

Therapeutic Value of Mahua and Its Indigenous Use in Health Care among the Tribal Communities of Antagarh Tehsil of the Kanker District in Chhattisgarh

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ABSTRACT: The tribal region of Central India contains a substantial number of plants, which serve as crucial sources of sugars, proteins, vitamins, minerals and enzymes with potential therapeutic and nutritional effects. Among these, the Mahua is of particular interest due to its extensive application in the daily life of tribal communities. It is one of the essential medicinal trees growing thoroughly in the tribal areas of Central India, especially in the Bastar division of Chhattisgarh. This study is of utmost importance as it aims to uncover the folk medicinal aspect of Mahua in the lives of the tribal communities. Additionally, the paper seeks to understand the cultural and therapeutic significance of food derived from Mahua in tribal culture, particularly among the Gond and Halba. The study was conducted in Antagarh Tehsil of the Kanker district in Chhattisgarh, a comprehensive exploration of the Mahua's role in tribal communities. The Kanker district of Bastar division is a tribal-dominated area with many tribal populations known for their unique culture and indigenous lifestyle.

INTRODUCTION

Folk knowledge, developed over generations, is a vital part of magico-religious rituals and a testament to the remarkable harmony with nature. In ethno-medicinal practices, it is deeply rooted in culture. It plays a crucial role in identifying, diagnosing, and treating diseases, contributing significantly to good health, a vital component of human life. The indigenous system of medicine, known as folk medicine, is a powerful tool that not only treats and prevents diseases but also preserves and celebrates cultural beliefs and practices. Universally, folk ethno-medicinal practices are seen as indigenous medical knowledge recognized in the community, which

transmits from one generation to another through traditions, various taboos, assumptions, and beliefs in their society.

For generations, the tribal community has relied on the natural environment for their livelihood and daily needs. Living in forests since ancient times, they have discovered the medicinal properties of many trees. Among these, *Madhuca longifolia* (also known as *Madhuca indica*; Family-Sapotaceae) stands out for its exceptional therapeutic value. This deciduous tree, Mahua, is a nutritional powerhouse, thriving in dry tropical climates. It is predominantly found in the tribal areas of Jharkhand, Orissa, West Bengal, Chhattisgarh, Madhya Pradesh, Orissa, Maharashtra and Andhra Pradesh. This tree's various parts and products are widely used as indigenous medicine to

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treat various diseases, making it a highly nutritious and beneficial resource for the tribals. Mahua is often called buttercup or butternut and is renowned for its medicinal properties in tribal areas.

“The mahua tree is a source of food, oil, and alcohol; therefore, it is looked upon with respect” (Elwin, 2018, pp. 82). Mahua is rich in sugar, vitamins, protein, alkaloids and phenolic compounds. It has antibacterial, anticancer, hepatoprotective, analgesic and antioxidant properties (Mishra and Pradhan, 2013, pp.32). In tribal life, Mahua flowers and fruits are used as food. Tribals use Mahua to make culturally important local food products. It provides food, vanaspati ghee, and Mahua beverages; hence, the Mahua is very culturally significant in the tribal community.

Mahua is culturally significant in preparing food items and completing socio-economic activities in tribal life. It is medicinally important, with the Mahua used to make various medicines. The Gond and Halba tribes in the Kanker district consume Mahua as cultural food and medicinal items. The collection of Mahua flowers is a primary source of income, and Mahua flowers are involved in various socio-economic activities such as trade and barter. From March to April every year, they collect the Mahua flowers for food and to meet their daily expenses. They buy food products like rice from the market according to their needs in exchange for Mahua. For a long time use, Mahua is dried in sunlight. The Mahua flower absorbs atmospheric moisture soon because of its hygroscopic nature. While storing it, a protective measure needs to be adopted, such as having no contact with the air; otherwise, dried stored Mahua moistures quickly, and the chances of spoilage increase. Therefore, while storing Mahua, the tribal people dry it repeatedly in the sunlight and keep it by pressing it with their feet in a bamboo vessel called *Dhongi*. Mahua is not only a staple food for these tribes but also a rich source of nutrients and medicinal properties, making it an integral part of their lives.

