



# Survey of Sacred Plants and Their Plant-derived Products in Women's Markets, Manipur, North East India

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## ABSTRACT

**Background:** Sacred plants in Manipur (Northeast India) have important roles in religious and cultural practices among the Meitei and Meitei Hindu communities. They are part of rituals, festivals, taboos, traditional ecological knowledge (TEK) and support biodiversity in the region. Unfortunately, increasing impacts from human activities are affecting the availability of the sacred plants and their associated significance/cultural value.

**Methods:** A field-based survey of three prominent women's markets (Ima Keithel, Nambol Keithel and Singjamei Keithel) from two districts in Manipur was conducted over May-July (2024 and 2025). Plants were collected from each market, followed by taxonomic identification of plants using standard books and other reputable databases. Plant descriptions were also gathered through purposive interviews with thirty elderly participants (ten from each market) and confirmed with the traditional managers (Arangphams, Maiba and Maibi). Plant scientific names were verified using the GBIF database and other reputable sources.

**Result:** A total of 49 taxa belong to 43 genera and 30 families. The family with the highest number of recorded species is Rosaceae, followed by Asteraceae, Cucurbitaceae and Zingiberaceae. The site with the highest number of species was Ima Keithel. Most plants recorded for species have medicinal properties and are used in major rituals such as Cheiraoba and Lai-haraoba. The identified threats are cultural erosion, habitat destruction, climate change, pollution and over-harvesting, indicating an urgent need for conservation efforts and the revitalization of TEK.

**Key words:** Ema Keithel, GBIF, Indigenous knowledge, Medicinal plants.

## INTRODUCTION

Religion is a set of ideas about something that we humans believe to be outside of ourselves. Its nature is universal. It is a means of connecting people by directing their emotions. It is also a means of coping with the things outside of our control and for which we have no explanation. The two main pillars of culture are religion and life cycle customs. Life cycle rituals are the occasions or celebrations that designate significant turning points in a person's life. These customs signify the transition from one period of a person's life to the next. These rituals are made more meaningful and practical by religion (Singh, 2015).

Our entire Manipuri culture is reflected in the "Lai-haraoba." It displays the Manipuri people's charm and happiness, as well as their strengths and weaknesses and beliefs. Sacred grove degradation, on the other hand, could result from focusing more on "Lai-haraoba" in cultural programs and less on the groves' conservation needs. A variety of traditional, religious, cultural and ritualistic beliefs and practices that promote the conservation of certain wildlife and cultivated plants are connected to the ancient Manipur's love and care for them. Meiteis are one of the indigenous inhabitants of Manipur state in North-eastern part of India. Some Meiteis are Vaisnavite Hindus. The term "traditional ecological knowledge" describes the body of information that native and indigenous peoples have accumulated over many

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centuries from close observation and interaction with their surroundings. Intimate and in-depth knowledge of flora, fauna and natural phenomena; creation and application of suitable technologies for trapping, hunting, fishing and farming; and a comprehensive understanding, or "world view," analogous to the scientific field of ecology are all included (Inglis, 1993).

The present study has been undertaken to assess the traditional knowledge in the utilisation of religious/sacred plants in rituals of Meitei and Meitei Hindu people based on the collections of plant species from three Women's markets.

## MATERIALS AND METHODS

### Study area

Manipur is a state in Northeast India, with its capital city being Imphal. The Indian states of Mizoram border it to the South, Assam to the West and Nagaland to the North (Fig 1). The size of the state is 22,327 square kilometers. The state has an abundance of flora owing to its location at the junction of the Himalayas and Indo-Burma, along with many different climates and edaphic factors. The region within the Indo-Burma biodiversity mega hotspot was rated the seventh greatest hotspot, as per the "Hotspots of the world" (Myers *et al.*, 2000).

The Ima Keithel (Meitei: Mothers' market), also known as the Nupi Keithel (Women's market) or Khwairamband Keithel (Khwairamband market), is a unique female-only market (Largest women's market in Asia) situated in Imphal West District of Manipur, India (24°48'28.88"N, 93°56'2.57"E). All vendors and entrepreneurs in the market are women and therefore, the market is entirely run by women.

