### Ethnomedicinal Plants Used by Santhal Community of India

Sujata Pradhan <sup>1\*</sup>, J. N. Mohanty <sup>1\*</sup>, and S. Kumar <sup>2</sup>

<sup>1</sup> Department of Botany, School of Applied Sciences, Centurion University of Technology and Management, Bhubaneswar 752050, India

<sup>2</sup> Biodiversity and Conservation Lab., Ambika Prasad Research Foundation, Cuttack 753015, India

\*(e-mail: sujatapradhan.lect@gmail.com; jatindranath.mohanty@cutm.ac.in)

(Received: 30 December 2024; Accepted: 27 May 2025)

### ABSTRACT

A lot of health problems are observed worldwide; among them, antimicrobial resistance (AMR) is more serious. Urgent formulations of antimicrobial agents from natural sources and Indigenous Traditional Knowledge (ITK) are needed. The ITK belongs to different tribal communities for their day-to-day traditional practices. Those communities are storehouses of traditional therapeutic values that need to be explored. Santhal, a tribal community in India and more developed has sound knowledge of forest foods, forest products, sustainable agriculture, and medicinal plants. They use the local plants as food, nutraceuticals, medicinal agents, and as a source of livelihood, which should be documented for the formulation of new antimicrobial agents to mitigate the global health problems. Therefore, in the present study, the Santhal community was selected and enumerated 120 medicinal plants along with their uses and local names used by them. The active constituents of 31 medicinal plants and their pharmacological activities are also documented. 34 nutraceuticals and 10 economically important plants were enumerated through a field survey and presented. Since less documentation is available on plants used by the Santhal community, the present study focuses on their medicinal uses, pharmacological activities, and their nutraceutical potential to provide sources of future medicinal foods and antimicrobial agents to cope with the global health problems.

Key words: antimicrobial resistance, medicinal agents, tribal communities

### **INTRODUCTION**

Antimicrobial resistance (AMR) has become an area of concern and a threat to human health worldwide (Prestinaci et al., 2015). AMR occurs when pathogens resist or act against antibiotics, making the administered medications less effective. antibiotics decreases Resistance to the susceptibility of the medicines used in the therapy, operations, and prevention of infectious diseases (Adedeji, 2016; Cornaglia et al., 2004). However, in the current situation, antibiotics are highly misused. The lack of education and knowledge of medications in society is leading to deaths due to the irresponsible use (Bhat et al., 2023). The administered antibiotics act against all the good and bad bacteria in the human body and kill them; however, some bacteria survive and become resistant to these antibiotics (Muteeb et al., 2023). The mutant bacteria then multiply rapidly and cause more dangerous and incurable diseases. Human negligence and a deficit of knowledge are leading to the incompletion of the prescription for the disease, which kills half the pathogens and leaves the other half to mutate and develop resistance against the antibiotics (Lobanovska and Pilla, 2017). Then, a time will come when no antibiotics available in the markets will work on the mutant pathogens (Abdallah, 2023). With developed recombinant DNA technology, better healthcare facilities, and the availability of low-cost medications, more

multidrug-resistant pathogens are developing (Micoli et al., 2021). Complications or infections caused by multidrug-resistant bacterial strains have no cure and eventually cause death of the patients, as no antibiotics can be administered to the patients that will work on them. Therefore, most of the mortality cases recorded in India are due to no proper working of antibiotics in the aftercare of any operation or other infections rather than any health disorder (Kumar et al., 2013; Salam et al., 2023).

Presently, the global community is slowly reverting to the traditional practices and using herbal medicines with fewer side effects (Shrivastava et al., 2015; Wanjohi et al., 2020). Observing the rich traditional avurvedic systems of Indian culture, European scholars then started documenting the ethnobotanical ethnomedicinal and practices followed by the tribal people of India from the villagers, medicine experts, hakims, vaidyas, and ojhas (Thomas et al., 2020). India has 75 Particularly Vulnerable Tribal Groups (PVTGs) and 705 Scheduled Tribes (STs) spread over 17 states and 1 union territory who have unique cultural and life practices, and rich traditional knowledge (Narain, 2022). The states of Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Maharashtra, Gujarat, Rajasthan, Andhra Pradesh, West Bengal, and Karnataka are some of the tribal states of India (Pandey et al., 2022). The lack of proper healthcare facilities and easy availability of medicinal plants in the forests near them, traditional methods of treatment, and healing are the first treatment options among the tribal population

(Ganesh et al., 2021). Santhal is one of the most populous tribal communities in India. They used to live as nomads but have now settled down in the Chhotanagpur plateau (Dutta and Sinha, 2022). At the end of the 18th century, they migrated to the Santhal Paraganas of Bihar and they then came to Odisha. Now, they are found in Odisha, Jharkhand, West Bengal, Bihar, and Assam (Soren and Jamir, 2020). They usually stay close to forest areas and mostly depend on forest plants for primary healthcare systems. The traditional therapeutic knowledge of Santhal is very old and they use plants for treating various health problems, including microbial infections. Therefore, an attempt has been made to gather the ethnobotanical plants used by them from the literature and field survey. Several studies have documented the medicinal plants used by different tribes in India, like Ignacimuthu et al. (2006) reported the use of 60 ethnomedicinal plants by tribals of Madurai, Tamil Nadu. Similarly, Duraipandiyan et al. (2006) found that 18 plants used by the Paliyar tribe of Tamil Nadu exhibited antimicrobial activities. Jagtap et al. (2006) documented the use of 66 ethnomedicinal plants by the Korku tribe of Amravati district of Maharashtra. More recent studies have also contributed to the growing body of knowledge on medicinal plants used by indigenous communities. Thomas et al. (2014) reported the use of 34 plants by the Kuruma tribes of Kerala for various purposes. Laldingliani et al. (2022) recorded 93 ethno-medicinal plants used by the Mizo tribe of Mizoram. Mir et al. (2022) documented 109 ethnomedicinal plants used by ethnic groups in Jammu & Kashmir. Ralte et al. (2024) reported the use of 124 ethnomedicinal plants by indigenous communities of Mizoram. The present study on plants used by the Santhal community for

the treatment of various health problems will be useful to provide a source of future antimicrobial agents and other life stuffs to fight against AMR and other health problems.

