

Short Communication**TRADITIONAL MEDICINAL PLANTS USED BY TRIBAL COMMUNITIES OF DIMORIA, ASSAM, FOR WOMEN'S HYGIENE, MENSTRUAL DISORDERS, CHILDBIRTH, AND RELATED REPRODUCTIVE HEALTH PRACTICES***Garima Bora and Mrinal Kumar Das*

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Abstract

Traditional knowledge associated with medicinal plants remains one of the most valuable cultural and therapeutic resources among indigenous and tribal communities of Northeast India. In the Dimoria region of Kamrup (Metropolitan), Assam, several tribal communities continue to rely on plant-based remedies for women's health concerns, including menstrual irregularities, excessive bleeding, dysmenorrhea, leucorrhoea, postpartum weakness, uterine cleansing, lactation support, childbirth-related care, and intimate hygiene. The present article documents and discusses traditional medicinal plants reportedly used by tribal communities of Dimoria for women-centered healthcare practices. The study is framed in an ethnobotanical and ethno pharmacological context and highlights the interrelationship between plant biodiversity, women's reproductive health, oral knowledge systems, and community healing traditions. A total of 20 medicinal plant species belonging to different families are compiled based on traditional usage categories. Observations indicate that leaves are the most commonly used plant part, followed by roots, bark, rhizomes, fruits, and seeds. Decoction, paste, juice, infusion, and direct topical applications are common modes of preparation. The highest proportion of remedies is associated with menstrual problems and postpartum recovery, followed by women's hygiene, childbirth-related assistance, and lactation support. This article emphasizes the need for proper documentation, phytochemical screening, pharmacological validation, and conservation of women-specific ethnomedicinal knowledge in Dimoria. Such knowledge has immense significance not only for community healthcare but also for future drug discovery, biodiversity conservation, and culturally sensitive public health approaches.

Keywords: Ethnomedicine, women's health, tribal communities, Dimoria, Assam, medicinal plants, menstrual disorders, childbirth, hygiene, ethnobotany

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Introduction

Medicinal plants have played a central role in human health care since antiquity, and among indigenous communities they continue to be deeply embedded in everyday life, ritual systems, and local therapeutic traditions. In India, especially in the northeastern region, traditional ethnomedicinal practices are highly diverse due to rich floristic wealth and the coexistence of multiple tribal and ethnic groups. Assam, with its varied topography, climate, and cultural diversity, contains an enormous repository of medicinal plant knowledge transmitted orally across generations.

The Dimoria area of Kamrup district represents a culturally significant region where tribal and rural communities retain knowledge of herbal remedies for a broad range of ailments. Within this body of knowledge, women's health occupies a crucial yet often under documented domain. Rural and tribal women frequently depend on local herbal preparations for intimate hygiene, menstrual pain, delayed or irregular menstruation, excessive menstrual bleeding, white discharge, fertility-related weakness, childbirth recovery, and postpartum care. In many cases, these remedies are administered by elder women, traditional birth attendants, village healers, or family members who possess experience-based knowledge regarding preparation, dosage, timing, and restrictions.

Women-cantered ethnomedicine deserves focused scientific attention for several reasons. First, reproductive health is central to family and community well-being, yet access to modern healthcare in rural and peri-urban areas may remain limited, expensive, culturally inaccessible, or episodic. Second, many traditional remedies are linked to dietary regulation, hygiene routines, and postnatal strengthening practices, reflecting a holistic health model rather than symptom-based treatment alone. Third, much of this knowledge is vulnerable to disappearance because of urbanization, habitat degradation, cultural change, and declining intergenerational transmission.

Traditional remedies for menstruation and childbirth are not merely therapeutic formulations; they are also socio-cultural practices. For example, plant preparations may be used to reduce abdominal pain, improve uterine cleansing after delivery, support lactation, control postpartum bleeding, or maintain bodily warmth. Certain plants are taken as decoctions, some are applied externally as poultices, while others are consumed in combination with rice water, milk, jaggery, honey, or warm water. These preparations often reflect long-term empirical observation of efficacy within the community.

