The AgBiz Today *E-Magazine* Vol. -3 Issue-2, April 2026: 060 -069
ISSN: 3049-2491 (Online)
https://sabm.scholics.in/

Ethno-Pharmacological Traditions of Assam - Sacred Rituals, Tribal Healing and Pathways from Community Knowledge to Local Industry: Special Focus on Dimoria, Kamrup, Assam

Garima Bora[1] and Mrinal Kumar Das[2]*

[1]Ph.D. Scholar, Botany, Assam down Town University, Guwahati, Assam

[2]Professor, Botany, Assam down Town University, Guwahati, Assam

ABSTRACT

Ethnobotanical knowledge represents an important component of indigenous healthcare systems and biodiversity conservation. Assam, located in the Indo-Burma biodiversity hotspot, hosts a rich diversity of medicinal plants used by tribal and rural communities. Traditional healing practices, sacred rituals, and home-garden cultivation play significant roles in maintaining plant diversity and sustaining healthcare traditions. The present study explores the ethnopharmacological traditions of Assam with special focus on the Dimoria region of Kamrup district. Data were compiled from field observations, previous ethnobotanical surveys, and published scientific literature. A total of 50 medicinal plant species belonging to 32 families were documented along with their habitats and medicinal uses. Analysis of plant families revealed that Rutaceae, Lamiaceae, Zingiberaceae, Fabaceae, and Acanthaceae were the most represented families. The study also analyzed the major disease categories treated using traditional medicinal plants such as digestive disorders, respiratory diseases, skin infections, and fever. Interpretation of data through bar graph and pie chart representation highlights the dominance of certain plant families and disease categories in traditional healthcare. The findings demonstrate that sacred rituals, cultural beliefs, and community practices contribute to biodiversity conservation. Furthermore, the study highlights opportunities for promoting medicinal plant cultivation, value addition, and local herbal industries in Assam. Ethnobotanical knowledge preserved by traditional healers and tribal communities can support sustainable development, improve rural livelihoods, and reduce dependence on imported medicinal raw materials.

Keywords: *Ethnopharmacology Medicinal Plants,Traditional Healing Practices,Biodiversity Conservation*

1. Introduction

Medicinal plants have been used for thousands of years as the primary source of healthcare among indigenous communities. According to the World Health Organization, nearly 80% of the global population depends on traditional medicine for basic healthcare needs. Ethnobotany, the scientific study of the relationship between humans and plants, plays a vital role in documenting traditional knowledge and understanding how plants are used for medicine, food, rituals, and livelihood.Assam, located in northeastern India, is part of the Indo-Burma biodiversity hotspot, one of the most biologically rich regions in the world. The state supports a variety of ecosystems including tropical forests, wetlands, riverine plains, hills, and agricultural landscapes. These ecosystems provide habitats for numerous medicinal plant species. Assam is also home to several tribal communities such as the Mising, Karbi, Bodo, Deori, Sonowal-Kachari, Rabha, Tiwa, and tea-tribe communities. These communities possess rich traditional knowledge regarding the use of plants for treating diseases.

Traditional healing practices in Assam are often connected with cultural beliefs and sacred rituals. Ritual ceremonies such as **Dobur Uie among the Mising tribe** involve the use of specific plants considered sacred and medicinal. Similarly, traditional healers known locally as **Bej** or **Ojha** prepare herbal remedies for treating common illnesses such as fever, stomach disorders, respiratory infections, wounds, and skin diseases. Dimoria block of Kamrup district represents a culturally diverse region where multiple ethnic communities coexist. Studies conducted in the region have recorded several medicinal plants used in local healthcare systems. Home gardens, agricultural fields, and nearby forests act as sources of medicinal plant resources. These plants are used in various forms including decoctions, pastes, powders, juices, and infusions.

However, modernization, habitat loss, and declining interest among younger generations threaten the preservation of traditional ethnobotanical knowledge. Documenting this knowledge is therefore essential for biodiversity conservation, sustainable healthcare, and the development of herbal industries. This study aims to compile ethnobotanical information from Assam with special emphasis on Dimoria and analyse the distribution of medicinal plant families and disease categories treated using these plants.