### METHODOLOGY

A thorough review was conducted through a comprehensive survey of existing literature on the ethnomedicinal plants used by the Santhal community, focusing on their traditional and pharmacological properties, along with reported bioactive compounds present in them. A range of databases including PubMed, Scopus, Web of Science, NCBI, etc., were searched using keywords such as "Santhal", "traditional "ethnomedicinal plants", practices", "pharmacological potential", "medicinal uses", "bioactive compounds", and "bioactivity". Relevant books and articles were reviewed to gather information on the ethnomedicinal plants used by the Santhal community (Goel et al., 1984; Iyer, 1992; Singh, 2017; Das, 2018; Mandal et al., 2020). Field surveys were also carried out during 2023-2024 in Mayurbhanj district, Odisha, India to document the nutraceutical plants consumed by the Santhal community along with the economic values. Information was collected through interactions with Santhal people. The selected age group of informants was 35-60 years. 10 villages of Mayurbhanj were visited and 28 informants were interviewed. Prior information consent was taken orally after explanation of the objectives of the study. The plant species were identified by authors followed by flora books (Kumar et al., 2022). Photographs are taken and given in the manuscript.

### MEDICINAL PLANTS USED BY THE SANTHAL COMMUNITY

Santhals are very close to nature and usually depend on nearby forest areas. They collect the leaves of Saal and Bhalia for making plates. They collect the leaves of *Andrographis paniculata* for making powder and use it against cough, cold, and malaria. They collect the root of *Abroma augustum*, *Aristolochia indica*, *Curculigo orchioides*, *Curcuma longa*, *Desmodium gangeticum*, etc. for different health problems (Figure 1. Details are listed in Table 1.

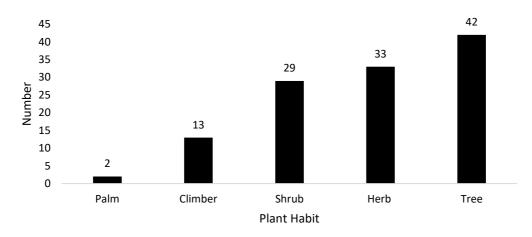


Fig. 1. Habit of the enumerated plants.

Table 1. Ethnomedicinal	l plan	ts used	by t	the Sant	hal co	ommunity.
-------------------------	--------	---------	------	----------	--------	-----------

Plant Name (Family)	Local Name	Uses	References
Abroma augustum (L.) L.f. (Malvaceae)	Ulatkambal	Root extract is used to treat the menstrual disorder.	Mandal et al. (2020)
Achyranthes aspera L. (Amaranthaceae)	Cipcirap, kakra lata, kara lattha	Leaf paste is used to treat skin disease and fresh root decoction is used for abortion. Roots are used to treat cough, cold, asthma, and bronchitis. Plants are used for headaches.	Mandal et al. (2020) & Goel et al (1984)
<i>Aegle marmelos</i> (L.) Corrêa (Rutaceae) (Figure 2e)	Singedaro	Fruit juice is taken orally to treat stomach problems and leaf paste is used to treat fever.	Hembrom and Kumar, (2017), Mandal et al. (2020) & Singh, (2017)
Alangium salviifolium (L.f.) Wangerin (Cornaceae) (Figure 2a)	Kumbri, dhela	The stem bark is used for abortion and the treatment of menstrual disorders. Fruit pulp is effective in controlling mucus and relieves constipation.	Goel et al. (1984) & Das, (2018)
Allium cepa L. (Amaryllidaceae)	Pyaz	Paste of the bulb is used in the treatment of joint pain.	Mandal et al. (2020)
<i>Allium sativum</i> L. (Amaryllidaceae)	Rasun	Juice made from the bulb is used in the treatment of ear problems.	Mandal et al. (2020)
Aloe vera (L.) Burm.f. (Asphodelaceae)	Ghritakumari	Paste prepared from the leaf used for skin care.	Mandal et al. (2020)
Alstonia scholaris (L.) R.Br. (Apocynaceae)	Chatni, chatta	Latex is massaged on the fractured bone. The stem bark is used to treat malaria and fevers.	Mandal et al. (2020) & Goel et al (1984)
Amaranthus viridis L. (Amaranthaceae)	Gai gandhaori	The whole plant is crushed and applied to the snake bite area.	Mandal et al. (2020)
Ananas comosus (L.) Merr. (Bromeliaceae)	Anaros	The whitish thick basal portion of the leaf is made into a paste and consumed for the treatment of fever.	Mandal et al. (2020)
Andrographis echioides (L.) Nees (Acanthaceae)	Kusumpuru	Plants are used as an antidote against snake bites and scorpion stings.	Goel et al. (1984)
Andrographis paniculata (Burm.f.) Wall. ex Nees (Acanthaceae) (Figure 2f)	Kalmegh	Leaf extract is taken orally for 3 days to cure stomach problems. Leaves are used as an antiseptic for sores and blood purifiers.	Mandal et al. (2020) & Goel et al (1984)
Annona reticulata L. (Annonaceae)	Gom	Fruits are used to treat diarrhoea and dysentery.	Das, (2018)
Annona squamosa L. (Annonaceae)	Mandargom	Fruit is consumed for digestion. Seeds are used for abortion and the treatment of menstrual disorders. The thalamus is used for antifertility. Bark powder is used for wound healing.	Hembrom and Kumar, (2017), Mandal et al. (2020) & Goel et al (1984)
Areca catechu L. (Arecaceae)	Berel gua	Nuts are chewed to treat dysentery.	Mandal et al. (2020)
Aristolochia indica L. (Aristolochiaceae)	Godh	Roots are used as an antidote against snake bites and scorpion stings.	Goel et al. (1984)
Artemisia vulgaris L. (Asteraceae)	Tite pati	It is used to treat nose bleeding, asthma, and nervous problems.	Mandal et al. (2020)
Artocarpus heterophyllus Lam. (Moraceae)	Kanthal	Latex is used to treat skin problems.	Mandal et al. (2020)
Artocarpus lacucha BuchHam. (Moraceae)	Barhal	Fruits are good for the liver.	Das, (2018)
Asparagus racemosus Willd. (Asparagaceae)	Shatamul, surundu	Dried root extract is used to treat dysentery and urine disorders. Plants are used for	Mandal et al. (2020), Goel et al. (1984) & Singh, (2017)

