

Herbal Food as a Source of Preventive and Curative Healthcare in the Bodo Society

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Abstract

Herbal foods have been an integral part of the daily diet practices of the Bodo community in Assam. These foods, often derived from wild and cultivated plants, are valued not only for their nutritional content but also for their preventive and curative properties. This study documents the various herbal foods consumed by Bodo households, examines their role in maintaining health, and explores how knowledge about these foods is transmitted across generations through cultural practices, festivals, rituals, and oral storytelling. The study finds that herbal foods contribute significantly to preventive healthcare by enhancing immunity, regulating digestion, controlling blood pressure, and supporting postpartum and seasonal health practices. However, modern lifestyles, urban migration, environmental degradation, and changing cultural attitudes are gradually weakening the transmission of this traditional knowledge. The study recommends measures for preserving and revitalizing herbal food practices, including community gardens, educational programs, documentation efforts, and intergenerational workshops. This paper explores the significance of herbal food as a traditional form of preventive and curative healthcare among the Bodo people of Assam, India, viewed through a folkloristic and ethnobotanical lens.

Keywords: Bodo, herbal food, preventive, curative, traditional knowledge, ethnobotany, folklore

1. Introduction

The Bodos are one of the largest indigenous groups in Assam, with a distinct language, culture, and social structure. They are primarily inhabiting in the Bodoland Territorial Region (BTR). Their language belongs to the Tibeto-Burman branch of Sino-Tibetan family, and their culture is characterized by a close relationship with nature, reflected in their agricultural practices, festivals, and food systems. They rely on the surrounding forests, rivers, and agricultural landscapes for their daily needs. Their close interaction with nature has allowed them to develop extensive knowledge about plants, their uses, and their seasonal availability. Their culinary practices, especially the use of herbal foods, are not merely nutritional but are deeply embedded in their cultural and spiritual life.

Among many indigenous communities of the world, food and medicine are inseparable categories. What is eaten daily is often believed to heal, cleanse, and protect the body from illness. In Bodo society, this belief is embodied in the use of herbal food wild or cultivated plant-based foods that are valued not only for their nutritional content but also for their preventive and curative properties. These foods represent a living system of indigenous healthcare that predates modern medicine.

Herbal foods in the Bodo society serve multiple functions that extend beyond mere nutrition. Nutritionally, these foods are rich in vitamins, minerals, and antioxidants, which help in maintaining bodily health and preventing deficiencies. Many wild vegetables and greens consumed regularly, are believed to purify the blood, improve digestion, and strengthen immunity.

Traditional knowledge regarding herbal foods is transmitted orally across generations. Elders, especially Women play a particularly crucial role in sustaining herbal food knowledge among the Bodos. They are primarily responsible for collecting, preparing, and cooking edible plants and herbs. Through daily practices, storytelling, and folk songs, women transmit knowledge about plant uses, seasonal cycles, and health benefits to younger generations. Elders and traditional healer (*Ojha*) also contribute by preserving rare knowledge about specific plants, remedies, and ritual preparations. Rituals, festivals, and folk songs also reinforce these practices.

The medicinal value of herbal food in Bodo society is closely tied to seasonal changes and ecological patterns. For example, monsoon brings a variety of bitter herbs that help prevent digestive and waterborne illnesses. Winter and dry seasons offer tubers, roots, and leafy greens that provide warmth, energy, and immunity. In this way, the Bodo people have developed a culturally embedded system of dietary prescriptions that responds to environmental conditions. Many wild vegetables and herbs are rich in antioxidants, vitamins, and bioactive compounds that prevent oxidative stress, regulate blood sugar, and reduce inflammation. However, rapid urbanization, deforestation, migration, and exposure to modern food systems are gradually eroding these cultural practices. This study aims to explore the diversity of herbal foods, their medicinal roles, and the processes of knowledge transmission among the Bodos.

The importance of studying herbal food in Bodo society extends beyond cultural preservation. Indigenous food systems provide valuable lessons in healthcare, dietary diversity, and sustainable living. By understanding how the Bodos use plants to prevent or cure illness, researchers and policymakers can develop culturally appropriate health interventions and conservation strategies. Such studies also highlight the significance of integrating scientific research with folkloristic and ecological perspectives to ensure the continued relevance and transmission of traditional knowledge.

This research paper explores the use of herbal food as preventive and curative healthcare among the Bodo people through a folkloristic perspective. It focuses on documenting the types of herbal foods consumed, understanding their role in disease prevention and cure, and interpreting how traditional ecological knowledge, oral traditions, and rituals guide these practices. The study focuses the need for preservation and revitalization of this knowledge,

both as a health resource and as an integral part of Bodo cultural identity. By analysing herbal-food practices holistically, the paper contributes to a deeper understanding of the interconnections between food, health, culture, and environment in indigenous societies. Preserving this knowledge is essential not only for maintaining community health but also for safeguarding the Bodo community's rich cultural and ecological heritage.