They use Mahua's flowers, fruits, seeds, leaves, bark, roots, oil, juice, and food products made from Mahua as medicine. Among the Gonds and Halba of Bastar division, it is customary to perform birth, marriage, and death rituals by offering Mahua beverages. In their cultural life, Mahua beverage is

provided to welcome and honour the guests and to present to the ancestor spirits for appeasing in various feasts and festivals. It is culturally important in the rituals on every occasion, from birth to death, in tribal culture.

The Mahua flower, also known as the Koya flower, holds a significant place in the cultural and dietary practices of the Gond and Halba communities. According to their belief systems, the consumption of Mahua not only sustains them but also contributes to their overall health and well-being. The Mahua flower is a rich source of sugar, protein, minerals, fats, fibres, enzymes, and amino and organic acids (Patel and Naik, 2010, pp.439). Torah, a valuable product, is obtained from the Mahua fruit, which gives edible oil. This oil, known locally as natural ghee, is a staple in their cooking. The present study delves into the therapeutic and nutritional properties of Mahua, shedding light on the indigenous knowledge system of Gond and Halba. It also underscores the cultural and nutritional value of Mahua as a food and medicine.

Objectives: Under the study's objective, we aim to uncover the folk medicinal aspect of Mahua in tribal culture, particularly among the Gond and Halba of Bastar. We also investigate the vast potential of Mahua as a food and medicine in the food and pharmaceutical industry, a potential that is yet to be fully realized. Our study sheds light on the use of Mahua in disease treatment and health maintenance and highlights its commercial value in the food industry. It is crucial to understand the potential of Mahua as an industrial ingredient, particularly its flowers, fruits, seeds, and oil, as it can pave the way for its practical applications, underscoring the significance of our study and intriguing the people about its potential.

MATERIALS & METHODS

The study area has been selected through purposive sampling to fulfil the research objectives. The study is based on two-gram panchayats, namely Amabeda and Bhainsasur of Antagarh tehsil of Kanker district. These areas were chosen due to the high concentration of Mahua trees, a significant environmental resource for the local tribal populations. Fifty-six panchayats come under the Antagarh tehsil, out of which Amabeda and

Bhainsasur panchayats have been chosen based on the high concentration of the Gond and Halba tribal populations. Three villages, namely Amabeda, Sodhe and Nagar Bada, come under the Amabeda panchayat, and only one village, Bhainsasur, is under the Bhainsasur panchayat. The villages, namely Amabeda, Sodhe of Amabeda panchayat, and Bhainsasur of the Bhainsasur panchayat, have been included in the study. The number of families belonging to the Gond and Halba tribes in the three villages is 1200, of which 460 (About 40 percent) families have been selected for the study. Of the total selected families (460), 230 families from the Gond and Halba tribes each have been included in the study, ensuring a balanced and fair representation.

Two hundred thirty families each from the Gond and Halba tribes were selected for a comprehensive study. The aim was to understand the practical applications of the cultural value of Mahua-made food products used in socio-cultural ceremonies and using products made from Mahua to treat diseases. This in-depth study involved group discussions to understand the folk medicinal use of Mahua deeply. Mahua leaves, oil, bark and flowers are used in treating many diseases and injuries such as burn wounds, bone fractures, muscle injury, pruritus, skin disease, headache, rheumatism, piles, vomiting, abdominal pain, ulcer, tonsil, gum pain, sugar, inflammation, bleeding and respiratory problem, which is compiled through group discussion with the people of Gond and Halba tribe.

For data collection, we employed semi-participant observation and unstructured interview schedules. Unstructured interviews were conducted with individuals from the Gond and Halba tribes in several villages of the Antagarh tehsil. To ensure the credibility of our findings, we selected Baiga (*Sirha*), a respected figure with traditional medicinal knowledge, as a key informant. His insights, which were valuable and instrumental, were crucial in understanding the medicinal knowledge related to Mahua.

DISCUSSION

The tribes always prefer home remedies for treating diseases from the plants and herbs around them. Among the trees, Mahua in the tribal community is used as a