Nambol is considered one of the places to go for education in Bishnupur district of Manipur. After Khwairamband Bazar in Manipur, Nambol Bazar (located at coordinates, 24°48'27.75"N, 93°56'0.61"E) is the second most heavily used market in this area. The Nambol Bora, a local specialty is famous at this market. This market is also very heavily geared towards only women. The main location that draws visitors to Manipur is the Loktak lake located in Bishnupur District at a distance of 48 km from Imphal City and is also the largest freshwater lake in North-East India. Singjamei Keithel (located at 24°46'53.98"N, 93°56'22.77"E) in Imphal is also a bustling commercial hub. The area in which our research was conducted is one

of the largest and oldest markets in the country. This market has a large assortment of items such as Manipuri traditional handicrafts, beautiful jewellery, awesome textiles, an array of fruits and vegetable, etc.

### Survey, collection and identification of plants

Several collections were undertaken in 2 districts of Manipur in May-July (2024 and 2025). Plants were collected and identified for their sacred uses. Taxonomic identification was carried out using standard books of IBSD and BSI (2021) and ICAR (2004) and sources from World Flora Online, Indian Flora Online, Encyclopedia of Medicinal Plants in Manipur, Plants of the World Online and Tropicos.

A study of sacred plants was conducted in the above three markets by interviewing with 30 respondents. 10 elderly persons (above 60 years of age) comprising of 10 respondents from each market were selected purposively and interviewed to assess their traditional knowledge regarding the utilisation of bioresources in rituals and cultural life of the people. Knowledgeable persons (Arangphams, event managers of the traditional rituals of Manipur) of villages were interviewed about the sacred plants and the information collected was verified with the published literature (Singh and Singh, 1994; Trisal and Manihar, 2004; Laishram *et al.*, 2019; Singh and Rajkumari 2021; Devi *et al.*, 2024a,b; Devi *et al.*, 2024). Botanical and family names of plant species were updated with the help of Global Biodiversity Information Facility (GBIF) database. Some mistakes and others found in botanical names in the book of Singh (Singh, 2006) were corrected and updated.

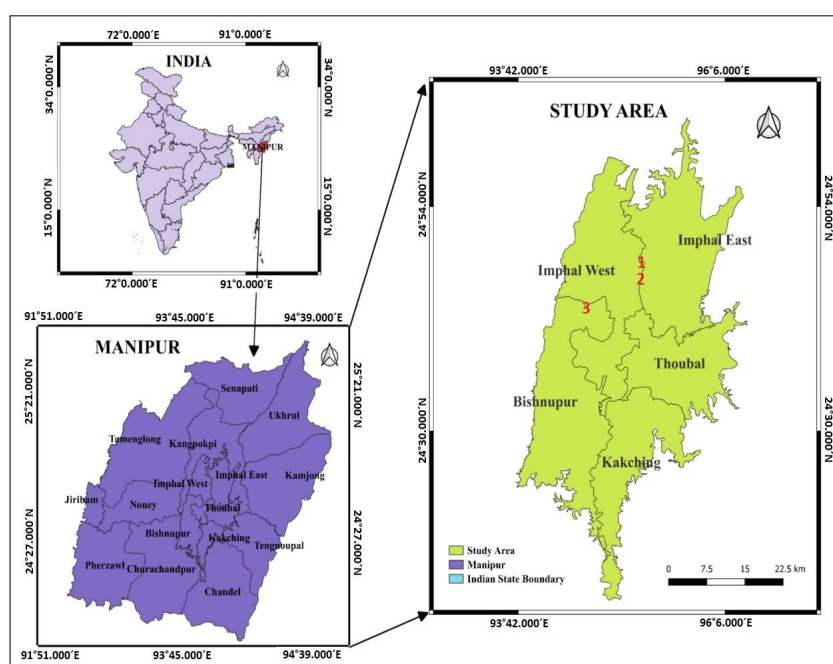


Fig 1: Location of study area, 1. Ima keithel, 2. Singjamei keithel and 3. Nambol keithel.