2. Review of literature

Boroni Jolonga (2001) by Kalicharan Brahma explores traditional methods of procuring medicinal remedies from naturally available ingredients in the environment. The book details the collection of various plant parts such as stems, roots, leaves, and seeds and their application in treating a range of health conditions. While it provides practical insights into herbal cures, it notably omits discussion of the cultural beliefs and traditional perspectives of the Bodo community regarding the use of herbal vegetables.

Boroni Muli Bifang Laifang (2002), authored by Birendra Kumar Brahma, Brahmananda Patere, and Hati Basumatary, emphasizes the importance of preserving knowledge about rare and endangered herbal plants. It recommends for self-reliant practices in identifying and collecting these plants for therapeutic use. The book systematically presents plant names, identification methods, medicinal applications, and treatment procedures. It categorizes the discussed flora into two distinct groups: (i) leaf and root-based plants, and (ii) tree-based plants.

Muli Jolonga (2007), (*Bag of Medicine*), by Renu Boro, offers a practical guide to treating common ailments through the consumption of various medicinal plants and herbs. Structured into seven chapters, the book introduces key medicinal species and outlines methods for preparing remedies from plant parts and fruits, along with their respective uses.

3. Aims and objectives

1. To document the herbal foods used by the Bodo community.
2. To analyse their medicinal value of herbal foods.
3. To describe modes of traditional knowledge transmission related to herbal food.
4. To identify challenges in preserving this knowledge and propose solutions.
5. To recommend ways to preserve and promote herbal food knowledge within the community.

4. Methodology

The data are gathered from primary and secondary sources. Fieldwork has been carried out in select villages of the Baksa district of Bodoland Territorial Region (BTR), Assam, primarily where Bodo households continue to practice traditional food and plant use. Primary data were collected through semi-structured interviews, participant observation, and focus group discussions. The selection of informants was purposive, focusing on knowledgeable individuals who practice or remember traditional herbal food habits. Plant names and uses were recorded; specimens were photographed and cross-checked with regional ethnobotanical

guides. Secondary data were collected through reviewing existing academic articles, books, and reports related to Bodo herbal food practices.

5. Discussion

Food is essential for all living beings; food habits form an integral part of a community's culture. Dietary practices vary across regions and communities, reflecting differences in environment, livelihood, and tradition. The food habits of the Bodo people are generally simple and largely based on herbal and natural ingredients. Agriculture, particularly paddy cultivation, is the primary occupation of the Bodos, making rice their staple food. They usually prepare various vegetables and other dishes as supplementary items to accompany rice. Many of these vegetables and herbs are cultivated in household or kitchen gardens for daily consumption. Most Bodo villages are located near forests, rivers and grazing lands, which provide easy access to a variety of edible plants. These natural resources are not only valued for their nutritional benefits but also for their medicinal properties. The Bodos often collect such herbal vegetables from their surroundings and use them in everyday cooking, believing that they help maintain good health, cure and prevent illness. Thus, food and medicine are closely intertwined in their culture.

The Bodos possess a rich tradition of folk medicine, which they use in the treatment of various ailments and diseases. They practice several forms of traditional healing systems that are deeply rooted in their indigenous knowledge. These healing systems primarily rely on locally available herbal and folk medicines.

Traditional healers employ diverse medicinal formulations derived from folk medicinal plants to treat a wide range of health problems. These healers possess extensive knowledge regarding the use of medicinal plants for both therapeutic and nutritional purposes. The information presented here has been gathered through fieldwork and interviews with local traditional healers.

Among the Bodo people, various traditional systems of healing exist, each using specific folk medicines to cure particular ailments. These medicines are obtained from numerous species of medicinal plants, classified according to their botanical characteristics and therapeutic uses. Within Bodo society, both minor and major diseases are treated using traditional folk remedies. Common ailments such as cough, cold, flu, headache, body ache, gastric problems, toothache, and fever are generally treated with natural herbal preparations. Similarly, more serious diseases such as jaundice, typhoid, dysentery, and diabetes are also managed using these indigenous medicines. The preparation and application of such remedies are based on the symptoms of the disease. Some ailments are treated using a single part of a plant such as bark, root, stem, shoot, seed, leaf, fruit, rhizome, or bud while others require combinations of several plant parts from different species to create more complex medicinal formulations.

5.1 Herbal foods or plants used by the Bodo community

The study identified a wide variety of herbal plants regularly consumed by the Bodos. These plants are both wild and cultivated. A total of 30 species belonging to diverse families are listed below with Bodo name and scientific mentioning their uses.

1. Bodo name: Jari

Scientific name: *Spilanthes paniculata* Wall. ex D.C.

This is a small, creeping plant that grows about 0.5 to 1 foot above the ground. Its leaves and stems are soft, and it bears small yellow flowers. The plant grows in all seasons and is found almost everywhere.

Uses: Its leaves and stems are commonly used in curries. The Bodo people often consume this plant with chicken or fish. They also prepare a chili soup using chicken and *Jari*, often mixed with other herbs, which is believed to be beneficial for treating cough, cold, pneumonia, and fever. Additionally, the flowers of *Jari* are used to treat mouth cavity disorders.

2. Bodo name: Manimuni Phisa

Scientific name: *Hydrocotyle sibthorpioides* Lamk.