primary food, beverage, medicine, and cultural food product due to its multi-usefulness. This tree's root, leaf, flower, and fruit treat many diseases. For instance, Mahua flowers are used to treat cough and dysentery. The process involves drying the flowers and then boiling them in water to make a decoction. Similarly, Mahua fruit is taken in malnutrition, facial swelling, and muscular pain. The paste prepared from Mahua seeds is applied to treat ringworm, itching, cracked heels, and wounds due to burning. The oil extracted from the Mahua seed treats indigestion, gastric disease, ulcers, anthelmintics, inflammation, bile and phlegm, and it is a painkiller. Skin diseases, gastric problems, headaches, knee pain and pimples are treated with Mahua *cake* (residue left after extracting oil from Mahua seeds). Mahua leaves heal sprains, swelling, wounds, boils and pimples. Mahua bark is utilized to treat diarrhoea, piles, and rheumatism. Jaundice, piles, boils and pimples are treated with the Gum of the Mahua tree. The powder prepared from the root of the Mahua is taken to cure diarrhoea, intestinal worms, skin diseases, and stomach ulcers. The Mahua beverage is given to treat bile, indigestion, phlegm, headache, swelling of testicles, ulcers, skin diseases, rheumatism, and epilepsy.

Ethno-medicinal Uses of Mahua Flower, Fruit, Seed, Oil, Leaf, Bark and Gum

Mahua Flower: An Indigenous Medicine: The Mahua flower, an indigenous remedy deeply rooted in tribal culture, is a natural and organic solution to health issues. It is taken with food to treat cough, loose stools, and fever. For a cough, a decoction (juice) prepared from the Mahua flower is given to drink in half a cup in the morning and evening for two days. The process of preparing this decoction involves boiling the Mahua flowers in water until the liquid reduces to half. If someone struggles with breathing due to phlegm and mucus, the juice extracted from fresh Mahua flowers is given to drink. A decoction (juice) made of dried Mahua flower is given one cup twice daily for fever and body energy. Dry Mahua flowers are cleaned, fried with the gram, and consumed on an empty stomach to remove physical weakness. "The dried flowers of Mahua contain 2-17 grams of natural sugar (maltose, sucrose)" (Fowler *et al.*, 1920, pp. 86). "Its dried flowers contain sugar-reducing substances 48-58 (fructose, levulose,

glucose)” (Awasthi et al., 1975, pp.382). Its flowers contain vitamins 5-6 grams (vitamins A and C, thiamin, riboflavin, niacin, folic acid and ascorbic acid) (Patel, 2018, pp. 2074).

Severe shivering with sudden coldness in the body, immediately followed by fever. After some time, the fever subsides with sweating, dizziness, and breathlessness. Upon seeing these symptoms, it is believed that the person has Malaria. In Malaria, the Mahua flower and Charota Bhaji (*Cassia tora*) are cooked by mixing and consumed for five days. The emphasis on the Indigenous use of the Mahua flower not only aids in healing but also helps the tribal community preserve its cultural heritage. The Mahua flower symbolizes the deep-rooted traditions and practices of the tribal culture, fostering a sense of cultural preservation and continuity.

Three teaspoonfuls of Mahua juice mixed with two pinches of dhoop (resin of shal tree) are taken in loose stools. A cup of juice prepared from fresh Mahua flowers is consumed in case of bile defects. The symptoms of sleeplessness, excessive tiredness, burning sensation in the body, feeling hot, excessive sweating and dizziness, and bitter and sour taste indicate that a person suffers from bile defects.

If there is pain and swelling somewhere in the body, a pulping (crushed) made from its flowers is heated slightly and applied to the affected part. In knee pain, Mahua’s dry flowers are cleaned and cooked well in a bowl of goat milk and are consumed on an empty stomach for a week. When one testicle of the child is large and the other is small, it is believed there is swelling in the testicle. For its treatment, Mahua flowers are lightly heated and baked with the help of cloth for a week, morning and evening.

Paste is prepared by grinding fresh Mahua flowers and turmeric to make a face beautiful. It is applied to the face, and after some time, it is washed with clean water. For the graceful face, five dry Mahua flowers are soaked in the night, and after brushing their teeth in the morning, they are chewed and eaten on an empty stomach.

Medicinal and Nutritional Properties of Mahua Fruit

More than just a culinary ingredient, Mahua fruit

is a potent, natural remedy for hair loss and malnutrition. Its recommended use is a valuable guide for health-conscious individuals. If someone faces hair loss, untimely hair whitening, and malnutrition, they are advised to consume Mahua’s raw fruit on an empty stomach after brushing their teeth in the morning. Women and children suffering from malnutrition consume vegetables made from Mahua and Kulthi (lentil) fruits. Additionally, Mahua fruit, with its versatile uses, is cooked with goat’s milk as a recommended natural remedy for treating facial swelling, and it is taken on an empty stomach in the morning.