(Meliaceae) (Figure 2j)Neemto treat itching problems. Leaves can be used for tumours.Mandal et al. (2020)Baliospermum montanum (Willd.) Müll.Arg. (Euphorbiaceae)DantiSeeds are used for treating gastric disorders, gout, and rheumatism.Goel et al. (1984)Basella alba L. (Basellaceae)Purai nariLeaf decoction is used in the treatment of diarrhoea.Mandal et al. (2020)Bauhinia acuminata L. (Fabaceae)SeearaStem bark is used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Bombax ceiba L. (Malvaceae)ShimulJuice made from the bark is used for excessive menstrual discharge.Mandal et al. (2020) & Goel et alBorassus flabellifer L. (Arecaceae)Taal, taliJuice of young leaves is mixed with water and given in cases of dysentery. Petioles are used to repilepsy and hysteria.Mandal et al. (2020) & Goel et al (1984)Bridelia squamosa (Lam.) Oken (Crassulaceae)HenhaharStem bark is used to treat tuberculosis and as veterinary medicine.Goel et al. (1984)Butea monosperma (Lam.) Kuntze (Fabaceae)Murut, marupSeeds are ground into powder and none teaspoon of juice is consumed onally thrice daily for a week in diuretic, muscle relaxant, tumor, abdominal pain, etc.Mandal et al. (2020) & Goel et al (1984)Cajanus cajan (L.) Huth (Fabaceae)RaherLeaves extract is used in jaundice.Mandal et al. (2020)Cajanus cajan (L.) Huth (Fabaceae)RaherLeaves extract is used in jaundice.Mandal et al. (2020)				
Applosis scarabaeoide (L.) Penth. (Fabaceae)      Plants are used for treating gastric disorders. Leaves and tesms are used for treating gastric disorders. (Melicaceae) (Figure 2)      Coel et al. (1984)        Audiractive indica Ajuss. (Melicaceae) (Figure 2)      Neem      A regular bath is taken in warm meem water to treat itching problems. Leaves can be used      Hemberon and Kumar (2018) & Mandal et al. (2020)        Buliopermute numbure (Euglorberbancee)      Danti (Euglorberbancee)      Seeds are used for treating gastric disorders, cancel and the intervent of disarrhoca.      Goel et al. (1984)        Bossess (JackElfort L. (Euglorberbancee)      Seeds are used for treating startic disorders, cancel and the intervent of disarrhoca.      Goel et al. (2020)        Bornbar code I. (Mavacese)      Shimul (Lice ande from the bark is used for divers and sortions sting).      Mandal et al. (2020)        Bornbar code I. (Mavacese)      Taal, tali (Marcaceae)      Stem bark is used for treating meet with water and divers and stread with water and disorders.        Brown a				
Autorication      Neem      to treat fiching problems. Leaves can be used for tumours.      Hermitian (2010) a for tumours.        Bollogpermum monitonum (Will) AmilLarg.      Danti Bashance and L. Resellecase)      Seed are used for treating gatric disorders, gout, and rheumatism.      Goel et al. (1984)        Bubling accurring the (Full Marchael et al. (2020)      Barnia cristical. (Marcaeles)      Mandal et al. (2020)        Bashan cristical. (Marcaeles)      Purai nari      Leaf descritica are used for the treatment of disorboas.      Goel et al. (1984)        (Fubboccase)      Barnia cristical. (Marcaeles)      Siminul seven cases or dyscutes, Publica are used for opplengy and hysteria.      Goel et al. (2020) & Goel et a (1994)        Bardenia science      Taal, luil given in cases of dyscutes, Publica are used for the lay hysteria.      Mandal et al. (2020) & Goel et a (1994)        Britem monosperme (Lam.) Rivitem and science      Pathoricum      Mandal et al. (2020) & Goel et a (1994)        Rivitem and science      Association power and lay on a (1994)      Mandal et al. (2020) & Goel et a (1994)        Rivitem and science      Association power and lay on a (1994)      Mandal et al. (2020)        Colorons is ging for the science      Mandal et al. (2020)      Mandal et al. (2020)        Colorons is ging for the science      Mandal et al. (2020)      Mandal et al. (2020)		Birghore	Plants are used for treating gastric disorders. Leaves and stems are used for treating venereal diseases.	Goel et al. (1984)
(Wild) Mull Arg.      Danti      Sector are used for the stilling gastric disorders, Goel et al. (1984)        Basella oliba L. (Basellaceae)      Purai nari      Laf decortion is used in the treatment of duarrheec.      Mandal et al. (2020)        Buthrina acciminato L. (Basellaceae)      Seeara      Stem bark is used as an antidote against.      Goel et al. (1984)        Bornbark ceiba L. (Malvaceae)      Shimul      Juice made from the bark is used for Mandal et al. (2020)      Mandal et al. (2020)        Bornsus finbelifier L. (Alvaceae)      Taal, tali      Juice origons of giostics - yellowis are used (1984)        Brodin syumors (Lam.)      Factoria (Laborcrais is and as Goel et al. (1984)      Goel et al. (1984)        Brodin syumors (Lam.)      Pathorkuchi      Stem bark used to treat tubercrais and as Goel et al. (2020)        Brodin syumors (Lam.)      Pathorkuchi      Tree disport for a week in diuretic, muscle      Mandal et al. (2020)        Brote monosperme (Lam.)      Pathorkuchi      Tree as ground into powder is mixed with half a cm.      (1984)        Kuntze (Fabaceae) (Figure 2d)      Murut, marup      Roots are used to treat tubercrais.      Mandal et al. (2020)        Cajome cojor (L.) Huth      Rahe      Rahe      Leaf facection is used in bowel complaints.      Mandal et al. (2020)        Cajome coj	(Meliaceae) (Figure 2j)	Neem	to treat itching problems. Leaves can be used	Hembrom and Kumar, (2018) & Mandal et al. (2020)