This plant typically grows in moist areas such as paddy fields and around houses. It is usually found between February and April. The stems and leaves are very soft, and it produces small white flowers.

Uses: The plant is commonly used as a vegetable and is also valued for its medicinal properties. It is often cooked in chili soup along with other leafy vegetables, meat, fish, and spices. Traditionally, it is also used in preparing herbal tablets believed to be effective in treating jaundice, typhoid, pneumonia, chronic fever, cough, and cold.

3. Bodo name: Manimuni gidir

Scientific name: *Centella asiatica* (L.) Urban

This plant is generally small creeping plant and grows in the wet places like paddy field and around houses.

Uses: The use of this plant is same to the Manimuni Phisa (*Hydrocotyle sibthorpioides* Lamk.).

4. Bodo name: Sona phuli

Scientific name: *Hypericum japonicum* Thunb. ex Murr.

This plant typically grows in paddy fields and other damp areas nearby, reaching a height of about 5 to 6 inches. Its leaves and stems are small and delicate, and it blooms yellow flowers.

Uses: This plant holds great medicinal value and is used in preparing pills for ailments such as typhoid, pneumonia, jaundice, cough, and cold fever combining with other medicinal herbs. Among the Bodos, it is often consumed with chicken, fish, or chili soup, and sometimes combined with other medicinal herbs like *Manimuni*, *Phudina*, *Jari* and various spices.

5. Bodo name: Rupha phuli

Scientific name: *Mazus rugosus* Lour.

This small herb thrives in damp environments, particularly in paddy fields. It bears delicate white flowers that bloom during February and March, withering by April or May. The plant's leaves and stems are notably soft and tender. It is considered rare and not commonly found.

Uses: Primarily used as an ingredient in curry, this plant shares similar medicinal properties with Sona phuli (*Hypericum japonicum* Thunb. ex Murr.). It plays a vital role in traditional remedies, especially in the preparation of pills for treating jaundice and typhoid. Additionally, it is an essential component in making chilli soup.

6. Bodo name: Maisundri

Scientific name: *Houttuynia cordata* Thunb.

This plant thrives in damp, shaded areas. Its leaves are smooth, broad, and emit a distinctive fragrance.

Uses: Both the roots and leaves are consumed as vegetables. Among the Bodo community, it is considered an essential ingredient in chilli soup. The plant is also valued for its blood-purifying properties. Regular consumption is believed to provide relief from ailments such as stomach pain and dysentery.

7. Bodo name: Buthua

Scientific name: *Chenopodium album* L.

This plant is a type of wild vegetable commonly found in open fields and areas where vegetables are cultivated. It features smooth, small leaves and bears fruit.

Uses: Among the Bodo community, this plant is traditionally consumed with *Lapha mwigong* (a local vegetable), along with alkali and fish. All parts of the plant leaves, stems, and top shoots are used as vegetables. It is also valued for its medicinal properties.

8. Bodo name: Helangsi

Scientific name: *Enhydra fluctuans* Lour.

This is a creeping plant that grows along pond edges and riverbanks. Its stems are hollow and like a pipe.

Uses: The plant is consumed as a vegetable, and its juice is traditionally used to treat a variety of ailments, including cough. It is also believed to strengthen the liver and purify the blood.

9. Bodo name: Kheradaphini (Mathigaldab)

Scientific name: *Premna herbacea* Roxb.

This wild vegetable grows flat along the ground, firmly attached to the soil. It does not grow vertically but spreads horizontally like a natural mat. The plant has no branches, and its leaves are smooth and slightly broad. When ripe, its fruits turn black.

Uses: The leaves are commonly consumed as a vegetable, often cooked with pork, fish, and crab in traditional Bodo cuisine. It is especially valued for its medicinal properties, believed to be effective in treating jaundice and typhoid.

10. Bodo name: Sibru

Scientific name: *Lasia spinosa* (L.) Thaw.

This plant typically grows along riverbanks and in damp areas. It reaches a height of approximately 2 to 3 feet. The plant features broad leaves and elongated stems resembling those of *Colocasia*.

Uses: Its tender, thorny stems and leaves are consumed as vegetables. The stems and leaves are traditionally used to treat various ailments, including fever, cough, and stomach-related disorders.

11. Bodo name: Jwglori

Scientific name: *Plectranthus ternifolius* D. Don

This aromatic medicinal plant thrives in elevated, dry areas and is often cultivated in household courtyards. It grows to a height of approximately 1 to 2 feet. The leaves are smooth, emit a distinctive scent.

Uses: The leaves are consumed as a vegetable and are traditionally used to treat typhoid, cough, fever, and stomach ailments. For relief from whooping cough and fever, the Bodo community prepares a chilli soup infused with chicken, Jwglori along with other herbs.

12. Bodo name: Jolonga Banthu

Scientific name: *Sphaeranthus indicus* L.

This wild vegetable plant typically grows in paddy fields and is recognized by its dark pink flowers. The plant emerges in March, producing both flowers and fruit during its growth cycle.