The Mahua fruits are used to make vegetables. It contains protein, fat, carbohydrates, minerals, calcium, phosphorus, iron, carotene, ascorbic acid, vitamin C, and tannins (Saif et al., 2020, pp. 173). In muscle pain, Mahua fruits and raw grams are cooked and taken as a vegetable. When someone is tired, the soup prepared from Mahua fruit and white muesli (*Chlorophytum borivillianum*) is given on an empty stomach in the morning. For good height, it is advised that the children take two raw Mahua fruits on an empty stomach in the morning and evening. In anaemia, two Mahua fruits with a glass of milk or two fresh Mahua fruits are given to eat daily on an empty stomach in the morning. When there is dizziness, feelings of weakness and fainting, the body is believed to lack blood.

Mahua Seeds as Medicine

The oil extracted from Mahua seeds is a powerful and effective remedy, serving both culinary and medicinal purposes. It is a staple in cooking and body care, and is also used to treat a variety of ailments such as cracked heels, ringworm, itching, and burns. The paste prepared by grinding the Mahua seeds is a potent application for burn wounds, while the crushed seeds are a soothing balm for cracked heels. For those suffering from ringworm or itching, a paste made from Mahua seeds and the ‘*Ramdatun*’ herb offers relief when applied to the affected area. “Proteins, fats, carbohydrates, minerals, calcium, phosphorus, iron, carotene, ascorbic acid, and tannins are found in ripe seeds of Mahua” (Bisht et al., 2018, pp. 3415).

Health Benefits of Mahua Oil

Mahua oil, extracted from the seeds of the Mahua

tree, is a versatile remedy. The seeds are first collected and then processed to extract the oil. This oil is then used as a painkiller and for treating a variety of ailments, including skin diseases, gas, ulcers, anthelmintics, piles, swelling, bile and phlegm. In case of headache, body pain, back pain and knee pain, the affected parts of the body are massaged with this oil. Mahua oil is applied to the body in extreme cold. Mahua oil is rubbed on the affected parts of the body to treat skin diseases. Mahua oil is rubbed on the body to prevent mosquito bites because it is slightly bitter and pungent. They always prefer to use Mahua oil when preparing food to keep the digestion process healthy. Foods made from this oil are especially consumed for treating ulcers.

Ethno-medicinal Uses of Mahua Cake

The residue left after extracting oil from Mahua seeds, known as Mahua cake, is a natural and organic product. It serves multiple purposes, including as cattle feed to boost milk production and as fertilizer and insecticide in agricultural fields.

Mahua cake also has medicinal properties; it can help treat skin diseases, indigestion, headaches, knee pain, and pimples. The cake is ground and applied to the affected areas to cure skin diseases. The cake is boiled in water, and the resulting mixture is consumed to alleviate indigestion. The cake is soaked in hot water and applied to cure headaches. If someone suffers from knee pain, the cake is mixed with water, boiled, and backed with a cloth for application. If someone suffers from pimples, it is soaked in hot water and applied to the face.

Additionally, if there are many mosquitoes in the house, Mahua cake can be burned to repel them. If a snake enters a home, burning Mahua cake can help drive it away.

Medicinal Properties of Mahua Leaves

Mahua leaves, versatile in their medicinal applications, are used to treat various health issues. Boils, wound healing, and swelling are among the issues that can effectively be addressed with Mahua leaves. In case of a sprain or swelling in the hand and foot, Mahua leaves are heated after applying Mahua oil and applied to the affected parts. Mahua leaves are ground and applied to heal wounds. The leaves

are crushed with raw turmeric and applied on boils or pimples. Even in colds and coughs, Mahua leaves prove beneficial when crushed and boiled after adding two pinches of salt and then given to drink. The leaves also serve a unique purpose in food safety, as the plate made from Mahua leaves is a reliable method of keeping food healthy.

Mahua Bark As Medicine

Arthritis, loose stools and piles are treated with Mahua bark. In the case of rheumatism, Mahua bark is dried and made into powder, then heated in goat's milk and given to drink on an empty stomach in the morning. The fresh bark of Mahua is ground and taken with water in loose stools. In the case of piles, an equal quantity of Mahua bark is added to mango bark. It is crushed and taken on an empty stomach in the morning and evening. In case of a burning sensation in the body or urine, it is advised that a cup of juice prepared from the bark of the Mahua tree is taken on an empty stomach after brushing in the morning.