Dasket      Mandal et al. (2020)        Baukinia cominato L. (Palaccae)      Seerar      Stem bark is used as a matldote against srake bites and scorpion stings.      Goel et al. (1984)        Bornbac colib L. (Maccae)      Simul      Stem bark is used as a matldote against (Arcacae)      Mandal et al. (2020)        Borasus flabelijer L. (Arcacae)      Taal. tali      Taal. tali      Juice and public with water and for epilepsy and hysteria.      Mandal et al. (2020)        Bridelija squamoso (Lan.). Gehrm. (Phyllamhaccae)      Henhahar      Stem bark is used to treat tuberculosis and as Goel et al. (1984)        Bridelija squamoso (Lan.). Oken (Crassulaceae)      Pathorkuchi      Arcel-hotiron rod is dipped into the led fuice and 2 tesspono for powder is nixed with half a cup.      Mandal et al. (2020)        Buteo monosperma (Lam.). Kuntze (Fabaccae) (Figure 2d)      Murut, marup      Nandal et al. (2020)      Mandal et al. (2020)        Cajonus guarte (L)      Raher      Leaves extract is used in instaurced bones and empty stonach to treat intestinal worms.      (1984)        Cajonus guarte (L)      Alana      Leaf paste is used in howel complaints.      Mandal et al. (2020)        Cadronos guarte (L)      Alana      Leaf paste is used in howel complaints.      Mandal et al. (2020)        Cadronos guarte (L)      Alana      Leaf paste is used for n	(Willd.) Müll.Arg.	Danti		Goel et al. (1984)
(Fabaceae)      Secara      snake bites and scorpion stings      Use of al. (1984)        Bombar ceiba L. (Malvaceae)      Shinul      Juice of young leaves is mick with water and (1984)      Mandal et al. (2020)      Color et al. (1984)        Boresser fibelilfer L. (Acceae)      Taal, tali      Given in cases of dysentery. Petioles are used for the hysteria.      (1984)      (1984)        Briddia squamosa (Lam.) (chrm. (Phyllamthaceae)      Henhahar      Stem bark is used to treat tuberculosis and as vetra in directic, muscle      Goel et al. (2020) & Goel et al. (2020)        Briddia squamosa (Lam.) (Stem Crassulaceae)      Pathorkuchi      and 2 tespoons of juice is consumed orall as cup of water and take orally once a day on an enpty stomach to rest tuberculosis.      Goel et al. (2020) & Goel et al. (2020)        Butea monosperma (Lam.) (Fabaceae)      Murut, marup      Secds are ground into powder in stomador.      Mandal et al. (2020)        Cajoniz cajon (L.) Huth (Fabaceae)      Raher      Leaf deccion is given orally with sugar as a (Calcorbing gagnateae)      Mandal et al. (2020)        Caldrorbing gagnateae      Gaaja      Leaf paste is used in bowel complaints.      Mandal et al. (2020)        Caracia pappya L. (Caraceae)      Gaaja      Leaf paste is used in bowel complaints.      Mandal et al. (2020)        Caracia papya L. (Caraceae)      Barnoby (Fabaceae)	Basella alba L. (Basellaceae)	Purai nari		Mandal et al. (2020)
Bombac coibe L. (Malvaceae)      Shimul      Juice made from the bark is used for excessive mentrual discharge.      Mandal et al. (2020)        Borassas flabelifer L. (Arcaceae)      Taal, tail      Taal, tail      Juice of young leaves is mixed with water and given in cases of dysentery. Petioles are used for epilepsy and hysteria.      Mandal et al. (2020)      & Coel et al. (1984)        Brodelis agumes (Lam.) (Chrome, (Pkyllanthaceae)      Henhahar      Stem bark is used to reat tuberculoiss and vesterinary medicine.      Gel et al. (1984)        Brodelis agumes (Lam.) (Noken (Crassulaceae)      Pathorkuchi      Ared-battis used to reat tuberculoiss.      Mandal et al. (2020)        Buttee monosperme (Lam.) (Rabaceae)      Murut, marup      Seeda are ground into powder and one empty stomach to trast intestinal worms.      Mandal et al. (2020)      Mandal et al. (2020)        Calorbrajs giganteo (L.)      Murut, marup      Heated leaves with a layer of oil are used for readiate and take or ally on as      Mandal et al. (2020)        Calorbrajs giganteo (L.)      Heated leaves with a layer of oil are used for readiate all (2020)      Mandal et al. (2020)        Calorbrajs stivu L.      Ganja      Leaf aste is used in adort on lay group all (Cartaceae)      Mandal et al. (2020)        Calorbrajs giganteo (L.)      Mandal et al. (2020)      Mandal et al. (2020)        Calorbrajs stivu L.      <		Seeara		Goel et al. (1984)
Bordsass Juber L. (Arecaccee)      Taal, tali      given in cases of dysentery. Petioles are used Minite et al. (2020) & uote et al. (1984)        Bridelia squamosa (Lam.)      Ehrm (Phyllanthaccee)      Ken bark is used to tract tuberculosis and as certain provide et al. (1984)        Bridelia squamosa (Lam.)      Henhahar      Stem bark is used to tract tuberculosis and a tesposons of live is consumed or ally thrice daily for a week in diuretic, muscle relaxant. tumor, abdominal pain, etc.      Goel et al. (1984)        Butee monosperma (Lam.)      Murut, marup      Seeds are ground into powder and one tesspoon of powder is insked with half a cup and tespoons of powder is insked with half a cup of water and taken orally one a day on an empty somach to treat intestinal worms.      Mandal et al. (2020)      Koel et al. (1984)        Calorotrogi gignited (L)      Heater leaves with a layer of oil are used for relaxant.      Mandal et al. (2020)      Koel et al. (1984)        Camabis sativa L. (Fabaccae)      Kahaa      Leaf decoction is given orally with sugar as a nerve stimulati.      Mandal et al. (2020)        Caramabis sativa L. (Camabaccae)      Ganja      Leaf decoction is given orally with sugar as a nerve stimulati.      Mandal et al. (2020)        Caramabis sativa L. (Caramabaccae)      Ganja      Leaf decoction is used in browel complaints.      Mandal et al. (2020)        Caramabis sativa L. (Caramabaccae)      Baromasia      Seeds are used in inporenestin	Bombax ceiba L. (Malvaceae)	Shimul	,	Mandal et al. (2020)