### Data collection from local ritual managers

The indigenous ritual managers known as Arangphams (in male), Maiba and Maibi were chosen as informants for this study because they are recognised authorities in planning, designing, organizing and managing most of the traditional ritual events of the Meiteis and Meitei Hindus of Manipur. All of the gathered plants were provided to them in the form of fresh plants, images, local names, etc. to aid in their understanding. Local names, botanical names, family names and the dissemination of religious knowledge were all documented.

### RESULTS AND DISCUSSION

A total of 49 taxa of sacred plants belonging to 43 genera and 30 families were documented in the present study. The most dominant family include Rosaceae with 7 species followed by Asteraceae with 5 species; Cucurbitaceae and zingiberaceae with 4 species each; Nymphaeaceae and solanaceae with 3 species each; Poaceae, Magnoliaceae, Oleaceae and Anacardiaceae with 2 species each and rest of 16 families having only 1 species (Table 1). Some sacred plants are shown in Fig 2-4.

The Meitei's priest and priestess, Maiba and Maibi, are significant figures in a number of celebrations and rituals. Maibi (pl. = Maibis) takes a major role during the festival of Lai-haraoba, Apokpa-khurumba and Laisang Hangba. She carries out rites (worshipping of the ancestor deities of a particular salai/yeik, i.e. clan). This kind of Maibi is distinct from the contemporary midwife Maibi in both appearance and manner of attire. Some Maibis work as midwives, assisting in childbirth. Maiba is typically used in Lai-haraoba, death ceremonies and conventional medical practices. Both of them served as God's emissaries, making pleas on behalf of people and the well-being of society. Various sacred plants and their derivatives are used by both Maiba and Maibi during the festivals and activities mentioned above. Similar to this, depending on the various rites, Hindu priests and priestesses use different plants and their products.

On the other hand, the taboos and beliefs surrounding the sylvan deities (Umanglai) in the forest areas are limited to any kind of disruption of the local flora and wildlife. These social divisions support the idea of sacred groves by aiding in the preservation of the organism as a whole. The Meiteis, a major community in Manipur, execute the annual pleasing of the deities in order to worship them and win their favour. Indigenous cultural acts and rituals carried out by the locals in sacred groves are a means of biodiversity conservation. Across a broad range of ecosystems, sacred trees/plants support the preservation of uncommon and endemic species. Preserved holy forests act as havens for endangered species and are rich sources of precious medicinal and other high-value plants (Khumbongmayum *et al.*, 2005). Most of the plants indicated in Table 1 are essential for Umanglai.



Fig 2: 1. *Nymphaea nouchali*, 2. *Musa x paradisiaca*, 3. *Pinus kesiya* var. *langbianensis*, 4. *Magnolia hodgsonii*, 5. *Phlegmariurus squarrosus*, 6. *Piper betle*.



Fig 3: 7. *Magnolia champaca*, 8. *Nicotiana tabacum*, 9. *Areca catechu*, 10. *Saccharum officinarum*, 11. *Citrus medica*, 12. *Musa x paradisiaca* (leaves).