Uses: The leaves, stems, flower tops, and tender shoots are commonly used in curry preparations. It is considered an essential ingredient in traditional chilli soup made with chicken, fish, and a blend of spices such as pepper and cumin. Within Bodo medicinal practices, this plant is valued for its therapeutic properties, believed to provide relief from common cold, cough, fever, and typhoid.

13. Bodo name: Khiphi Bendwng

Scientific name: *Paederia foetida* L.

This wild medicinal plant is a creeping vegetable that typically grows in forested areas and thrives in elevated, dry locations. It features slightly elongated leaves with a distinct aroma.

Uses: The leaves and tender shoots are consumed as vegetables. Traditionally, this plant is valued for its wide range of medicinal properties. It is believed to provide relief from dysentery, diarrhoea, stomach pain, acidity, constipation, cough, fever, and common cold.

14. Bodo name: Khansinsa

Scientific name: *Leucas aspera*

This herbal vegetable is commonly found in paddy fields, cultivated gardens, and various open areas. It grows abundantly and is easily recognized by its small leaves, flowers, and fruits.

Uses: The leaves, shoots, and stems are consumed as vegetables and are traditionally used to support digestion and treat ailments such as cough, cold, throat infections, intestinal worms, and nosebleeds.

15. Bodo name: Singri

Scientific name: *Oxalis corniculata* L.

This plant grows in dry areas where vegetables are cultivated and is found in both large and small varieties. One type also thrives along riverbanks, clay-rich soils, and occasionally in damp environments. It is a creeping plant that spreads along the ground.

Uses: The stems and leaves are consumed as vegetables and are known for their sour taste. Traditionally, the Bodo community prepares it with fish. Medicinally, the plant is valued for its ability to treat scurvy, stomach disorders, general weakness, and related ailments.

16. Bodo name: Khuduna (su gwnang)

Scientific name: *Amaranthus spinosus* L.

This wild vegetable plant typically grows in elevated, dry areas.

Uses: The top leaves and stems are harvested and consumed as vegetables. Traditionally, this plant is used to relieve burning sensations caused by gastric acidity and related stomach discomfort.

17. Bodo name: Mwiphrai

Scientific name: *Basella alba* L. var. *rubra* (L.) Stewart.

This plant is a creeping species that climbs over other vegetation. It produces broad, round, and smooth leaves, and its fruit turns black upon ripening.

Uses: The plant is known to be a natural source of vitamin A. Traditionally, it is used to treat piles, physical discomfort, and constipation.

18. Bodo name: Dausrem

Scientific name: *Vitis repanda* W & A

This plant is a creeping vegetable that spreads along the ground and over nearby herbs. Its stems and leaves are soft, with the leaves being slightly elongated and reddish in colour.

Uses: The leaves, especially the tender top ones, are commonly used as a vegetable. A soup made from the leaves is known to help relieve urinary burning and aid digestion. It is also often cooked with fish to enhance flavour and nutritional value.

19. Bodo name: Nwrsing

Scientific name: *Murraya koenigii* (L.) Spreng.

This is a fragrant plant that typically grows to a height of 5 to 6 feet. It features small leaves that sprout along its branches.

Uses: The leaves are commonly used as a vegetable, often cooked with fish or added to chicken soup along with small chilies. Traditionally, the plant is valued for its medicinal properties and is used to help treat stomach ailments, typhoid, coughs, colds, and indigestion.

20. Bodo name: Neem

Scientific name: *Azadirachta indica* A. Juss.

This plant is a large species known for its extensive medicinal properties.

Uses: Various parts of the plant including its leaves, tender shoots, roots, and bark are utilized as medicinal vegetables and in the treatment of several ailments. A decoction made from the leaves and roots is traditionally used to relieve diarrhoea. The leaf juice is known to combat threadworms and is also used to alleviate stomach pain, body aches, fever, diabetes and skin disorders. Additionally, it serves as a natural blood purifier.

21. Bodo name: Gonggar thaisib

Scientific name: *Morus indica* L.

This wild-growing plant can reach a height of 10 to 15 feet and bears fruit with a distinctly sour taste.

Uses: Its leaves, young shoots, and roots are commonly used as vegetables. In traditional folk medicine, it is highly valued for treating jaundice.

22. Bodo name: Daosa mwkhreb

Scientific name: *Mimosa pudica* L.

This plant is a ground-creeping species with hard stems that bear small thorns. It produces pink flowers and small fruits.

Uses: Widely recognized in herbal medicine, the plant's root is traditionally used to treat toothaches, relieve urinary burning sensations, and support recovery from jaundice.

23. Bodo name: Phudina

Scientific name: *Mentha arvensis* L.

This plant thrives in wet places and creeps along the soil surface, growing up to one foot in height. The plant emits a pleasant fragrance, reminiscent of holy basil leaves.

Uses: Its leaves, stems, and shoots are primarily consumed as a vegetable, this plant also holds medicinal value. It is traditionally used to help treat jaundice, vomiting, headaches, whooping cough, and various skin conditions. Additionally, it is believed to aid in blood purification.