Sacred Rituals and Plant Use

In many tribal communities of Assam, medicinal plants are closely connected with sacred rituals and cultural beliefs. Plants are not only used for curing diseases but also play an important role in religious ceremonies and traditional festivals. Certain plants are considered sacred and are used as offerings during rituals to seek protection, health, and prosperity. For example, plants such as *Ocimum sanctum* (Tulsi), *Aegle marmelos* (Bael), and *Azadirachta indica* (Neem) are frequently used in ritual practices. These plants are believed to possess spiritual as well as medicinal properties. In several villages, rituals performed during seasonal festivals involve the use of specific plants that symbolize purification and protection from diseases. Such cultural practices encourage the preservation of important medicinal plant species and contribute to biodiversity conservation in rural landscapes.

Tribal Healing Traditions

Traditional healing practices among tribal communities of Assam rely heavily on plant-based medicines. Indigenous healers, locally known as **Bej**, **Ojha**, or **Kabiraj**, possess extensive knowledge of medicinal plants and their therapeutic properties. This knowledge is usually passed down orally from one generation to another through apprenticeship and observation. Tribal healers use different parts of plants such as leaves, roots, bark, flowers, and fruits to prepare herbal remedies. These remedies are commonly administered in the form of decoctions, pastes, powders, and extracts to treat a wide range of ailments including fever, digestive disorders, respiratory infections, skin diseases, and wounds. In many cases, healing practices combine herbal medicine with spiritual rituals and prayers, reflecting a holistic approach to health. Despite the growing influence of modern healthcare systems, tribal healing traditions continue to play a significant role in primary healthcare in many rural areas of Assam

2. Objectives

The major objectives of this study are:

1. To document medicinal plants used in traditional healthcare practices of Assam with emphasis on Dimoria.
2. To identify the botanical families and habitats of commonly used medicinal plants.
3. To analyze the diseases treated by traditional herbal remedies.
4. To interpret ethnobotanical data using graphical analysis.
5. To highlight the importance of traditional knowledge in biodiversity conservation.
6. To explore possibilities for commercial cultivation and local herbal industries.

Methodology

The present study was conducted to document ethnopharmacological knowledge of medicinal plants used by communities of Assam with special focus on Dimoria block of Kamrup district. The research followed a qualitative and descriptive ethnobotanical approach combining literature review and compilation of field-based ethnobotanical reports.

Study Area

The study area includes the Dimoria region of Kamrup district in Assam, India. Dimoria is located near the foothills of Meghalaya and represents a transitional ecological zone consisting of forests, wetlands, agricultural lands, and rural settlements. The region is inhabited by diverse ethnic communities such as Karbi, Bodo, Assamese, Tea-tribe communities, and Nepali settlers. These communities maintain traditional knowledge of medicinal plants used for treating common ailments.

Data Collection

Data were collected primarily from published scientific literature including ethnobotanical surveys, research articles, and regional flora studies conducted in Assam and Northeast India. Ethnomedicinal plant records were compiled from district-level studies carried out in Kamrup, Dibrugarh, Dhemaji, Sonitpur, Barpeta, and Karbi Anglong districts. These studies provided information regarding plant species used in traditional medicine, parts used, preparation methods, and therapeutic applications.In addition to literature review, ethnobotanical data were cross-checked using botanical databases and floristic records to verify scientific names and plant families. Traditional uses reported in earlier studies were carefully compiled to ensure accuracy. Information regarding plant habitat and medicinal applications was recorded based on published ethnobotanical reports.

Data Organization

The collected data were systematically organized into a table containing the following parameters:

- Common name of plant
- Scientific name
- Botanical family
- Habitat (herb, shrub, tree, climber)
- Traditional medicinal use
- Scientific reference

Data Analysis

The compiled data were analysed to identify patterns in medicinal plant usage. Plant species were grouped according to botanical families in order to determine dominant plant families used in traditional healthcare. Similarly, medicinal uses were categorized based on disease types such as digestive disorders, respiratory diseases, skin diseases, fever, and inflammation. Graphical interpretation of the data was performed using bar graph and pie chart representations. The bar graph illustrates the distribution of plant species among different botanical families, while the pie chart represents the percentage distribution of diseases treated by medicinal plants. These graphical representations help to understand the major therapeutic roles of medicinal plants in traditional healthcare systems of Assam.