Health Benefits of Mahua Gum (Milk)

Mahua tree milk, a potent natural remedy, is extracted by cutting the tree's bark. This process results in the formation of *Gum* after drying. This powerful substance is not just versatile but also highly effective in curing various health issues, including jaundice, piles, boils, and pimples. In jaundice, fresh Mahua milk is taken on an empty stomach with the powder of Tikhurkand (*Curcuma angustifolia*). In piles, fresh Mahua milk is taken on an empty stomach in the morning. Fresh Mahua milk added with soft leaves of *Chakramardani* (*Cassia tora*) is consumed to treat boils and pimples.

Ethno-medicinal Uses of Mahua Root

Mahua root, a versatile herbal remedy, is used to treat various ailments, including diarrhoea, intestinal worms, skin diseases, and stomach wounds. For diarrhoea, the root is crushed and consumed. In the case of skin diseases, a paste made from the ground root is applied to affected areas. When dealing with stomach wounds, a powder derived from the root is ingested on an empty stomach in the morning and evening.

Indigenous Uses of Mahua Beverage as Medicine

Mahua beverage, a traditional natural remedy, has been used for generations to treat various ailments. It is believed to be effective in addressing bile, phlegm, swelling of the testicles, ulcers, skin diseases, rheumatism, digestion, headache, and epilepsy. For instance, a fresh Mahua drink is taken with Annato (Sindoor) (*Bixa orellana*) seeds to combat bile disease. Similarly, when phlegm accumulates, *Sindoor* root powder mixed with fresh Mahua beverage is taken on an empty stomach in the morning.

For those dealing with testicle swelling, a fresh Mahua drink with the powder of the root of Ishwarmool (*Aristolochia indica*) is effective when taken on an empty stomach in the morning and evening. In case of an ulcer, the combination of *Ketaki* (*Agar americana*) crushed leaves with fresh Mahua beverage has shown promising results when taken on an empty stomach in the morning. Applying a fresh Mahua beverage mixed with Karanj seeds powder has been known to cure skin diseases. Applying a fresh Mahua beverage mixed with the powder of Mustard (*Brassica campestris*) seeds is beneficial for rheumatism. In headaches, a fresh Mahua drink mixed with the ground root of wild cabbage (*Launae pinnatifida*) is rubbed on the affected area.

The Mahua beverage, a versatile elixir, is taken on an empty stomach with the powder of *Keu* tuber (*Costus spexosus*) to improve the digestive system. Fresh beverage of Mahua is taken on an empty stomach in the morning and evening with the powder of the root of Neer Brahmi (*Copa monnieri*) for treating epilepsy. Fresh Mahua beverage is rubbed on the body, and half a cup of Mahua beverage is drunk to prevent airborne diseases or epidemics. If an aged person has a problem of sleeplessness (Insomnia), they prefer to drink half a cup of fresh Mahua beverage in the evening, one hour before eating. After throwing mud, cutting wood, tearing wood, and breaking stones, they are exhausted and shattered; to overcome that fatigue, they drink a cup of fresh Mahua beverage an hour before having dinner in the evening.

Uses of Mahua Flower and Seed as Food

Mahua, known as *Iroom* in Gondi, holds a significant place in indigenous knowledge. Its various

food items, such as *Iroom lata*, *Iroom Larang lata*, *Iroom Koda Gato*, etc. prepared from natural and organic Mahua flowers and Mahua Laddoos from Mahua seed, are given to cure a wide range of ailments. These include colds, coughs, fevers, rheumatism, and stomach-related diseases. The use of these versatile ingredients not only effectively treats these health issues but also promotes overall health, showcasing the rich cultural heritage and wisdom of indigenous medicine.

Iroom lata, a unique food item prepared from dried Mahua flowers, increases the body's immunity and prevents disease. Another food item, '*Iroom Larang lata*' prepared from Mahua flower and sesame seed, is used in arthritis and stomach-related diseases. *Iroom Koda Gato*, prepared from Mahua flower and Kodo, is used in curing blood-related diseases, sleeplessness and skin diseases. Mahua laddoos prepared from Mahua seed are consumed to treat physical weakness.