24. Bodo name: Mwngambaru

Scientific name: *Homalomena aromatica* (Spreng.) Schott

This medicinal vegetable resembles the colocasia plant, with similar leaves and stems. It thrives in elevated, damp areas and emits a pleasant fragrance. The plant typically grows to a height of 1 to 2 feet and has broad leaves.

Uses: The stem is commonly used to prepare chili soup. Among the Bodo community, it is traditionally consumed to help treat ailments such as cough, cold, fever, pneumonia, typhoid, and throat infections.

25. Bodo name: Thaso bithorai

Scientific name: *Colocasia esculenta* (L.) Schott

This wild vegetable typically thrives in damp areas, especially along riverbanks. It is abundantly available throughout the year. The plant features broad, smooth leaves attached to a stem, from which tender leaves and flowers emerge.

Uses: The leaves, flowers, tender shoots, and stems are commonly consumed as vegetables. Among the Bodo community, the tender stems, young leaves, and rhizomes are traditionally cooked with dried fish and a variety of spices. It is also used to help enhance lactation in nursing mothers.

26. Bodo name: Khunthai

Scientific name: *Solanum torvum* Swartz

This plant thrives in both dry and moist environments, reaching a height of approximately 4 to 5 feet. It bears round, green fruits, and its stems are equipped with thorns.

Uses: The fruits are consumed as vegetables and are traditionally believed to support liver health. Additionally, the roots are used in folk remedies to alleviate symptoms of cough and asthma.

27. Bodo name: Daosri athing

Scientific name: *Oldenlandia corymbosa* L.

This plant is a small, ground-creeping species belonging to a lower botanical category. It spreads horizontally across the soil, with delicate stems and soft, narrow leaves. It thrives in both damp and dry field conditions, adapting well to varied environments.

Uses: The leaves and stems are consumed as vegetables and are especially valued in the preparation of chili-based soups. In traditional medicine, this plant is also used often in combination with other herbs to produce tablets that help treat ailments such as typhoid, pneumonia, fever, cough, cold, and flu.

28. Bodo name: Thulunsi

Scientific name: *Ocimum tenuiflorum* L.

This plant belongs to a lower botanical category and is commonly found across diverse habitats. Among the Bodo community, it is traditionally cultivated near household altars, reflecting its sacred and medicinal significance. Known as holy basil, it typically grows to a height of 2 to 3 feet.

Uses: The roots, leaves, tender stems, and young shoots of the plant are widely used in traditional herbal medicine. The root is believed to help alleviate general weakness, while the

leaves are used to treat ailments such as cough, cold, flu, typhoid, pneumonia, skin disorders, stomach pain, and indigestion. The leaves are also incorporated into curries alongside other medicinal herbs. Beyond its therapeutic value, the plant holds deep religious importance and is used in rituals and offerings during the worship of deities.

29. Bodo name: Daogang zwla

Scientific name: *Eclipta prostrata* (L.) L.

This herbaceous plant typically grows in moist environments such as wetlands and agricultural fields. It reaches a height of approximately 2 feet and bears small, slightly elongated leaves. The plant blooms white flowers.

Uses: Traditionally, this plant is used in herbal remedies to treat eye-related ailments and to aid in the healing of wounds on the human body.

30. Bodo name: Sephali

Scientific name: *Nyctanthes arbor-tristis* L.

This plant is cultivated primarily for its floral value. It bears small, white flowers that emit a pleasant fragrance and bloom during the night.

Uses: The flowers are edible and commonly used as a vegetable. Traditionally, the flowers, fruits, and leaves are employed in herbal medicine to treat stomach ailments, fever, and intestinal worms. It is recognized for its therapeutic properties and valued as a medicinal plant.

5.2 Typical modes of use of herbal food

The Bodos have a long-standing tradition of using locally available herbs and plants as both food and medicine. The use of herbal food is deeply rooted in their daily life, culture, and belief system. It reflects a holistic approach to health, where food and medicine are not seen as separate but as complementary aspects of well-being. The typical modes of use of herbal food among the Bodos can be categorized according to their form of consumption, purpose, and preparation methods.

a) Daily Dietary Use: In Bodo households, herbal food is an integral part of the daily diet. Various wild and cultivated herbs like Jari (*Spilanthes paniculata*), Manimuni Phisa (*Hydrocotyle sibthorpioides*), Sona phuli (*Hypericum japonicum*), Maisundri (*Houttuynia cordata*), Helangsi (*Enhydra fluctuans*), Sibru (*Lasia spinosa*), Khiphi Bendwng (*Paederia foetida*) and Nwrsing (*Murraya koenigii*) are cooked as vegetables, added to curries, soups, or mixed with rice. Some are eaten raw as salads, while others are boiled, fried, or mashed. These herbs are not only valued for their flavour but also for their nutritional and medicinal properties. Many herbs help in maintaining digestion, purifying the blood, and preventing common seasonal illnesses such as cough, fever, or stomach disorders. Thus, the daily use of herbal plants in cooking serves as a natural preventive measure that keeps the body balanced and strong without the need for external medication.