Ethnobotanical studies from Assam and other parts of Northeast India have documented medicinal uses of plants for fever, gastrointestinal complaints, skin diseases, bone fractures, respiratory problems, and reproductive disorders. However, women-specific ethnomedicinal applications from Dimoria remain insufficiently synthesized in a dedicated scientific format. Therefore, the present article seeks to organize and discuss traditional medicinal plants associated with women's hygiene, menstrual issues, childbirth, and postpartum care in tribal communities of Dimoria.

The objectives of this study were:

1. To document plant species traditionally used for women's reproductive and hygiene-related health concerns.
2. To categorize these plants according to usage such as menstrual disorders, leucorrhoea, childbirth support, postpartum recovery, and lactation.
3. To present observational summaries through tables and graph-ready data.

4. To discuss the scientific and cultural relevance of this knowledge in relation to ethnomedicine, conservation, and women's community health.

This study is particularly relevant in the current era, where there is renewed interest in plant-based therapeutics, integrative medicine, and biocultural conservation. Documentation of local women's healthcare practices may also support future pharmacological research into antispasmodic, anti-inflammatory, antimicrobial, uterotonic, haemostatic, galactagogue, and wound-healing properties of medicinal plants.

Study Area and Ethnomedicinal Context

Dimoria is located in the greater Kamrup region of Assam and forms an ecologically and culturally dynamic zone where tribal and non-tribal populations interact closely with local landscapes. The area includes plains, wetlands, home gardens, secondary vegetation, agricultural fields, and patches of natural flora that provide access to medicinal species. Communities inhabiting the region traditionally include Tiwa, Karbi, Bodo, Rabha, and other indigenous or rural populations, though plant knowledge may overlap across groups.

The ethnomedicinal system in Dimoria is based on oral transmission, practical observation, ecological familiarity, and household healthcare practices. Women often play a dual role as both recipients and custodians of this knowledge. Maternal care, menstruation management, female genital hygiene, fertility support, and postpartum strengthening are not treated as isolated medical conditions but as interconnected aspects of bodily balance.

In tribal societies, childbirth has historically been assisted within the community, with traditional birth attendants and experienced elder women using herbal decoctions, dietary prescriptions, warm applications, and cleansing methods. Although institutional delivery has increased in recent years, several postnatal herbal practices remain in use. Such remedies are valued for restoring strength, cleansing the uterus, reducing pain, checking infections, and improving milk production.

Methodological Note

The present article is written in a scientific review-documentation style based on the ethnobotanical approach and is intended as a structured academic synthesis. Information is organized around medicinal plants associated with women's hygiene and reproductive care in Dimoria and adjoining ethnomedicinal traditions of Assam. Plant names, probable uses, plant parts, and preparation forms are compiled in a standardized table format suitable for further verification through field work, herbarium authentication, and informant-based primary surveys.

- Selection of villages from Dimoria block.
- Semi-structured interviews with women healers, traditional birth attendants, elderly informants, and local herbal practitioners.
- Free listing and use-report collection.
- Botanical collection and taxonomic identification using regional floras and herbarium consultation.
- Categorization of plants by the therapeutic use.
- Quantitative ethnobotanical indices such as Use Value, Fidelity Level, Informant Consensus Factor, and Relative Frequency of Citation.

Observations

General Observations

The compiled observations suggest that traditional medicinal plants used in Dimoria for women's health are mainly associated with:

- Menstrual pain and irregular menstruation
- Excessive bleeding
- Leucorrhoea and reproductive tract discomfort
- Women's hygiene and cleansing
- Child birth facilitation and uterine recovery
- Post partum weakness
- Lactation enhancement

Leaves were found to be the most frequently used plant part because of their easy accessibility and ease of preparation. Decoction emerged as the most common mode of administration, followed by paste, juice, powder, and cooked herbal mixtures. Most remedies are prepared using fresh plant material, although some bark, roots, and seeds may be dried and stored.