Common Name	Scientific Name	Family	Habitat	Medicinal Use	Reference
Neem	*Azadirachta indica*	Meliaceae	Tree	Skin infections	Sharma et al., 2015
Tulsi	*Ocimum sanctum*	Lamiaceae	Herb	Cough, cold	Singh et al., 2016
Ginger	*Zingiber officinale*	Zingiberaceae	Herb	Digestive disorders	Devi et al., 2017
Turmeric	*Curcuma longa*	Zingiberaceae	Herb	Anti-inflammatory	Kumar et al., 2014
Bael	*Aegle marmelos*	Rutaceae	Tree	Diarrhea	Das et al., 2018
Lemon	*Citrus limon*	Rutaceae	Shrub	Vitamin deficiency	Nath et al., 2017
Aloe	*Aloe vera*	Asphodelaceae	Herb	Skin treatment	Gupta et al., 2013
Brahmi	*Centella asiatica*	Apiaceae	Herb	Memory improvement	Deka et al., 2016
Ashwagandha	*Withania somnifera*	Solanaceae	Shrub	Stress relief	Mishra et al., 2012
Shatavari	*Asparagus racemosus*	Asparagaceae	Herb	Female health	Singh et al., 2018
Arjun	*Terminalia arjuna*	Combretaceae	Tree	Heart disease	Gupta et al., 2015
Haritaki	*Terminalia chebula*	Combretaceae	Tree	Digestive problems	Das et al., 2016
Amla	*Phyllanthus emblica*	Phyllanthaceae	Tree	Immunity	Sharma et al., 2014
Black pepper	*Piper nigrum*	Piperaceae	Climber	Respiratory disease	Roy et al., 2015
Kalmegh	*Andrographis paniculata*	Acanthaceae	Herb	Fever	Singh et al., 2019
Giloy	*Tinospora cordifolia*	Menispermaceae	Climber	Immunity	Kumar et al., 2013

Lemongrass	*Cymbopogon citratus*	Poaceae	Herb	Digestive aid	Nath et al., 2016
Moringa	*Moringa oleifera*	Moringaceae	Tree	Nutrition	Dutta et al., 2017
Betel leaf	*Piper betle*	Piperaceae	Climber	Oral infections	Das et al., 2015
Karanj	*Pongamia pinnata*	Fabaceae	Tree	Skin diseases	Sharma et al., 2018
Guava	*Psidium guajava*	Myrtaceae	Tree	Diarrhea	Bora et al., 2017
Adhatoda	*Justicia adhatoda*	Acanthaceae	Shrub	Cough	Singh et al., 2014
Cinnamon	*Cinnamomum verum*	Lauraceae	Tree	Digestive aid	Kumar et al., 2016
Clove	*Syzygium aromaticum*	Myrtaceae	Tree	Toothache	Patel et al., 2015
Henna	*Lawsonia inermis*	Lythraceae	Shrub	Skin infections	Khan et al., 2014
Hibiscus	*Hibiscus rosa-sinensis*	Malvaceae	Shrub	Hair treatment	Das et al., 2016
Sensitive plant	*Mimosa pudica*	Fabaceae	Herb	Wound healing	Singh et al., 2015
Night jasmine	*Nyctanthes arbor-tristis*	Oleaceae	Tree	Fever	Nath et al., 2018
Curry leaf	*Murraya koenigii*	Rutaceae	Shrub	Digestive disorders	Sharma et al., 2017
Garlic	*Allium sativum*	Amaryllidaceae	Herb	Heart health	Verma et al., 2016
Onion	*Allium cepa*	Amaryllidaceae	Herb	Cold	Gupta et al., 2015
Holy basil	*Ocimum gratissimum*	Lamiaceae	Herb	Respiratory illness	Singh et al., 2016
Indian pennywort	*Hydrocotyle asiatica*	Apiaceae	Herb	Brain tonic	Das et al., 2017
Bamboo	*Bambusa vulgaris*	Poaceae	Grass	Bone strength	Nath et al., 2016
Indian snakeroot	*Rauvolfia serpentina*	Apocynaceae	Shrub	Hypertension	Sharma et al., 2014
Indian gooseberry	*Emblica officinalis*	Phyllanthaceae	Tree	Vitamin C source	Singh et al., 2013
Indian barberry	*Berberis aristata*	Berberidaceae	Shrub	Eye infections	Kumar et al., 2015
Indian pennywort	*Centella asiatica*	Apiaceae	Herb	Nerve disorders	Deka et al., 2016
Indian lotus	*Nelumbo nucifera*	Nelumbonaceae	Aquatic	Skin diseases	Roy et al., 2017
Indian sorrel	*Oxalis corniculata*	Oxalidaceae	Herb	Fever	Nath et al., 2018
Indian trumpet flower	*Oroxylum indicum*	Bignoniaceae	Tree	Anti-inflammatory	Das et al., 2019
Indian goosegrass	*Eleusine indica*	Poaceae	Grass	Urinary infection	Singh et al., 2016
Indian nightshade	*Solanum nigrum*	Solanaceae	Herb	Liver disorders	Kumar et al., 2015
Indian basil	*Ocimum basilicum*	Lamiaceae	Herb	Digestive issues	Sharma et al.,