b) Seasonal Use: The use of herbal food in the Bodo society also follows the seasonal cycle. Different herbs grow during specific times of the year and are consumed accordingly. During

the rainy season, for instance, cooling herbs Maisundri (*Houttuynia cordata*), Helangsi (*Enhydra fluctuans*), Phudina (*Mentha arvensis*), Mwiphrai (*Basella alba*) and Kheradaphini (*Premna herbacea*) are preferred to prevent digestive problems, while in winter, warming herbs like Sibru (*Lasia spinosa*), Khiphi Bendwng (*Paederia foetida*), Jolonga Banthu (*Sphaeranthus indicus*) and Jwglauri (*Plectranthus ternifolius*) are used to maintain body heat and strength.

c) Use in Soups and Decoctions: One of the most common ways of consuming medicinal herbs in Bodo households is through soups and decoctions. Various leaves, roots, or stems like Jari (*Spilanthes paniculata*), Manimuni Phisa (*Hydrocotyle sibthorpioides*), Sona phuli (*Hypericum japonicum*), Nwrsing (*Murraya koenigii*), Sibru (*Lasia spinosa*), Khiphi Bendwng (*Paederia foetida*), Jolonga Banthu (*Sphaeranthus indicus*) and Jwglauri (*Plectranthus ternifolius*) are boiled together with meat, fish, or vegetables to prepare a healthy soup. Such soups are often given to people recovering from illness, to strengthen the body, or to maintain overall health during seasonal changes.

d) Use in Fermented or Preserved Forms: Fermentation is another traditional method used by the Bodo people to preserve herbal plants and enhance their flavour and medicinal value. Some herbs like bamboo shoots are fermented for future use. Fermented herbal products are rich in natural probiotics and are known to promote gut health and digestion. Herbal pickles and dried leafy mixtures are also prepared to ensure year-round availability of medicinal herbs, especially during the dry seasons when fresh plants are scarce.

e) Food for Special Groups: Special herbal foods are prepared for children, pregnant women, and the elderly to boost immunity and overall health. During childbirth or after delivery, women are often given herbal soups to regain strength and purify the body. These practices are guided by experience and traditional belief, showing the depth of indigenous health knowledge embedded in food habits.

The typical modes of using herbal food among the Bodo people demonstrate a deep connection between health, nature, and culture. Through daily meals, rituals, and medicinal practices, they integrate preventive healthcare into their way of life. The diverse methods of using herbs from cooking and fermentation to decoction reflect an indigenous system of health management rooted in ecological knowledge and cultural continuity. Preserving and promoting these traditional modes of use can contribute greatly to sustainable health practices and cultural identity in the modern era.

5.3 Knowledge holders

In Bodo society, traditional knowledge about herbal food and its preventive and curative health benefits have been preserved and practiced for generations. The main knowledge holders are the elderly members of the community especially women, traditional healers (known locally as *Ojha*) and farmers who are closely connected to nature. These individuals possess deep understanding of the local flora, seasonal growth patterns, preparation methods, and the therapeutic uses of various herbs.

Women, in particular, play a crucial role as the primary custodians of herbal food knowledge. As the main caretakers of family health and nutrition, they are responsible for collecting,

preparing, and preserving wild edible plants. Their intimate experience with the environment enables them to identify useful herbs and incorporate them into daily meals for both nutritional and medicinal purposes. Elderly women often pass this knowledge to younger family members through daily food preparation, folk songs, stories, and practical teaching during cultivation and harvesting seasons.

Traditional healers or *Ojas* also play a significant role in maintaining the link between food and medicine. Their practices are based on a holistic understanding of health, in which herbal food serves not only as nourishment but also as a means to maintain bodily balance and prevent disease. These healers use locally available plants to treat common ailments such as fever, stomach disorders, cough, and joint pain, emphasizing the principle that “food itself is medicine.”

5.4 Transmission of herbal food knowledge

The transmission of herbal food knowledge in the Bodo community occurs mainly through oral traditions and direct participation. Elders teach younger generations by showing them how to collect herbs from forests, wetlands, or fields, and how to prepare them for food or medicine. There are no written records or formal systems for preserving this knowledge; instead, it is embedded in everyday activities, folk songs, proverbs, and seasonal rituals.

a) Oral tradition and family transmission: Traditionally, knowledge about herbal food its identification, preparation, and medicinal value is passed down orally within families. Elders, especially women and traditional healers, serve as the primary transmitters of this knowledge. They share their wisdom through storytelling, folk songs, and daily activities such as cooking, farming, and gathering. For example, children learn to recognize useful plants by accompanying their elders to forests, fields, or wetlands, where they observe how specific herbs are collected and prepared for food or medicine. Family kitchens play a vital role in this transmission process. Through regular participation in food preparation, younger family members learn about the taste, texture, and health benefits of various herbs. Recipes and preparation methods are not written but remembered and practiced repeatedly, ensuring that knowledge is preserved through routine experience.

b) Learning through observation and participation: The process of learning in the Bodo community is practical rather than theoretical. Young members learn by observing and assisting elders during food gathering, cultivation, or healing rituals. For instance, during the rainy season when many herbs grow abundantly, elders teach which plants should be harvested and which should be avoided. This experiential form of learning ensures that knowledge is deeply rooted in environmental awareness and seasonal understanding.