Bridelia squamosa [Lam.] Gehrm. [Phyllanthaceae]      Henhahar      Stem bark is used to treat tuberculosis and as weterinary medicine.      Goel et al. (1984)        Bryophyllum pinnatum (Lam.) Oken (Crassulaceae)      Pathorkuchi      Ared-hot iron rod is dipped into the leaf juice and 2 tesaponos of piowder is muscle relaxant, tumer, abdominal pain, etc.      Mandal et al. (2020)      Mandal et al. (2020)        Buteo monosperma (Lam.) Kuntze (Fabaceae)      Murut, marup      Seeds are ground into powder and one tesapono of powder is mixed with half a cup of water and taken orally once a day on an empty stomach to treat tuberculosis.      Mandal et al. (2020)      & Mandal et al. (2020)        Cajanus cajan (L)      Huth      Raher      Leaves extract is used in jaundice. (Fabaceae)      Mandal et al. (2020)      Mandal et al. (2020)        Calotropis gigantea (L)      Heated leaves with a layer of oil are used for heautreatment in fractured bones an enver stimulati.      Mandal et al. (2020)        Cannabaceae      Ganja      Leard fecotion is given orally with sugar as a nerve stimulati.      Mandal et al. (2020)        Carrica papaya L.      Ganja      Leaf paste is used in bowel complaints.      Mandal et al. (2020)        Carrica papaya L.      Papaya      Seeds are used in impotency and other sexual diabetes.      Goel et al. (1984)        Carrica papaya L.      Gane tara di taken orally or tare disentry.		Taal, tali	given in cases of dysentery. Petioles are used	Mandal et al. (2020) & Goel et al
Bryophylum pinnatum (Lam.) Oken (Crassulaceae)    Pathorkuchi    and 2 teaspoons of juice is consumed orally tred eally for a week in duretic, muscle relaxant, tumor, abdominal pain, etc.    Mandal et al. (2020)      Butea monosperma (Lam.) Kuntze (Fabaceae) (Figure 2d)    Murut, marup    Seeds are ground into powder and one teaspoon of powder is mixed with half a cup of water and taken orally once a day on an (Figure 2k)    Mandal et al. (2020)    Mandal et al. (2020)      Cafotropis gionnta (L.) W.T.Atton (Apocynaceae)    Raher    Leaves extract is used in jaundice.    Mandal et al. (2020)      Cannobis sativa 1. (Cannabaceae)    Akana    Heattreatment in fractured bones and rheumatism.    Mandal et al. (2020)      Cannobis sativa 1. (Carnaceae)    Ganja    Leaf paste is used in bowel complaints.    Mandal et al. (2020)      Carica papya L (Caricaceae)    Ganja    Leaf paste is used in impotency and other sexual disorders.    Ge et al. (1984)      Senna hirsuta (L.) H.S.Itwin & Barneby (Fabaceae)    Kadadiri    Seeds are used in impotency and other sexual disorders.    Ge et al. (1984)      Caricaceaey    Baromasia    Leaf decoction is used in dysentery.    Mandal et al. (2020)      Caricaceae    Baroma hirsuta (L.) H.S.Itwin & Barneby (Fabaceae)    Seeds are used in impotency and other sexual disorders.    Ge et al. (1984)      Caricaceae    Baromasia    Leaf decoction		Henhahar	Stem bark is used to treat tuberculosis and as	Goel et al. (1984)
Butea monosperma (Lam.) Kuntze (Fabaceae) (Figure 2d)      Murut, marup      teaspoon of powder is mixed with haf a cup of water and taken orally none ad yo on an empty stomach to treat intestinal worms. Roots are used to treat tuberculosis.      Mandal et al. (2020) & Goel et al (1984)        Cajanus cajan (L.) Huth (Fabaceae)      Raher      Leaves extract is used in jaundice.      Mandal et al. (2020)        Calotropis gigantea (L.) W.T.Aiton (Apocynaceae)      Akana      Heated leaves with a layer of oil are used for heat treatment in fractured bones and rheumatism.      Mandal et al. (2020)        Cannabis sativa L.      Cha      Leaf decortion is given orally with sugar as a nerve stimulant.      Mandal et al. (2020)        Carinabis sativa L.      Ganja      Leaf paste is used in bowel complaints.      Mandal et al. (2020)        Carinabis sativa L.      Ganja      Leaf paste is used in bowel complaints.      Mandal et al. (2020)        Carina papupa L.      Papaya      Latex is used as a cleansing agent during menstruation and abortion. Leaf paste is used in bone fractures.      Mandal et al. (2020)        Cathoranthus roseus (L.) G.Don (Amaranthaceae)      Kadadiri      Seeds are used in impotency and other sexual diabetes.      Goel et al. (1984)        Clerodendrum divaricatum lack (Lamiaceae)      Jambir      Fruit luice is used on cuts, wounds, and burns. Leaves are used on cuts, wounds, and burns. Leaves are used on cuts, wounds, and burns.		Pathorkuchi	and 2 teaspoons of juice is consumed orally thrice daily for a week in diuretic, muscle relaxant, tumor, abdominal pain, etc.	