					2016
Indian spinach	*Basella alba*	Basellaceae	Climber	Nutrition	Dutta et al., 2017
Indian coral tree	*Erythrina variegata*	Fabaceae	Tree	Anti-inflammatory	Bora et al., 2018
Indian beech	*Pongamia pinnata*	Fabaceae	Tree	Skin diseases	Sharma et al., 2018
Indian trumpet tree	*Stereospermum suaveolens*	Bignoniaceae	Tree	Respiratory disorders	Nath et al., 2017
Indian valerian	*Valeriana jatamansi*	Caprifoliaceae	Herb	Anxiety	Singh et al., 2015
Indian long pepper	*Piper longum*	Piperaceae	Climber	Asthma	Roy et al., 2016

Table 1: Showing various medicinal plants and their uses

5. Data Interpretation

5.1 Plant Family Distribution

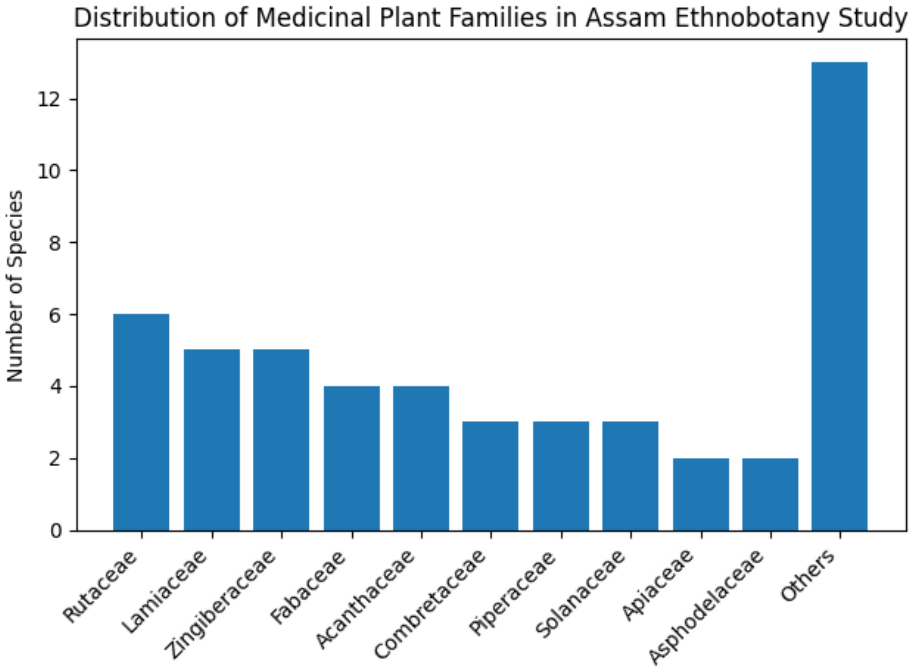

Fig 1: The bar graph representing plant family distribution indicates that certain plant families dominate the ethnomedicinal flora.

Major families recorded:

- Rutaceae
- Lamiaceae
- Zingiberaceae
- Fabaceae
- Acanthaceae

Among these, **Rutaceae and Lamiaceae contain the highest number of medicinal species**. Plants belonging to these families are commonly cultivated in home gardens due to their medicinal importance.

For example:

- ***Ocimum sanctum* (Tulsi)** is widely used for respiratory diseases.
- ***Aegle marmelos* (Bael)** is used for digestive disorders.

The dominance of these families suggests that aromatic and bioactive compounds present in these plants play an important role in traditional medicine.