In addition, festivals and rituals often serve as occasions where traditional food and herbal knowledge are shared publicly. Certain herbs are used in ceremonial dishes, and their symbolic and medicinal meanings are explained by elders. In this way, cultural events also act as informal educational spaces for passing on traditional wisdom to younger generations.

5.5 Challenges in promoting herbal food

Although the Bodo society possesses a rich heritage of traditional herbal food knowledge, several challenges threaten its continuation and effective use. These challenges are linked to social, environmental, economic, and cultural transformations that have taken place over recent decades.

a) Erosion of traditional knowledge: One of the most serious challenges is the gradual loss of indigenous knowledge concerning herbal food and its preventive and curative health benefits. Traditionally, such knowledge was transmitted orally through generations, especially by elders, healers, and women. However, due to modernization, migration, and changing lifestyles, younger generations show less interest in traditional practices. The absence of written documentation further accelerates this knowledge loss, making it difficult to preserve and transfer to future generations.

b) Environmental and ecological degradation: Many herbal plants used in the Bodo diet grow naturally in forests, wetlands, and paddy fields. Rapid deforestation, soil degradation, and encroachment on natural habitats have caused the disappearance of several valuable species. Seasonal variations and unpredictable climate changes have also affected the natural growth cycle of these herbs, reducing their availability for daily consumption and medicinal use.

c) Influence of modern food culture: The increasing popularity of modern, processed, and market-based food items has greatly influenced the food habits of the Bodo people. Young people often prefer fast foods and packaged products over traditional herbal dishes. The easy access to market foods and the perception that traditional items are outdated or “poor man’s food” have led to the neglect of indigenous dietary practices. Consequently, the health benefits associated with herbal food are being overlooked.

d) Lack of scientific validation: Although herbal food is deeply rooted in traditional healing systems, scientific research and laboratory-based validation of its nutritional and medicinal properties remain limited. Without proper scientific documentation, herbal foods are often dismissed by modern healthcare systems. The lack of research-based evidence also prevents these traditional practices from being incorporated into public health or nutrition programs.

e) Policy neglect and institutional gaps: Government policies and health programs in the region rarely acknowledge or support indigenous food systems. There are few institutional mechanisms to promote or protect herbal food traditions. The absence of initiatives for cultivation, preservation, and marketing of herbal plants makes it difficult for local communities to sustain their use. As a result, valuable resources and knowledge remain marginalized.

f) Socio-economic challenges: In many Bodo villages, poverty and lack of livelihood opportunities force people to focus on income-oriented crops rather than traditional herbal cultivation. Younger members often migrate to towns for work, reducing their direct connection to the land and traditional food practices. Moreover, inadequate transportation and marketing systems limit the potential to commercialize herbal products that could otherwise promote both health and economic well-being.

g) Cultural change and modern aspirations: Cultural change has also played a role in reducing the importance of traditional herbal foods. The modern education system and exposure to external cultures have transformed community perceptions of food and health. Many people now associate herbal food practices with rural backwardness rather than cultural pride, resulting in a loss of respect for traditional dietary wisdom.

h) Lack of awareness and educational support: There is still a lack of awareness about the nutritional and medicinal value of herbal plants among the general public. Educational programs, seminars, or community workshops that could highlight the preventive and curative healthcare role of these foods are rare. Without proper awareness, the community is less likely to preserve or promote its traditional food knowledge.

The challenges in promoting herbal food as preventive and curative healthcare in the Bodo society stem from multiple interconnected factors: environmental degradation, modernization, policy neglect, and cultural change. To overcome these obstacles, it is essential to combine traditional knowledge with modern research, encourage community participation, and develop policies that support the preservation of indigenous food systems. Strengthening awareness, documentation and education can help the Bodo people continue their rich tradition of using herbal food for sustainable and preventive healthcare.

5.6 Recommendation measures

To preserve, promote, and strengthen the traditional practices of herbal food as a source of preventive and curative healthcare among the Bodo people, several strategic and community-based measures are needed.

a) Documentation and preservation of indigenous knowledge: The first and most important step is to systematically document the traditional knowledge related to herbal food and its health benefits. Oral traditions, local plant names, recipes, preparation methods, and associated cultural beliefs should be recorded through written, audio, and video formats. This documentation should involve collaboration between elders, traditional healers (*Oja* or *Douri*), community members, and researchers. Establishing local archives or digital repositories will help preserve this valuable heritage for future generations. Documentation should be in the Bodo language as well as English to ensure accessibility.

b) Integration into educational curriculum: Incorporating traditional herbal food knowledge into school and college curriculum can encourage younger generations to appreciate and value their indigenous heritage. Lessons on local plants, their nutritional and medicinal uses, and sustainable harvesting practices can be introduced through environmental studies, home science, or cultural studies. Practical sessions such as field visits, herb gardens, and community projects can further enhance experiential learning among students.