Iroom lata: After cleaning the Mahua flower thoroughly, water is heated in an earthen pot. Steam is poured over dried Mahua flowers for some time. After that, they are crushed and prepared like jaggery called *Iroom Lata*. This nutritious *food item* is a staple during the rainy season, especially during heavy rains. People of all ages, from children to the elderly, prefer to consume *Iroom Lata* to maintain their health. It is believed to boost immunity and is also consumed to relieve cough, cold, and fever, making it a wise and healthy choice for all.

Iroom Larang Lata: *Iroom Larang Lata*, a potent indigenous remedy for rheumatism and stomach-related ailments, is prepared by blending dried Mahua flowers with sesame seeds. The process involves roasting the Mahua flowers, separating its cumin with a strainer, crushing the roasted Mahua flowers and sesame seeds with a pestle and mortar, and mixing well. The resulting mixture, *Iroom Larang lata*, is then stored in an earthen vessel and consumed for fifteen days during the cold, promising relief and comfort.

Iroom Koda Gato: A dish made from Kodo and dried Mahua flowers is called *Iroom Koda Gato*. It is used to cure anaemia, blood purification, sleeplessness, and skin diseases. In addition to these health benefits, *Iroom Koda Gato* is a rich source of nutrients, making it a nutritious addition to the diet.

The process of making *Iroom Koda Gato* involves several steps. First, the Mahua flowers are cleaned in lukewarm water and then roasted in an earthen pot on a low flame. Once roasted, they are ground finely. The Kodo rice is then washed with water. The roasted Mahua is cooked well by adding water to an earthen pot. When cooked well, the washed Kodo rice is added and cooked again. After cooking, the food item locally known as *Iroom Koda Gato* is a seasonal delight, best enjoyed during the winter and rainy season, *when it's most beneficial*.

Mahua Laddoos: Mahua laddoos, an indigenous remedy for physical weakness, are a part of tribal cultural heritage. The recipe passed down through generations, involves a blend of Mahua seeds (half kg), sesame seeds (half kg), black pepper (fifty grams), and jaggery (one kg). The Mahua seed's upper layer is peeled with a pestle and ground, and the sesame seeds and black pepper are roasted until light red. These are then mixed with jaggery, formed into small laddus, and stored in a vessel. It's a practice that has stood the test of time, and it's recommended that one laddu be consumed with milk daily after brushing the teeth in the morning, continuing the tradition of health and wellness. "Proteins, fats, carbohydrates, minerals, calcium, phosphorus, iron, carotene, ascorbic acid, and tannins are found in ripe seeds of Mahua" (Bisht et al., 2018, pp. 3415).

CONCLUSION

Due to living in forests since ancient times, flora and fauna have become vital in tribal culture. Tribal communities not only for livelihood but also compensate for the daily needs of life with trees and plants. Among the trees, Mahua has a central place in the tribal culture of Central India. The importance of Mahua in their culture has remained since ancient times. Due to the non-availability of health services in tribal areas, they highly depend on indigenous treatment methods. The indigenous healing method practised in the tribal community reflects the people's knowledge and experience. So, indigenous medicinal understanding is vital to their lives. The use of Mahua as an Indigenous medicinal practice is commonplace in their daily life. Mahua tree has many possibilities and capabilities to fulfil various purposes of health.

Gonds and Halbas living in the Bastar division

of Chattisgarh use different parts of Mahua, like flowers, bark and roots, to treat several diseases. The community's people always prefer to use Mahua as indigenous medicine as needed, as no side effects are seen in the community from medicines made from Mahua. The depth of their cultural beliefs is evident in the community's trust in their indigenous medicine. Mahua is used to treat diseases because of its medicinal and therapeutic value in several parts, like fruits, flowers, seeds, leaves, and cake. If suddenly a person feels ill, gets hurt, suffers from diseases, has a snake bite, and has stomach pain, then Mahua flowers, fruits, roots, bark, leaves, and drinks are fed as medicine. Medicines made from Mahua in the Gond and Halba communities are readily accepted and are believed to be gifted by their ancestors, gods, and goddesses. How valuable the Mahua tree is from a medicinal point of view; it is hidden from the eyes of outsiders. Due to its effectiveness, easy availability, low expenses, and comparatively non-toxic effects, Mahua as an indigenous medicinal product is gaining importance in the present times. Generally, outsiders think Mahua is used only for making liquor, but it is not; now, the time has come to change people's thinking to attain sustainable development goals in 2030.

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