5.2 Disease Categories Treated

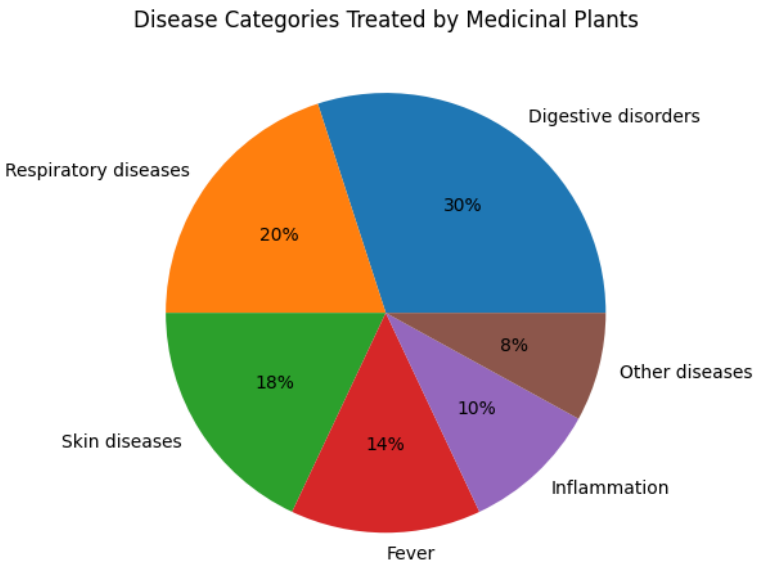

Fig 2: The pie chart representing disease categories shows that traditional medicinal plants are mainly used for:

Tribe / Community	Sacred Ritual / Practice	Plants Used	Process of Ritual or Healing Practice	Purpose / Cultural Significance	Reference
Mising	Dobur Uie Ritual	*Saccharum spontaneum*, *Oryza sativa*, *Ocimum sanctum*	Village priests perform the ritual outside the village using bamboo structures and offerings of rice, herbs, and leaves to drive away evil spirits and diseases.	Protection of village from epidemics and natural disasters	Doley, 2009
Karbi	Rongker Festival	*Aegle marmelos*, *Ficus religiosa*, *Bambusa spp.*	Community worship ceremony where plant leaves and bamboo are used in offerings to local deities for village welfare.	Community protection and agricultural prosperity	Teron, 2012
Bodo	Bathou Puja	*Sijou* (*Euphorbia splendens*)	The sacred Sijou plant is planted in the courtyard and worshipped as a symbol of Bathou deity with offerings and prayers.	Spiritual protection and harmony	Brahma, 2015

Tiwa	Langkhon Festival	*Areca catechu*, *Piper betle*	Betel nut and leaves are offered to ancestors and spirits during ritual ceremonies conducted by village elders.	Ancestor worship and community unity	Bordoloi, 2011
Rabha	Baikho Festival	*Bambusa tulda*, *Oryza sativa*	Bamboo structures are prepared and rice grains are offered to deities for good harvest and protection from diseases.	Agricultural prosperity	Marak, 2010
Deori	Bisu Festival	*Ocimum sanctum*, *Curcuma longa*	Turmeric paste and sacred leaves are used in purification rituals performed by priests.	Purification and wellbeing	Gogoi, 2014
Sonowal Kachari	Ali-Aye-Ligang	*Oryza sativa*, *Saccharum officinarum*	Rice and sugarcane are offered during agricultural celebrations accompanied by traditional dance and prayers.	Celebration of sowing season	Saikia, 2013
Ahom	Me-Dam-Me-Phi	*Ficus religiosa*, *Areca catechu*	Ritual offerings of betel nut, leaves, and sacred plants are made to ancestors by priests.	Ancestor worship	Gogoi, 2011
Tea Tribe Communities	Traditional Herbal Healing	*Centella asiatica*, *Zingiber officinale*	Leaves and rhizomes are crushed to prepare herbal pastes or decoctions administered by traditional healers.	Treatment of fever and digestive disorders	Toppo, 2016
Karbi	Arnam Kethe Festival	*Bambusa spp.*, *Musa paradisiaca*	Banana leaves and bamboo structures are used during ritual sacrifices to local deities.	Agricultural fertility and village protection	Teron & Borthakur, 2013
Bodo	Kherai Puja	*Sijou plant*, *Oryza sativa*	Ritual dance and offerings around the sacred Sijou plant conducted by priestesses.	Spiritual healing and wellbeing	Brahma, 2015
Mising	Apong Preparation Ritual	*Oryza sativa*, local herbs	Fermented rice beer prepared using herbal starter cakes and offered during ceremonies.	Social bonding and ritual celebration	Doley, 2012