**Table 1:** List of sacred plants/trees occurred at different markets (= Keithels) of Manipur.

| Local name                                                                | Botanical name                                        | Family         | Name of ritual/mode of use                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------|-------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chakhao                                                                   | <i>Oryza sativa</i> L.                                | Poaceae        | Chakhao is used to prepare unique delicacies in religious and cultural ceremonies; Cooked chakhao rice is served with 'Kheer' (a dessert) in usob (religious feast); it is also served as chakhao kheer in Chakumba (First rice eating ceremony). |
| Champra                                                                   | <i>Citrus × limon</i> (L.) Burm.fil.                  | Rutaceae       | Ushop (Ritual feast)                                                                                                                                                                                                                              |
| Chandan                                                                   | <i>Santalum album</i> L.                              | Santalaceae    | Used in ritual after death                                                                                                                                                                                                                        |
| Chorphon                                                                  | <i>Elaeocarpus floribundus</i> Blume                  | Elaeocarpaceae | Ushop (Ritual feast)                                                                                                                                                                                                                              |
| Chungou                                                                   | <i>Saccharum officinarum</i> L.                       | Poaceae        | Worshipping of Lainingthou god of Meitei community                                                                                                                                                                                                |
| Heibung                                                                   | <i>Garcinia pedunculata</i> Roxb.                     | Clusiaceae     | Ushop (Ritual feast)                                                                                                                                                                                                                              |
| Heijaang                                                                  | <i>Citrus medica</i> L.                               | Rutaceae       | Wedding ceremony; Tarpon                                                                                                                                                                                                                          |
| Heikha                                                                    | <i>Prunus persica</i> (L.) Stokes                     | Rosaceae       | Luhongba, Heijingpot (pre-wedding ceremony of Meitei community)                                                                                                                                                                                   |
| Heikru                                                                    | <i>Phyllanthus emblica</i> L.                         | Phyllanthaceae | Luhongba (Wedding ceremony)                                                                                                                                                                                                                       |
| Heining                                                                   | <i>Spondias pinnata</i> (L.fil.) Kurz                 | Anacardiaceae  | Wedding ceremony                                                                                                                                                                                                                                  |
| Heinou                                                                    | <i>Mangifera indica</i> L.                            | Anacardiaceae  | Luhongba                                                                                                                                                                                                                                          |
| Heirikhagok                                                               | <i>Aegle marmelos</i> (L.) Corrêa                     | Rutaceae       | Used in Durga puja                                                                                                                                                                                                                                |
| Heiribob                                                                  | <i>Citrus hystrix</i> DC.                             | Rutaceae       | Durga puja                                                                                                                                                                                                                                        |
| Heitoop                                                                   | <i>Malus docynioides</i> C.K. Schneid.                | Rosaceae       | Some Meitei ritual ceremonies                                                                                                                                                                                                                     |
| Hidak mana                                                                | <i>Nicotiana tabacum</i> L.                           | Solanaceae     | Wedding ceremony                                                                                                                                                                                                                                  |
| Khoiju                                                                    | <i>Isodon ternifolius</i> (D. Don) Kudô               | Lamiaceae      | Repels evil spirits every household of the Meitei community smoked the house during Lantathangja; sometimes, used immediately this plant to repel evil spirit when a person is demon-possessed                                                    |
| Kihom                                                                     | <i>Ananas comosus</i> (L.) Merr.                      | Bromeliaceae   | Jagannath Rath Yatra; Wedding ceremony; rituals after death; rituals after birth; used in worshipping other Gods                                                                                                                                  |
| Kundo                                                                     | <i>Jasminum sambac</i> (L.) Aiton                     | Oleaceae       | Luhongba                                                                                                                                                                                                                                          |
| Kurao angouba                                                             | <i>Erythrina</i> sp.                                  | Fabaceae       | A person who wears a piece of Kurao angouba wood in the form of Tabiz is considered safe from the evil spirits. Most infants are made to wear this.                                                                                               |
| Kusoom lei                                                                | <i>Carthamus tinctorius</i> L.                        | Asteraceae     | In Chairouba, spatulas made of this wood are used in cooking as a ritual practice.                                                                                                                                                                |
| Kwa mana                                                                  | <i>Piper betle</i> L.                                 | Piperaceae     | As an offering to God at Cheiraoba festival                                                                                                                                                                                                       |
| Kwa maru                                                                  | <i>Areca catechu</i> L.                               | Arecaceae      | Marriage ceremony; rituals after death; rituals after birth; used in worshipping other Gods                                                                                                                                                       |
| Laangthrei                                                                | <i>Eupatorium cannabinum</i> subsp. <i>cannabinum</i> | Asteraceae     | Wedding ceremony; rituals after death; rituals after birth; used in worshipping other Gods                                                                                                                                                        |
| Laphoi (Banana fruit), laphu (Banana stem) and laphoi mana (Banana leave) | <i>Musa × paradisiaca</i> L.                          | Musaceae       | Umang Lai-haraoba; used commonly in other rituals                                                                                                                                                                                                 |
|                                                                           |                                                       |                | Luhongba; rituals after death; rituals after birth                                                                                                                                                                                                |

Table 1: Continue..