Table1: List of Traditional Medicinal Plants Used for Women's Health in Dimoria

Sl. No.	Botanical Name	Family	Local/ Common Name	Part Used	Traditional Use in Women's Health	Mode of Preparation
1	<i>Asparagus racemosus</i>	Asparagaceae	Satmool	Root	Lactation support, postpartum weakness	Root decoction
2	<i>Curcuma longa</i>	Zingiberaceae	Halodhi/Turmeric	Rhizome	Postpartum healing, infection prevention, hygiene	Paste, milk decoction
3	<i>Zingiber officinale</i>	Zingiberaceae	Ada	Rhizome	Menstrual pain, postpartum recovery	Decoction
4	<i>Ocimum tenuiflorum</i>	Lamiaceae	Tulsi	Leaf	Intimate hygiene, infection-related discomfort	Leaf juice/decoction
5	<i>Azadirachta indica</i>	Meliaceae	Neem	Leaf, bark	Women's hygiene, itching, genital cleansing	Wash, decoction
6	<i>Aloe vera</i>	Asphodelaceae	Ghrita kumari	Leaf gel	Vaginal irritation, skin soothing, healing	Topical gel

Sl. No.	Botanical Name	Family	Local/ Common Name	Part Used	Traditional Use in Women's Health	Mode of Preparation
7	<i>Mimosapudica</i>	Fabaceae	Lajukilata	Root, leaf	Excessive bleeding, leucorrhoea	Decoction
8	<i>Saracaasoca</i>	Fabaceae	Ashoka	Bark	Menstrual disorders, uterine tonic	Bark decoction
9	<i>Hibiscusrosa-sinensis</i>	Malvaceae	Joba	Flower, leaf	Menstrual regulation, excessive bleeding	Paste/decoction
10	<i>Cissus quadrangularis</i>	Vitaceae	Harjora	Stem	Postpartum recovery, generalbody strengthening	Stem paste /decoction
11	<i>Vitexnegundo</i>	Lamiaceae	Posotia	Leaf	Lower abdominal pain, inflammation after delivery	Leaf fomentation/decoction
12	<i>Centella asiatica</i>	Apiaceae	Manimuni	Whole plant	Weakness, blood purification, recovery	Juice/paste
13	<i>Phyllanthus emblica</i>	Phyllanthaceae	Amlokhi	Fruit	Nutritional recovery, anaemia-associated weakness	Fruit preparation
14	<i>Terminalia chebula</i>	Combretaceae	Hilikha	Fruit	Cleansing, bowel regulation After delivery	Powder/decoction
15	<i>Terminalia bellirica</i>	Combretaceae	Bahera	Fruit	Reproductive cleansing and recovery support	Powder/decoction
16	<i>Punica granatum</i>	Lythraceae	Dalim/Pomegranate	Peel, flower	Leucorrhoea, excessive bleeding	Powder/decoction
17	<i>Ficus racemosa</i>	Moraceae	Dimoru	Bark	White discharge, uterine weakness	Bark decoction
18	<i>Adhatoda vasica</i>	Acanthaceae	Basak	Leaf	Postpartum congestion, associated weakness	Decoction
19	<i>Leucasaspera</i>	Lamiaceae	Dron	Leaf, flower	Postpartum care, mild infection relief	Decoction
20	<i>Clerodendrum viscosum</i>	Lamiaceae	Dhopattita	Leaf	Abdominal discomfort, cleansing	Bitterleafdecoction