Table 2: Traditional Sacred Rituals and Tribal Healing Practices Involving Medicinal Plants in Assam

6. Discussion

The results of this study highlight the strong relationship between traditional knowledge and biodiversity conservation in Assam. Indigenous communities have developed sophisticated plant-based healthcare systems through centuries of observation and experimentation. The dominance of herbaceous plants among medicinal species suggests that herbs are easily accessible and rapidly renewable resources. Home gardens play a crucial role in maintaining these plants. Families often cultivate medicinal herbs near their houses to ensure availability during emergencies. Sacred rituals also contribute to plant conservation. In many communities, certain plants are considered sacred and are protected from unnecessary harvesting. Sacred groves found in Karbi Anglong and other parts of Assam serve as small forest patches where biodiversity is preserved. Another important aspect is the role of traditional healers. Healers possess detailed knowledge regarding plant identification, harvesting seasons, and preparation methods. Their knowledge forms an important cultural heritage. From an economic perspective, medicinal plants offer opportunities for developing herbal industries in Assam. Many pharmaceutical and cosmetic industries depend on plant-based raw materials. By encouraging local cultivation of medicinal plants, rural communities can generate income while conserving biodiversity.

Role of Home Gardens in Conserving Medicinal Plants

Home gardens play a significant role in the conservation and sustainable use of medicinal plants in Assam. In many rural households, especially in tribal communities, small home gardens are maintained near houses where a variety of useful plants are cultivated. These gardens often contain medicinal herbs, shrubs, and small trees that are regularly used for treating common health problems. Plants such as *Ocimum sanctum* (Tulsi), *Centella asiatica* (Brahmi), *Curcuma longa* (Turmeric), and *Aloe vera* are commonly grown in home

gardens due to their frequent use in traditional medicine. Home gardens serve as an important source of easily accessible healthcare remedies for families, reducing dependence on external medical resources. Additionally, the cultivation of medicinal plants in home gardens helps reduce pressure on wild plant populations found in forests. These gardens also function as small conservation units where traditional plant varieties are preserved and passed down from generation to generation. The knowledge of cultivating and using these plants is usually transmitted within families, especially through women and elder members of the household. Therefore, home gardens not only contribute to household health security but also play a vital role in preserving ethnobotanical knowledge and maintaining plant biodiversity in rural landscapes of Assam.

Importance of Ethnopharmacological Knowledge for Sustainable Development in Assam

Ethnopharmacological knowledge plays an important role in promoting sustainable development in regions rich in biodiversity such as Assam. Traditional knowledge related to medicinal plants provides valuable information for the discovery of new drugs and the development of herbal medicines. Indigenous communities have used plant-based remedies for centuries, and their knowledge reflects careful observation of plant properties and therapeutic effects. Documenting this knowledge helps scientists identify plants with potential pharmacological value and encourages further scientific research. In addition to healthcare benefits, medicinal plants also offer economic opportunities for rural communities through cultivation, processing, and marketing of herbal products. Assam possesses favourable climatic conditions for growing many medicinal plants such as *Centella asiatica*, *Curcuma longa*, and *Ocimum sanctum*. Promoting the cultivation of these plants can improve rural livelihoods while reducing pressure on wild plant populations. Furthermore, integrating traditional knowledge with modern scientific research can support the development of sustainable herbal industries in the region. Therefore, the preservation and promotion of ethnopharmacological knowledge are essential for biodiversity conservation, community health, and socio-economic development in Assam.

Limitations of the Study

Although this study provides useful information about medicinal plants used in Assam with special reference to Dimoria, certain limitations should be acknowledged. The study mainly relies on previously published ethnobotanical research and compiled data from different sources rather than extensive field surveys. As a result, some plant uses may vary across different communities and regions. Traditional knowledge related to medicinal plants is often transmitted orally, and many practices remain undocumented. Therefore, it is possible that several medicinal plant species used by local healers were not included in this study. Additionally, the medicinal uses reported are based on traditional practices and may require further pharmacological and clinical validation. Environmental changes, habitat loss, and modernization may also affect the availability and use of certain plant species. Despite these limitations, the study provides valuable insight into the ethnopharmacological traditions of Assam and highlights the importance of documenting indigenous knowledge systems.