Table 1: Continue..

|                       |                                                                             |               |                                                                                                                                                                                                                                                                          |
|-----------------------|-----------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lashing Ahingba       | <i>Gossypium arboreum</i> L.                                                | Malvaceae     | Used in apokpa god; Lai-haraoba; Wedding ceremony                                                                                                                                                                                                                        |
| Leihao                | <i>Magnolia champaca</i> (L.) Baill. ex Pierre                              | Magnoliaceae  | Meitei rituals                                                                                                                                                                                                                                                           |
| Leikham               | <i>Goniothalamus sesquipetalis</i> (Wall.) Hook.f. and Thomson              | Annonaceae    | Repels evil spirits every household of the Meitei community smoked the house during Lamtathangja; sometimes, used immediately this plant to repel evil spirit when a person is demon-possessed<br>Used commonly in rituals for the new born child, Wedding ceremony etc. |
| Leisang khekwaiba     | <i>Phlegmariurus squarrosus</i> (G.Forst.) Á. Löve and D. Löve              | Lycopodiaceae |                                                                                                                                                                                                                                                                          |
| Loklei                | <i>Hedychium flavum</i> Roxb.                                               | Zingiberaceae | Cheiraoba                                                                                                                                                                                                                                                                |
| Malika                | <i>Jasminum officinale</i> L.                                               | Oleaceae      | Some Meitei ritual ceremonies                                                                                                                                                                                                                                            |
| Manahei               | <i>Terminalia chebula</i> Retz.                                             | Combretaceae  | Used at the time of wedding ceremony; Swasthi puja                                                                                                                                                                                                                       |
| Mekrook               | <i>Canarium strictum</i> Roxb.                                              | Burseraceae   | The resins are burnt above the charcoal during rituals                                                                                                                                                                                                                   |
| Namara                | <i>Amomum dealbatum</i> Roxb.                                               | Zingiberaceae | Cheiraoba                                                                                                                                                                                                                                                                |
| Paan                  | <i>Colocasia esculenta</i> (L.) Schott                                      | Araceae       | Used after connection of God from water body; used in Eepan Thaba (First ceremony for Meitei community observed on the 6 <sup>th</sup> day after the child birth);                                                                                                       |
| Poollei               | <i>Alpinia nigra</i> (Gaertn.) Burt                                         | Zingiberaceae | Cheiraoba                                                                                                                                                                                                                                                                |
| Sagoidaak/sagol hidak | <i>Datura stramonium</i> L.                                                 | Solanaceae    | <i>Datura</i> flowers are used to worship Lord Shiva in almost all parts of India and abroad                                                                                                                                                                             |
| Sanarei               | <i>Tagetes erecta</i> L.                                                    | Asteraceae    | Govardhan puja, Diwali festival (the festival of light celebrated by Hindus)                                                                                                                                                                                             |
| Sem                   | <i>Malus pumila</i> Poit. and Turpin ?                                      | Rosaceae      | Ritual ceremonies                                                                                                                                                                                                                                                        |
| Thabi                 | <i>Cucumis sativus</i> L.                                                   | Cucurbitaceae | Some Meitei and Meitei Hindu ritual ceremonies                                                                                                                                                                                                                           |
| Thambal (Angangba)    | <i>Nelumbo nucifera</i> Gaertn.                                             | Nelumbonaceae | Lotus, representing purity and the seat of Hindu gods; used in any Hindu related festivals                                                                                                                                                                               |
| Tharo                 | <i>Nymphaea nouchali</i> Burm.fil.                                          | Nymphaeaceae  | Meitie and Meitei Hindu ritual ceremonies                                                                                                                                                                                                                                |
| Tharo angouba         | <i>Nymphaea alba</i> L.                                                     | Nymphaeaceae  | Some Meitei and Meitei Hindu ritual ceremonies                                                                                                                                                                                                                           |
| Thoiding              | <i>Sesamum indicum</i> L.                                                   | Pedaliaceae   | Wedding ceremony; Tarpon                                                                                                                                                                                                                                                 |
| Torbot                | <i>Benincasa hispida</i> (Thunb.) Cogn.                                     | Cucurbitaceae | Sacrifice of this fruit during Durga puja                                                                                                                                                                                                                                |
| Tumba                 | <i>Lagenaria siceraria</i> (Molina) Standl.                                 | Cucurbitaceae | Use in cleaning of Meitei temple                                                                                                                                                                                                                                         |
| Uchaan                | <i>Pinus kesiya</i> var. <i>langbianensis</i> (A.Chev.) Gausson ex N.-S.Bui | Pinaceae      | Shraddha ceremony; Pujas to chase out evil spirits by Meitei community                                                                                                                                                                                                   |
| U-thambal             | <i>Magnolia hodgsonii</i> (Hook.f. and Thomson) H.Keng                      | Magnoliaceae  | Mainly used in diet, Korifaba; even in other Meitei ritual ceremonies                                                                                                                                                                                                    |
| Yaingang              | <i>Curcuma caesia</i> Roxb.                                                 | Zingiberaceae | Lai-haraoba; Wedding ceremony; Manipuri new year (Cheiraoba); used to repel evils                                                                                                                                                                                        |
| Yubi                  | <i>Cocos nucifera</i> L.                                                    | Arecaceae     | Wedding ceremony; Rituals after death; rituals after birth; used in worshipping other Gods                                                                                                                                                                               |