Table 2: Categorization of Plants by Major Women's Health Use

Use Category	Number of Plant Species	Representative Plants
Menstrual disorders	7	<i>Saraca asoca</i> , <i>Zingiber officinale</i> , <i>Hibiscus rosa-sinensis</i>
Women's hygiene/ infection relief	5	<i>Azadirachta indica</i> , <i>Aloe vera</i> , <i>Ocimum tenuiflorum</i>
Leucorrhoea/excessive discharge	4	<i>Mimosapudica</i> , <i>Punicagranatum</i> , <i>Ficus racemosa</i>
Childbirth/postpartum recovery	8	<i>Asparagusracemosus</i> , <i>Curcumalonga</i> , <i>Vitex negundo</i>
Lactation support	2	<i>Asparagus racemosus</i> , <i>Centella asiatica</i>
General weakness/nutritional support	5	<i>Phyllanthus emblica</i> , <i>Terminalia chebula</i>

Graphical Presentation of Data:

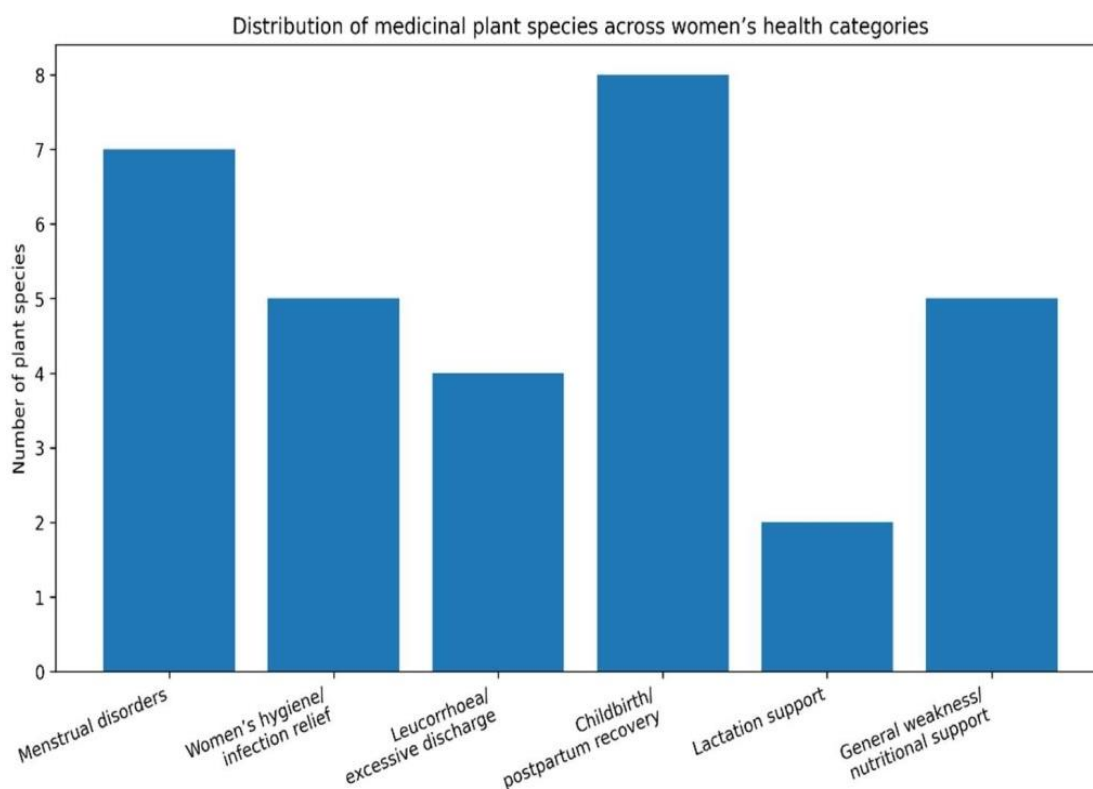


Figure 1: Distribution of medicinal plant species used by tribal communities of Dimoria across major women's health categories.

