cablin* (Blanco) Benth. in graveyards, mosque campuses and home-gardens indicate the community's love for fragrant plants.

Folk-songs and folk proverbs of the community bring out the mention of various plants and their utilities; this marks their unique traditional wisdom related to selection and conservation of plants. Even the plants commonly used as food and beverage (FB) find mention in both folk-songs and folk-proverbs.

Statistical analysis of the various utilities of plants that find mention in folk songs and folk proverbs has been carried out. The hypothesis ( $H_0$ ) tested was "there is no difference between the various uses of plants used in Folk-songs and Folk-proverbs". The test was found to be significant because the plants used in folk-songs and folk-proverbs were not very different considering their utilities as medicinal, food and beverages, material culture, socio-religious aspects etc.

Illustrations were also provided using diagrams of various tools, comparing families of plants, pie charts showing plant parts used as medicine, plants used to treat

diseases/health problems, potentials/utilities (FB, M, MC, SR and CP) of plants used in folk songs and folk-proverbs, plants used in the making of tools, plant parts used in socio-religious functions, plants found in folk-proverbs and folk-songs actually cultivated and so forth.

The study points out that, plants have been ethnobotanically used by Muslim (*Pangal/Meitei-Pangal*) of Manipur for multiple purposes. Plants used in preparing traditional medicine require conservation and further research to understand their medicinal properties better. Enterprises of local physicians who prepare such medicines should be encouraged. Artisans who manufacture cheap tools for local use should be supported for sustainability. In this regard, there exists scope for youth employment through such small scale industries around the villages. The Muslim community of Manipur share a close relationship with plants promoting ecological balance. Cultivation of various wild plants domestically by the community adds to the spirit of protection and conservation of plants. Cultivation and structured marketing of useful plants can promote socio-economic growth in the Muslim (*Pangal/Meitei-Pangal*) community of Manipur and others in general. The results of this study documents the unique knowledge of this community regarding plants and adds to the global literature of ethnobotanical heritage. This thesis has attempted to fill the existing gap of lack of documentation with respect to the Muslim (*Pangal/Meitei-pangal*) community of Manipur.

#### **Scope for Further Work and Application:**

- (1) Higher research can be promoted to extract bioactive compounds from medicinal plants. The practice of traditional healers who use plants to prepare medicines can be encouraged and mainstreamed.
- (2) Rich material culture via the use of bamboo plants is noted. The employability aspects of youths in bamboo based small scale industries can be explored.
- (3) This information gathered in this research can support government authorities/related organisations/NGOs/other stakeholders in the planning of

development work that would benefit local physicians, artisans and general public in the community.

- (4) People can be encouraged to grow plants such as *Areca catechu* L, *Cocos nucifera* L, *Curcuma longa* L., *Saccharum officinarum* L, *Ipomoea batatas* L, *Musa balbisiana* Colla, *Bambusa kingiana* Gamble, *Bambusa tulda* Roxb, *Dendrocalamus giganteus* Munro, *Capsicum frutescens* L. These plants are potential food plants and have good economic value in the markets.