c) Promotion of community awareness: Community awareness programs should be organized to revive the use of herbal food in daily life. Seminars, health camps, exhibitions, and food festivals focusing on herbal and traditional foods can help highlight their health-promoting properties. Such programs can also correct misconceptions that traditional foods are outdated

or inferior compared to modern diets. Awareness through local media, radio, and social platforms can play an important role in spreading this knowledge widely.

d) Encouraging cultivation and conservation: Many herbal plants are disappearing due to deforestation, overharvesting, and environmental changes. Therefore, it is necessary to encourage the cultivation and conservation of these plants in home gardens, community fields, and schools. Setting up community herbal gardens and kitchen herbal plots can ensure easy access to these resources. Local self-help groups and farmers can be trained in sustainable collection, cultivation, and storage techniques to maintain the availability of medicinal plants throughout the year.

e) Scientific research and validation: There is a need for scientific research to validate the nutritional and medicinal values of traditional herbal foods used by the Bodos. Collaborative research between ethnobotanists, nutritionists, and healthcare professionals can help identify bioactive compounds and health benefits, thereby strengthening their acceptance in modern healthcare systems. Publishing such findings can bridge traditional wisdom and scientific credibility, ensuring greater recognition at regional and national levels.

f) Policy support and institutional collaboration: Government and non-governmental organizations should support initiatives that promote traditional food systems. Policies related to health, agriculture, and culture should include measures for the protection and promotion of indigenous food knowledge. Institutions such as the State Council of Educational Research and Training (SCERT), local universities, and agricultural departments can collaborate with community organizations to implement projects on herbal food education, conservation, and commercialization.

g) Empowerment of traditional knowledge holders: The knowledge holders elders, women, and healers should be recognized as valuable contributors to community health and cultural preservation. Providing them with platforms to share their experiences through workshops, conferences, and cultural events can ensure their participation and respect. Government and NGOs can offer incentives, recognition awards, or stipends for their contributions to preserving traditional health knowledge. This not only encourages them but also motivates others to learn and continue the practice.

h) Encouraging eco-tourism and local enterprises: Promoting eco-tourism and small-scale herbal food enterprises can provide economic opportunities while preserving traditional knowledge. Herbal food products, organic teas, and traditional spice blends can be marketed under local community brands. This would help generate income and simultaneously promote awareness about the medicinal value of Bodo herbal food practices. Ensuring fair trade and local benefit-sharing mechanisms is essential for community empowerment.

The preservation and promotion of herbal food knowledge in the Bodo society require collective action from communities, researchers, policymakers, and institutions. By combining traditional wisdom with modern education and scientific validation, it is possible to create a sustainable framework for preventive and curative healthcare. These recommendations not

only safeguard cultural heritage but also offer practical solutions to contemporary health challenges, ensuring that the wisdom of the Bodo people continues to enrich future generations.

6. Conclusion

The exploration of *Herbal Food as a Source of Preventive and Curative Healthcare in the Bodo Society* highlights the profound interrelation between traditional dietary practices and indigenous health management systems. For centuries, the Bodo people have sustained a harmonious relationship with nature, drawing upon their deep ecological knowledge to identify, prepare, and consume various herbal plants as part of their everyday diet. These practices not only ensure nutritional security but also play a crucial role in disease prevention and holistic well-being. The integration of herbal food into daily life demonstrates an inherent understanding of preventive healthcare long before the advent of modern medical science.

In Bodo society, food is not merely a source of sustenance but a means of maintaining physical, mental, and spiritual balance. Many of the herbal plants used in their cuisine possess medicinal properties that help to prevent common ailments such as coughs, colds, digestive problems, skin diseases, and fevers. The inclusion of herbs in everyday meals underscores a preventive approach to health, where maintaining bodily balance through diet reduces dependency on curative medicine.

Moreover, the traditional knowledge of herbal food among the Bodos is not limited to its consumption but extends to its preparation, seasonal availability, and appropriate combinations with other food ingredients. Elders, particularly women, serve as custodians of this knowledge, transmitting it orally across generations. This knowledge system reflects a sustainable and community-based approach to healthcare that integrates environment, culture, and health in a unified framework.

However, rapid modernization, environmental degradation, and changing food preferences among the younger generation have led to a gradual decline in the use of herbal food. Many valuable species are disappearing from local ecosystems, and traditional knowledge is at risk of being lost. Hence, it is essential to document and scientifically validate the medicinal properties of these plants to promote their inclusion in contemporary health systems. Educational awareness, conservation efforts, and integration of herbal food knowledge into local health programs can strengthen preventive healthcare and cultural preservation simultaneously.

In conclusion, the Bodo community's reliance on herbal food exemplifies a sustainable and preventive model of healthcare deeply rooted in nature and tradition. It not only reflects the community's wisdom in utilizing local biodiversity but also provides valuable insights for modern society seeking natural and preventive and curative alternatives to health management. Preserving and revitalizing this heritage can contribute significantly to the promotion of sustainable health, food security, and cultural continuity for future generations.

Limitations of this study

This research is localized. Plant names and uses can vary across regions, and scientific validation of claimed health effects was not conducted. Future studies combining ethnobotany with phytochemical analysis and nutritional profiling would strengthen the evidence base for specific claims.

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