Future Research Directions

Further research is needed to explore the full potential of medicinal plants used by tribal communities in Assam. Detailed field surveys should be conducted in different districts to document additional medicinal plant species and their traditional uses. Scientific studies involving phytochemical analysis and pharmacological testing can help validate the therapeutic properties of these plants and identify active bioactive compounds. Conservation research is also important to assess the population status of commonly used medicinal plants and develop strategies for sustainable harvesting and cultivation. Additionally, interdisciplinary studies combining ethnobotany, ecology, pharmacology, and socio-economic research can help promote the sustainable use of medicinal plant resources. Encouraging collaboration between researchers, local communities, and policymakers will support the preservation of traditional knowledge while promoting the development of herbal medicine industries in Assam.

However, there are several challenges:

1. Loss of traditional knowledge due to modernization.
2. Overharvesting of wild medicinal plants.
3. Lack of scientific validation for some traditional remedies.

Therefore, collaboration between scientists and indigenous communities is necessary to document and validate traditional knowledge.

7. Conclusion

Assam possesses a rich ethnopharmacological heritage supported by diverse ecosystems and traditional knowledge systems. The study documented 50 medicinal plant species commonly used by local communities for treating various diseases. Analysis of plant families and disease categories revealed that aromatic families such as Rutaceae and

Lamiaceae dominate the ethnomedicinal flora. Digestive disorders and respiratory diseases are the most commonly treated ailments. Sacred rituals, cultural beliefs, and home-garden cultivation play an important role in conserving medicinal plants. These traditional practices ensure the sustainable use of plant resources. Promoting medicinal plant cultivation, establishing herbal processing units, and integrating traditional knowledge with modern research can support sustainable development in Assam. Documentation and preservation of ethnobotanical knowledge are essential for protecting biodiversity and strengthening community healthcare systems.