(Pabaceae)      Raher      Leaves extracts used in jaunoice.      Mandal et al. (2020)        Calotropis gigantea (L)      Heated leaves with a layer of oil are used for heat treatment in fractured bones and rheumatism.      Hembrom and Kumar, (2018) & Mandal et al. (2020)        Canello sinensis (L) Kuntze (Cannabaceae)      Cha      Leaf decotion is given orally with sugar as a nerve stimulant.      Mandal et al. (2020)        Carneto sinensis (L) Kuntze (Carica papaya L. (Carica papaya L. (Carica caep)      Canabaceae)      Mandal et al. (2020)        Carica papaya L. (Carica caep)      Papaya      Latex is used as a cleansing agent during mentruation and abortion. Leaf paste is used in bone fractures.      Mandal et al. (2020)        Seena hirsuta (L) H.S.Irwin & Barneby (Pabaceae)      Kadadiri      Seeds are used in impotency and other excual disorders.      Goel et al. (1984)        Cathorunta creation of (Apocynaceae)      Kukruchubaha      Flower extract is used in dysentery. (Lamacathaceae)      Mandal et al. (2020)        Citrus medica L. (Rutaceae)      Jambir      Fruit juice is used on cuts, wounds, and burns. (Lawaceae)      Goel et al. (1984)        Citrus medica L. (Rutaceae)      Jambir      Fruit juice is used on cuts, wounds, and burns. (Lawaceae)      Goel et al. (2020)        Citrus medica L. (Rutaceae)      Bharni      Leaves extract is used on cuts, wounds, and burns. Leaves are used on cuts		Murut, marup	teaspoon of powder is mixed with half a cup of water and taken orally once a day on an empty stomach to treat intestinal worms.	Mandal et al. (2020) & Goel et al (1984)
W.T.Aiton (Åpocynaceae) (Figure 2k)    Akana    heat treatment in fractured bones and rheumatism.    Intermetion and kuinaf, (2018) e Mandal et al. (2020)      Camellia sinensis (L.) Kuntze (Cannabaceae)    Cha    Leaf decoction is given orally with sugar as a nerve stimulant.    Mandal et al. (2020)      Carnelia sinensis (L.) Kuntze (Carica papaya L. (Carica papaya L. (Carica eae)    Ganja    Leaf paste is used in bowel complaints.    Mandal et al. (2020)      Carrica papaya L. (Caricaceae)    Papaya    Latex is used as a cleansing agent during menstruation and abortion. Leaf paste is used in bone fractures.    Mandal et al. (2020)      Seman hirsuta (L.) H.S.Irwin & Barneby (Fabaceae)    Seeds are used in impotency and other sexual disorders.    Goel et al. (1984)      Catharanthus roseus (L.) G.Don (Apocynaceae)    Baromasia    Leaf decoction is used in the treatment of diabetes.    Mandal et al. (2020)      Centellia soiatica (L.) Urb. (Amaranthaceae)    Rote ara taken orally to cure dysentery.    Mandal et al. (2020)      Certordendrum divaricatum Jack (Lamiaceae)    Bhetkona    Leaves are used on cuts, wounds, and burns.    Goel et al. (1984)      Clerodendrum viscosum Vent. (Lamiaceae)    Bharni    Plants are used on cuts, wounds, and burns.    Goel et al. (2020)      Coctina grandis (L.) Voigt (Cucurbitaceae) (Figure 2m)    Hopu    The leave extract is used to treat hypertension and diabetes.		Raher	Leaves extract is used in jaundice.	Mandal et al. (2020)
Camellia sinensis (L) Kuntze (Theaceae)      Cha      Leaf decoction is given orally with sugar as a nerve stimulant.      Mandal et al. (2020)        Cannabis sativa L. (Cannabaceae)      Ganja      Leaf paste is used in bowel complaints.      Mandal et al. (2020)        Carica papaya L. (Caricaceae)      Papaya      Latex is used as a cleansing agent during menstruation and abortion. Leaf paste is used in bone fractures.      Mandal et al. (2020)        Senna hirsuta (L) H.S.Irwin & Barneby (Fabaceae)      Kadadiri      Seeds are used in importency and other sexual disorders.      Goel et al. (1984)        Catharanthus roseus (L) G.Don (Apocynaceae)      Baromasia      Leaf decoction is used in the treatment of diabetes.      Mandal et al. (2020)        Celosic cristuta L. (Amaranthaceae)      Kukruchubaha      Flower extract is used in dysentery.      Mandal et al. (2020)        Citrus medica L. (Rutaceae)      Jambir      Fruit juice is used to treat intestinal worms.      Mandal et al. (2020)        Citrus medica L. (Rutaceae)      Jambir      Fruit juice is used to treat intestinal worms.      Goel et al. (1984)        Clerodendrum viscosum Vent. (Lamiaceae)      Bharni      Plants are used on cuts, wounds, and burns. Leaves are used for headaches.      Goel et al. (1984)        Coccinia grandis (L.) Voit      Kenduri      The leaves extract is used to treat (Cucurbitaceae) (Figure 2m)	W.T.Aiton (Apocynaceae)	Akana	heat treatment in fractured bones and	Hembrom and Kumar, (2018) & Mandal et al. (2020)
Clannabaceae)GanjaLeat paste is used in bowel complaints.Mandal et al. (2020)Carica papaya L. (Caricaceae)PapayaLatex is used as a cleansing agent during menstruation and abortion. Leaf paste is used in bone fractures.Mandal et al. (2020)Senna hirsuta (L.) H.S.Irwin & Barneby (Fabaceae)KadadiriSeeds are used in impotency and other sexual disorders.Goel et al. (1984)Catharanthus roseus (L.) G.Don (Apocynaceae)Barneby (Fabaceae)Barneby (Fabaceae)Mandal et al. (2020)Celosia cristata L. (Amaranthaceae)KukruchubahaFlower extract is used in the treatment of diabetes.Mandal et al. (2020)Centella asiatica (L.) Urb. (Amaranthaceae)Rote araA pinch of salt is added to the leaf extract and taken orally to cure dysentery.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used on cuts, wounds, and burns.Goel et al. (1984)Cierodendrum viscosum Vent. (Lamiaceae)BharniPlants are used on cuts, wounds, and burns.Goel et al. (1984)Ciccubitaceae) (Figure 2m) (Cucubitaceae) (Figure 2m)KenduriThe leaves are used for headaches.Goel et al. (1984)Coconicigrandis (L.) Voigt (Cucubitaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (2020)Colosai esculenta (L.) Schott (Curcuigo orchioides Gaertn. (Curcuigo orchioides Gaertn. (C		Cha		Mandal et al. (2020)