**Table 2:** Species reported in May-July (2024 and 2025) at study areas in two districts of Manipur.

| Local name                                                                         | Botanical name                                                 | Site 1      | Site 2         | Site 3            |
|------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------|----------------|-------------------|
|                                                                                    |                                                                | Ima Keithel | Nambol keithel | Singjamei keithel |
| Chakhao                                                                            | <i>Oryza sativa</i> L.                                         | M, J, Ju    | M, J, Ju       | Ju                |
| Champra                                                                            | <i>Citrus × limon</i> (L.) Burm.fil.                           | M, J, Ju    | M, J, Ju       | M, J, Ju          |
| Chandan                                                                            | <i>Santalum album</i> L.                                       | M, J, Ju    | M, J, Ju       | -                 |
| Chorphon                                                                           | <i>Elaeocarpus floribundus</i> Blume                           | M, J, Ju    | M, J, Ju       | M, J              |
| Chungou                                                                            | <i>Saccharum officinarum</i> L.                                | M, J, Ju    | J, Ju          | M, J, Ju          |
| Heibung                                                                            | <i>Garcinia pedunculata</i> Roxb.                              | M, J        | J, Ju          | M, J              |
| Heijaang                                                                           | <i>Citrus medica</i> L.                                        | M, J, Ju    | J, Ju          | M, J              |
| Heikha                                                                             | <i>Prunus persica</i> (L.) Stokes                              | M, J, Ju    | J, Ju          | M, J              |
| Heikru                                                                             | <i>Phyllanthus emblica</i> L.                                  | M, J, Ju    | J, Ju          | M, J, Ju          |
| Heining                                                                            | <i>Spondias pinnata</i> (L.fil.) Kurz                          | J           | J, Ju          | J                 |
| Heinou                                                                             | <i>Mangifera indica</i> L.                                     | M, J, Ju    | M, J           | M, J              |
| Heirikhagok                                                                        | <i>Aegle marmelos</i> (L.) Corrêa                              | J           | Ju             | J                 |
| Heiribob                                                                           | <i>Citrus hystrix</i> DC.                                      | M, J, Ju    | M, J, Ju       | M, Ju             |
| Heitoop                                                                            | <i>Malus docynioides</i> C.K.Schneid.                          | M, J        | J              | M, J              |
| Hidak Mana                                                                         | <i>Nicotiana tabacum</i> L.                                    | M, J, Ju    | J, Ju          | M, J              |
| Khoiju                                                                             | <i>Isodon ternifolius</i> (D.Don) Kudô                         | M, J, Ju    | M, J, Ju       | M, J, Ju          |
| Kihom                                                                              | <i>Ananas comosus</i> (L.) Merr.                               | M, J, Ju    | M, J, Ju       | M                 |
| Kundo                                                                              | <i>Jasminum sambac</i> (L.) Aiton                              | J           | J, Ju          | J, Ju             |
| Kurao angouba                                                                      | <i>Erythrina</i> sp.                                           | M, J        | Ju             | J, Ju             |
| Kusoom lei                                                                         | <i>Carthamus tinctorius</i> L.                                 | M           | M, Ju          | M                 |
| Kwa mana                                                                           | <i>Piper betle</i> L.                                          | M, J, Ju    | M, J, Ju       | M, J              |