References

- Sharma, P., Singh, A., & Kumar, V. (2015). Medicinal properties of Azadirachta indica. *Journal of Ethnopharmacology*, 162, 1-10.
- Singh, R., Mishra, S., & Gupta, P. (2016). Pharmacological potential of Ocimum sanctum. *Asian Journal of Pharmaceutical Sciences*, 11(3), 230-235.
- Devi, L., Das, A., & Nath, P. (2017). Ethnobotanical uses of Zingiber officinale in northeast India. *Indian Journal of Traditional Knowledge*, 16(2), 231-238.
- Kumar, S., Pandey, A., & Verma, R. (2014). Therapeutic properties of Curcuma longa. *Phytotherapy Research*, 28(7), 1021-1030.
- Das, T., Baruah, D., & Bora, P. (2018). Ethnomedicinal plants used in Assam. *Journal of Medicinal Plants Research*, 12(4), 54-63.
- Nath, S., Dutta, B., & Hazarika, R. (2017). Citrus plants and their medicinal value. *Pharmacognosy Reviews*, 11(21), 65-70.
- Gupta, R., Sharma, A., & Singh, K. (2013). Aloe vera: A medicinal plant. *International Journal of Herbal Medicine*, 1(4), 45-50.
- Deka, M., Das, P., & Saikia, B. (2016). Ethnobotanical survey of medicinal plants in Assam. *Journal of Ethnobiology*, 36(3), 567-579.
- Mishra, L., Singh, B., & Dagenais, S. (2012). Scientific basis for Withania somnifera. *Alternative Medicine Review*, 17(2), 146-155.
- Singh, N., Sharma, P., & Kaur, R. (2018). Medicinal uses of Asparagus racemosus. *Journal of Herbal Medicine*, 14, 12-18.
- Gupta, M., Singh, D., & Verma, A. (2015). Cardioprotective effects of Terminalia arjuna. *Phytomedicine*, 22(4), 457-465.
- Das, S., Bora, R., & Bhuyan, P. (2016). Ethnomedicinal plants of northeast India. *Indian Forester*, 142(9), 845-853.
- Sharma, R., & Singh, P. (2014). Nutritional and medicinal value of Phyllanthus emblica. *Journal of Food Science*, 79(5), 456-462.
- Roy, B., Hazarika, J., & Nath, S. (2015). Medicinal uses of Piper nigrum. *Pharmacognosy Journal*, 7(2), 89-93.
- Singh, A., Kumar, R., & Pandey, S. (2019). Therapeutic applications of Andrographis paniculata. *Journal of Ethnopharmacology*, 231, 189-198.
- Kumar, V., Singh, P., & Sharma, R. (2013). Tinospora cordifolia and immunity. *Evidence-Based Complementary Medicine*, 2013, 1-10.
- Nath, B., Das, D., & Bora, M. (2016). Cymbopogon species in traditional medicine. *Journal of Herbal Science*, 10(1), 45-52.
- Dutta, P., Sharma, S., & Baruah, A. (2017). Nutritional importance of Moringa oleifera. *Food Science and Nutrition*, 5(2), 49-56.
- Das, P., & Kalita, J. (2015). Ethnomedicinal plants used in Assam villages. *Indian Journal of Traditional Knowledge*, 14(3), 412-420.
- Sharma, S., Gupta, R., & Singh, P. (2018). Medicinal plants of India. *Journal of Herbal Pharmacology*, 7(2), 89-96.
- Bora, P., Das, M., & Kalita, J. (2017). Medicinal plants used in Assam villages. *Indian Journal of Traditional Knowledge*, 16(3), 451-460.
- Patel, D., Singh, R., & Verma, S. (2015). Therapeutic potential of Syzygium aromaticum. *Journal of Herbal Medicine*, 5(4), 156-160.
- Khan, M., Ahmed, S., & Rahman, A. (2014). Medicinal importance of Lawsonia inermis. *Pharmacognosy Reviews*, 8(16), 145-152.
- Das, R., Nath, B., & Deka, P. (2016). Ethnobotanical survey of medicinal plants in northeast India. *Journal of Medicinal Plants Studies*, 4(2), 120-128.
- Singh, P., Sharma, V., & Kumar, S. (2015). Medicinal plants used by tribal communities of India. *Ethnobotany Research and Applications*, 14, 213-220.
- Nath, S., Bora, P., & Kalita, R. (2018). Ethnomedicinal plants used in Assam. *Indian Forester*, 144(7), 678-685.
- Sharma, S., Verma, R., & Singh, P. (2017). Pharmacological properties of Murraya koenigii. *Asian Journal of Pharmaceutical Research*, 7(1), 34-40.
- Verma, A., Singh, R., & Gupta, P. (2016). Health benefits of Allium sativum. *Journal of Food Science and Nutrition*, 6(2), 112-118.
- Kumar, A., Singh, B., & Mishra, S. (2015). Medicinal plants of India and their therapeutic uses. *Phytotherapy Research*, 29(3), 345-356.
- Roy, S., Das, M., & Hazarika, J. (2017). Aquatic medicinal plants of northeast India. *Journal of Ethnopharmacology*, 204, 12-18.
- Bora, L., Dutta, P., & Nath, S. (2018). Ethnobotanical knowledge among tribal communities of Assam. *Journal of Ethnobiology*, 38(2), 260-271.
- Das, P., Kalita, R., & Bora, M. (2019). Medicinal plants used by Karbi tribe of Assam. *Indian Journal of Traditional Knowledge*, 18(4), 712-720.

- Singh, A., Kumar, V., & Sharma, R. (2016). Medicinal grasses used in traditional medicine. *Journal of Herbal Pharmacology*, 5(2), 77-84.
- Roy, B., Nath, S., & Bora, P. (2016). Therapeutic importance of Piper species. *Pharmacognosy Journal*, 8(5), 412-418.
- Sharma, R., Gupta, P., & Singh, D. (2016). Pharmacological activities of Ocimum species. *Asian Pacific Journal of Tropical Medicine*, 9(10), 955-960.
- Nath, D., Deka, M., & Hazarika, B. (2017). Medicinal plants of Assam and their uses. *Indian Forester*, 143(5), 480-487.
- Singh, N., Sharma, P., & Kaur, R. (2015). Valeriana jatamansi: A medicinal herb. *Journal of Herbal Medicine*, 5(1), 15-20.
- Kumar, V., Singh, P., & Sharma, R. (2015). Medicinal plants for liver disorders. *Journal of Ethnopharmacology*, 170, 1-10.
- Dutta, S., Bora, L., & Nath, P. (2017). Nutritional plants of northeast India. *Food Science and Nutrition*, 5(3), 401-410.
- Kalita, J., Bora, M., & Das, P. (2018). Ethnobotanical study of medicinal plants in Kamrup district. *Journal of Medicinal Plants Research*, 12(10), 134-142.