Current public L. (Caricaceae)Papayamenstruation and abortion. Leaf paste is used in bone fractures.Mandal et al. (2020)Senna hirsuta (L.) H.S.Irwin & Barneby (Fabaceae)KadadiriSeeds are used in impotency and other sexual disorders.Goel et al. (1984)Catharanthus roseus (L.) G.Don (Apocynaceae)BaromasiaLeaf decoction is used in the treatment of diabetes.Mandal et al. (2020)Celosia cristata L. (Amaranthaceae)KukruchubahaFlower extract is used in dysentery.Mandal et al. (2020)Centelia asiatica (L.) Urb. (Apiaceae) (Figure 21)Rote ara JambirA pinch of salt is added to the leaf extract and taken orally to cure dysentery.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to cuts, wounds, and burns. Leaves are used on cuts, wounds, and burns.Goel et al. (1984)Cicordendrum viscosum Vent. (Lamiaceae)BharniPlants are used on cuts, wounds, and burns. Leaves are used for headaches.Goel et al. (2020)Coccinia grandis (L.) Voigt (Bixaceae)HopuThe leaves extract is used to treat hypertension and diabetes.Mandal et al. (2020)Coclocasia esculenta (L.) Schott (Araceae)HopuThe stem bark is used for angain.Mandal et al. (2020)Curcurdigo orchioides Gaerth. (Cuncurbiaceae)TurumRoots are used as an antiodre against snake bites and scorpion stings.Goel et al. (1984)Coclocasia esculenta (L.) Schott (Lingiberaceae)ShasangRhizome paste is used to treat stoma as a constipation.Mandal et al. (2020)Curcural longa L. (Concoside Gaerth. <b< td=""><td></td><td>Ganja</td><td>Leaf paste is used in bowel complaints.</td><td>Mandal et al. (2020)</td></b<>		Ganja	Leaf paste is used in bowel complaints.	Mandal et al. (2020)
Barneby (Fabaceae)Kadadiridisorders.Goel et al. (1984)Catharanthus roseus (L.) G.Don (Apocynaceae)BaromasiaLeaf decoction is used in the treatment of diabetes.Mandal et al. (2020)Celosia cristata L. (Amaranthaceae)KukruchubahaFlower extract is used in the treatment of diabetes.Mandal et al. (2020)Centella asiatica (L.) Urb. (Apiaceae) (Figure 21)Rote ara JambirA pinch of salt is added to the leaf extract and taken orally to cure dysentery.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to treat intestinal worms.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to treat intestinal worms.Goel et al. (1984)Clerodendrum divaricatum Jack (Lamiaceae)BhetkonaLeaves are used on cuts, wounds, and burns. Leaves are used on cuts, wounds, and burns.Goel et al. (1984)Clerodendrum viscosum Vent. (Lamiaceae)BharniPlants are used on cuts, wounds, and burns. Leaves are used for headaches.Goel et al. (1984)Coccinia grandis (L.) Voigt (Cucurbitaceae) (Figure 2m)KenduriThe leaves extract is used to treat hypertension and diabetes.Mandal et al. (2020)Cochlospermum Gossyptium DC. (Bixaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (1984)Cocos nucifera L. (Arecaceae)NarkolLeaf and tuber curry is consumed with food to treat coll and used for ear pain.Mandal et al. (2020)Colocasia esculenta (L.) Schott (Araceae)TurumRoots are used to treat cuts and wounds.Mandal et al. (2020)	(Caricaceae)	Papaya	menstruation and abortion. Leaf paste is used in bone fractures.	
(Apocynaceae)Baromasiadiabetes.Mandal et al. (2020)Celosia cristata L. (Amaranthaceae)KukruchubahaFlower extract is used in dysentery.Mandal et al. (2020)Centella asiatica (L.) Urb. (Apiaceae) (Figure 21)Rote ara JambirA pinch of salt is added to the leaf extract and taken orally to cure dysentery.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to treat intestinal worms.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to treat intestinal worms.Mandal et al. (2020)Cierodendrum divaricatum Jack (Lamiaceae)BhetkonaLeaves are used on cuts, wounds, and burns. Leaves are used on cuts, wounds, and burns.Goel et al. (1984)Cierodendrum viscosum Vent. (Lamiaceae)BharniPlants are used on cuts, wounds, and burns. Leaves are used for headaches.Goel et al. (2020)Coccinia grandis (L.) Voigt (Bixaceae)KenduriThe leaves extract is used to treat hypertension and diabetes.Mandal et al. (2020)Cocos nucifera L. (Bixaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (1984)Colocasia esculenta (L.) Schott (Araceae)KachuLeaf and tuber curry is consumed with food to treat constipation.Mandal et al. (2020)Curcuma longa L. (Zingiberaceae)ShasangRhizome paste is used to treat stomach problems.Mandal et al. (2020)Curcuma longa L. (Convolvulaceae)ShasangRhizome paste is used to treat stomach problems.Mandal et al. (2020)Curcuma longa L. (Constate reflexa Decne.<		Kadadiri		Goel et al. (1984)
(Amaranthaceae)KukruchubahaFlower extract is used in dysentery.Mandal et al. (2020)Centella asiatica (L.) Urb. (Apiaceae) (Figure 2!)Rote araA pinch of salt is added to the leaf extract and taken orally to cure dysentery.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to treat intestinal worms.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to treat intestinal worms.Mandal et al. (2020)Citrus medica L. (Rutaceae)BhetkonaLeaves are used on cuts, wounds, and burns.Goel et al. (1984)Clerodendrum viscosum Vent. (Lamiaceae)BharniPlants are used on cuts, wounds, and burns.Goel et al. (2020)Coccinia grandis (L.) Voigt (Cucurbitaceae) (Figure 2m)KenduriThe leaves extract is used to treat hypertension and diabetes.Mandal et al. (2020)Coclospermum Gossypium DC. (Bixaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (1984)Colocasia esculenta (L.) Schott (Hypoxidaceae)KachuLeaf and tuber curry is consumed with food bites and scorpion stings.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Curcuma longa L. (Convolvulaceae)ShasangRhizome paste is used to treat tots and scorpion stings.Mandal et al. (2020)Curcuma longa L. (Convolvulaceae)ShasangLeaves are used for the at no treat tots are used to treat tots and scorpion stings.Mandal et al. (2020)Curcu	(Apocynaceae)	Baromasia		Mandal et al. (2020)