| Kwa maru                                                                           | <i>Areca catechu</i> L.                                        | M, J, Ju    | M, J           | M, J              |
| Laangthrei                                                                         | <i>Eupatorium cannabinum</i> subsp. <i>cannabinum</i>          | M, J, Ju    | Ju             | M                 |
| Laphoi (Banana fruit),<br>laphu (Banana stem)<br>and laphoi mana<br>(Banana leave) | <i>Musa × paradisiaca</i> L.                                   | M, J, Ju    | M, J*, Ju      | M, J, Ju          |
| Lashing ahingba                                                                    | <i>Gossypium arboreum</i> L.                                   | M, J, Ju    | Ju             | M                 |
| Leihao                                                                             | <i>Magnolia champaca</i> (L.) Baill. ex Pierre                 | M, J, Ju    | M              | M, J, Ju          |
| Leikham                                                                            | <i>Goniothalamus sesquipedalis</i> (Wall.) Hook.f. and Thomson | M           | M, Ju          | M                 |
| Leisang khekwaiba                                                                  | <i>Phlegmariurus squarrosus</i> (G.Forst.) Á.Löve and D.Löve   | M, Ju       | M              | M, Ju             |
| Loklei                                                                             | <i>Hedychium flavum</i> Roxb.                                  | M, J        | M, J, Ju       | M                 |
| Malika                                                                             | <i>Jasminum officinale</i> L.                                  | -           | Ju             | J                 |
| Manabei                                                                            | <i>Terminalia chebula</i> Retz.                                | M, J        | J              | M, J              |
| Mekrook                                                                            | <i>Canarium strictum</i> Roxb.                                 | M, J, Ju    | M, J, Ju       | M, J, Ju          |

Table 2: Continue...

Table 2: Continue..

|                      |                                                                             |          |          |          |
|----------------------|-----------------------------------------------------------------------------|----------|----------|----------|
| Namara               | <i>Anomum dealbatum</i> Roxb.                                               | M, J     | M, J     | M        |
| Paan                 | <i>Colocasia esculenta</i> (L.) Schott                                      | M, J     | Ju       | M, J     |
| Poollei              | <i>Alpinia nigra</i> (Gaertn.) Burt                                         | M, J     | M, J     | J        |
| Sagidaak/sagol hidak | <i>Datura stramonium</i> L.                                                 | M        | Ju       | M        |
| Sanarei              | <i>Tagetes erecta</i> L.                                                    | Ju       | -        | -        |
| Sem                  | <i>Malus pumila</i> Polit. and Turpin?                                      | M, J, Ju | M, J, Ju | M, J     |
| Thabi                | <i>Cucumis sativus</i> L.                                                   | M, J, Ju | M, J, Ju | M, J, Ju |
| Thambal (Angangba)   | <i>Nelumbo nucifera</i> Gaertn.                                             | M, J, Ju | M, J, Ju | M, J     |
| Tharo                | <i>Nymphaea nouchali</i> Burm. fil.                                         | M, J, Ju | M, J, Ju | M, J, Ju |
| Tharo angouba        | <i>Nymphaea alba</i> L.                                                     | Ju       | Ju       | M, J     |
| Thoiding amuba       | <i>Sesamum indicum</i> L.                                                   | M, J, Ju | M, J     | J        |
| Torbot               | <i>Benincasa hispida</i> (Thunb.) Cogn.                                     | M, J, Ju | M, Ju    | Ju       |
| Tumba                | <i>Lagenaria siceraria</i> (Molina) Standl.                                 | M, J, Ju | Ju       | -        |
| Uchaan               | <i>Pinus kesiya</i> var. <i>langbianensis</i> (A.Chev.) Gausson ex N.-S.Bui | M, J, Ju | M, J     | M, J     |
| U-thambal            | <i>Magnolia hodgsonii</i> (Hook.f. and Thomson) H.Keng                      | M        | M        | -        |
| Yaingang             | <i>Curcuma caesia</i> Roxb.                                                 | M        | -        | M        |
| Yubi                 | <i>Cocos nucifera</i> L.                                                    | M, J, Ju | J        | Ju       |