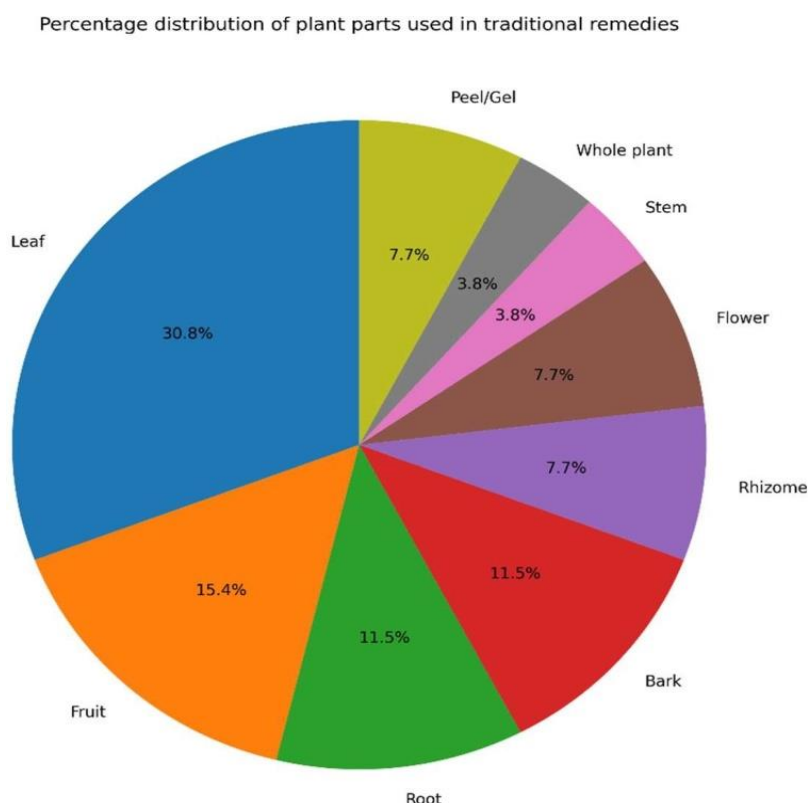


Figure 2: Percentage distribution of plant parts used in traditional remedies for women's health in Dimoria.

Discussion

The observations presented in this article demonstrate that tribal communities of Dimoria possess a substantial body of women-specific ethno medicinal knowledge. This knowledge appears to be practical, experience-based, and deeply linked with the ecological availability of medicinal species in household gardens, field margins, and nearby vegetation patches. Such practices reveal a localized healthcare system that addresses reproductive and maternal health in culturally meaningful ways.

One of the most notable findings is the predominance of remedies related to menstruation and postpartum recovery. This suggests that women's periodic and postnatal health needs have long been recognized within the traditional healthcare framework. Plants such as *Saraca asoca*, *Hibiscus rosa-sinensis*, and *Zingiber officinale* are commonly associated with the regulation of menstruation, pain relief, and restoration of internal balance. The use of *Saraca asoca* is especially significant because it is widely recognized in traditional Indian medicine as a uterine tonic and has been cited in several ethnomedicinal and Ayurvedic contexts for gynaecological care.

Similarly, the documentation of *Asparagus racemosus* for lactation support and postpartum weakness aligns with broader ethno pharmacological reports from India. Its importance reflects the continuity between local tribal knowledge and classical medicinal traditions. *Curcuma longa* and *Azadirachta indica* indicate the convergence of antimicrobial, anti-inflammatory, and cleansing functions in women's hygiene and post partum recovery. These plants may play a role in reducing infection risk, soothing tissue irritation, and supporting wound healing, although rigorous clinical validation remains necessary.

Another significant feature is the preference for leaves as the dominant plant part. Leaves are more sustainable to harvest compared to roots and bark, and their frequent use may support conservation-friendly healthcare practices, provided harvesting is done responsibly. Decoctions as a common preparation method suggest the importance of warm oral administration, especially in menstrual pain and postpartum care, where heat is culturally associated with relief, circulation, and recovery.