\*Laphu not found in June (Nambol Keihel) though it is very common.

M = May, J = June, Ju = July.

Fig 4: 13. *Nelumbo nucifera*, 14. *Garcinia pedunculata*, 15. *Curcuma caesia*, 16. *Terminalia chebula*, 17. *Malus docynioides*, 18. *Cocos nucifera*.

Maximum and minimum numbers of sacred plants were reported from Ima Keithel and Singjamei Keithel respectively in our present study (Table 2). It has been discovered that the majority of the herbs utilised in the ceremonies have therapeutic qualities. To preserve the knowledge of significant indigenous plants that are closely related to daily lives, the community devised various protocols. To honour the significance of the plants, they create a variety of cultural practices, including festivals, ceremonies, rituals and religion. Among the notable celebrations are Lai-haraoba and Sajibu Cheiraoba. The significance of plants is increased and the next generation is made more familiar with them through the festivals and ceremonies. To a certain extent, taboos and traditional beliefs aid in protecting sacred plants from the growing urbanisation.

The current research showed that a lot of sacred and medicinal plants were used by the Meitei community. This indicates that there is strong link between preserving biodiversity and continuing with the traditional culture/nature practices of the Meitei people. The same conclusion was made by Kumar *et al.* (2023) when they looked at the sacred grove ecosystems of the Western Ghats. These authors found that protecting these areas *via* ritual means has greatly contributed to protecting the diversity of plants and creating a bank of knowledge surrounding how to use them. In addition, indigenous plant knowledge has been shown to have a significant role in traditional (non-Western) medicine, community food security and sustainable use of

local resources in studies regarding wild edible plants in the Himalayas (Nisha and Rao, 2021). In addition, there has been an increase in global interest toward conserving and using neglected indigenous crops and highly-valued culturally relevant plant species due to their resilience to climate change, social/cultural value and their role in promoting sustainable development (Mutetwa *et al.*, 2026).

## CONCLUSION

Throughout history, people have used different kinds of plant life in a religious fashion. Across cultures, many have created rites, taboos and customs that encourage preserving holy and healing plants. An inventory of available plant species in different regions, information on which communities utilize them, the threats to these plants and the strategies used to protect them is still incomplete at this point in time. There is an ever-increasing amount of sacred plants in those regions due to factors such as the destruction of their natural habitat, climate change, pollution, cultural erosion and over-harvesting. Effective ways to conserve and manage the mountainous and valley ecosystems where these plants grow in an environmentally friendly way will require a collaborative effort between professionals and the local communities. Documenting the existence of TEK and revitalizing it is critical in order to scientifically manage the conservation of sacred plants for future generations.

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## Disclaimers

The views and conclusions expressed in this article are solely those of the authors and do not necessarily represent the views of their affiliated institutions. The authors are responsible for the accuracy and completeness of the information provided, but do not accept any liability for any direct or indirect losses resulting from the use of this content.

## Conflict of interest

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