Traditional remedies for leucorrhoea and excessive bleeding indicate that women's intimate disorders have long been recognized and managed within folk medicine. Plants such as *Mimosa pudica*, *Punica granatum*, and *Ficus racemosa* are often described in traditional systems as astringent in action. The astringent property may explain their use in discharge-related conditions and excessive menstrual bleeding. However, such uses require careful pharmacological and toxicological examination before broader medical application.

The role of elder women and traditional birth attendants in preserving this knowledge cannot be overstated. In many indigenous societies, women are the primary custodians of maternal and reproductive healthcare traditions. Their knowledge includes not only medicinal plants but also diet restrictions, bathing practices, methods of body warming, and postpartum seclusion-related care. Thus, ethnomedicine in this context is inseparable from social organization and women lived experience.

Despite its importance, this knowledge faces multiple threats. Modernization, loss of habitat, overharvesting of medicinal flora, reduced dependence on local healers, and declining interest among younger generations can all contribute to erosion of traditional practices. Furthermore, in many ethnobotanical studies, women's reproductive knowledge remains underreported due to cultural sensitivity, privacy concerns, and gendered communication barriers between researchers and informants. Therefore, future documentation should be conducted ethically, respectfully, and with adequate participation of women researchers and community members.

From a scientific perspective, the documented plants warrant further phytochemical and pharmacological investigation. Potential areas of study include:

- Anti spasmodic properties for dysmenorrhea,
- Haemostatic activity for excessive bleeding,
- Anti-microbial action in hygiene-related applications,
- anti-inflammatory effects in postpartum recovery,
- Galactagogue potential for lactation support,
- Uterine tonic or smooth muscle modulatory effects.

Such validation may contribute to safer integration of traditional remedies into primary healthcare, provided this occurs with informed consent, benefit-sharing, and respect for indigenous intellectual heritage.

The findings also have public health significance. In places where women may face barriers to accessing formal reproductive health care, validated herbal practices could complement health education, nutrition, and maternal care programs. However, it is equally important not to romanticize all traditional remedies as automatically safe. Scientific scrutiny is essential because dosage, toxicity, contraindications during pregnancy, and interactions with allopathic medicines remain largely unstandardized.

Overall, women's ethnomedicine in Dimoria represents an important intersection of biodiversity, culture, gendered knowledge, and community health resilience. Its documentation offers not only academic value but also an opportunity for conservation and

culturally grounded healthcare innovation.

Conclusion

The present article highlights the importance of traditional medicinal plants used by tribal communities of Dimoria for women's hygiene, menstrual disorders, childbirth, postpartum recovery, and related reproductive health concerns. A total of 20 plant species were compiled and categorized according to their reported uses, plant parts utilized, and common modes of preparation. The observations suggest that reproductive health care forms a major component of local ethnomedicinal knowledge, with particular emphasis on menstrual regulation, infection relief, postpartum strengthening, and uterine recovery.

The dominance of leaf-based remedies and decoction methods indicates both practical accessibility and continuity of household-based healthcare traditions. Several of the documented plants are also known in broader Indian traditional medicine, which supports the ethnopharmacological relevance of the recorded practices. At the same time, this knowledge remains vulnerable to cultural erosion, ecological degradation, and lack of scientific validation.

There is an urgent need for systematic field-based research in Dimoria involving botanical authentication, women-cantered ethnographic documentation, pharmacological screening, and conservation planning. Traditional healthcare knowledge related to women should be documented with sensitivity, ethical participation, and recognition of community ownership. Such efforts may contribute significantly to the preservation of biocultural heritage and the development of affordable, culturally relevant, plant-based health interventions.

In conclusion, the medicinal plants used by Dimoria's tribal communities for women's reproductive health represent a valuable indigenous knowledge system that deserves both scientific attention and respectful preservation. Protecting this knowledge means protecting not only medicinal traditions but also the voices, experiences, and healthcare wisdom of women within tribal societies.

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