(Apiaceae) (Figure 21)Rote arataken orally to cure dysentery.Mandal et al. (2020)Citrus medica L. (Rutaceae)JambirFruit juice is used to treat intestinal worms.Mandal et al. (2020)Clerodendrum divaricatum Jack (Lamiaceae)BhetkonaLeaves are used on cuts, wounds, and burns. Leaves are used on cuts, wounds, and burns.Goel et al. (1984)Clerodendrum viscosum Vent. (Lamiaceae)BharniPlants are used on cuts, wounds, and burns. Leaves are used for headaches.Goel et al. (1984)Coccinia grandis (L.) Voigt (Cucurbitaceae) (Figure 2m)KenduriThe leaves extract is used to treat hypertension and diabetes.Mandal et al. (2020)Cochospermum Gossypium DC. (Bixaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (1984)Colocasia esculenta (L.) Schott (Araceae)NarkolThe copra of the dry fruit is crushed to extract oil and used for ear pain.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Cuscuta reflexa Decne. (Convolvulaceae)SornolotaJuice prepared from the stem is used to treat stomach problems.Mandal et al. (2020)Cuscuta reflexa Decne. (Convolvulaceae)Dhubi ghasLeaves are used for treating agastric disordersMandal et al. (2020)Cuscuta reflexa Decne. (Convolvulaceae)Dhubi ghasLeaves are used to treat on stop bleems.Mandal et al. (2020)Cuscuta reflexa Decne. (Convolvulaceae)Dhubi ghasLeaves are made into a paste by grinding the ww	(Amaranthaceae)	Kukruchubaha		
Clerodendrum divaricatum Jack (Lamiaceae)    Bhetkona    Leaves are used on cuts, wounds, and burns.    Goel et al. (1984)      Clerodendrum viscosum Vent. (Lamiaceae)    Bharni    Plants are used on cuts, wounds, and burns. Leaves are used for headaches.    Goel et al. (1984)      Coccinia grandis (L.) Voigt (Cucurbitaceae) (Figure 2m)    Kenduri    The leaves extract is used to treat hypertension and diabetes.    Mandal et al. (2020)      Coclospermum Gossypium DC. (Bixaceae)    Hopu    The stem bark is used for jaundice treatment.    Goel et al. (1984)      Cocos nucifera L.    (Arecaceae)    Narkol    The copra of the dry fruit is crushed to extract oil and used for ear pain.    Mandal et al. (2020)      Colocasia esculenta (L.) Schott (Hypoxidaceae)    Kachu    Leaf and tuber curry is consumed with food to treat constipation.    Mandal et al. (2020)      Curculigo orchioides Gaertn. (Hypoxidaceae)    Turum    Roots are used as an antidote against snake bites and scorpion stings.    Goel et al. (1984)      Cuscuta reflexa Decne. (Convolvulaceae)    Sornolota    Juice prepared from the stem is used to treat stomach problems.    Mandal et al. (2020)      Cynodon dactylon (L.) Pers. (Poaceae)    Dhubi ghas    Leaves are used for treating gastric disorders    Mandal et al. (2020)      Cyperus rotundus L.    Mutheghas    Buts are used for treating gastric disorders		Rote ara		Mandal et al. (2020)
(Lamiaceae)BhetkonaLeaves are used on cuts, wounds, and burns.Goel et al. (1984)Clerodendrum viscosum Vent. (Lamiaceae)BharniPlants are used on cuts, wounds, and burns. Leaves are used for headaches.Goel et al. (1984)Coccinia grandis (L.) Voigt (Cucurbitaceae) (Figure 2m)KenduriThe leaves extract is used to treat hypertension and diabetes.Mandal et al. (2020)Cochospermum Gossypium DC. (Bixaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (1984)Cocos nucifera L. (Arecaceae)NarkolThe copra of the dry fruit is crushed to extract oil and used for ear pain.Mandal et al. (2020)Colocasia esculenta (L.) Schott (Araceae)KachuLeaf and tuber curry is consumed with food to treat constipation.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Cuscuta reflexa Decne. (Convolvulaceae)ShasangRhizome paste is used to treat stomach problems.Mandal et al. (2020)Cynodon dactylon (L.) Pers. (Poaceae)Dhubi ghasLeaves are made into a paste by grinding them with teet hand used to stop bleeding.Mandal et al. (2020)Cyperus rotundus L.MutheghasBulbs are used for treating gastric disordersMandal et al. (2020)		Jambir	Fruit juice is used to treat intestinal worms.	Mandal et al. (2020)
(Lamiaceae)BharmiLeaves are used for headaches.Goel et al. (1984)Coccinia grandis (L.) Voigt (Cucurbitaceae) (Figure 2m)KenduriThe leaves extract is used to treat hypertension and diabetes.Mandal et al. (2020)Cochlospermum Gossypium DC. (Bixaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (1984)Cocos nucifera L. (Arecaceae)NarkolThe copra of the dry fruit is crushed to extract oil and used for ear pain.Mandal et al. (2020)Colocasia esculenta (L.) Schott (Araceae)KachuLeaf and tuber curry is consumed with food to treat constipation.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Curcuma longa L. (Zingiberaceae)ShasangRhizome paste is used to treat cuts and wounds.Mandal et al. (2020)Curscuta reflexa Decne. (Convolvulaceae)SornolotaJuice prepared from the stem is used to treat stomach problems.Mandal et al. (2020)Cynodon dactylon (L.) Pers. (Poaceae)Dhubi ghasLeaves are made into a paste by grinding them with teeth and used to stop bleeding.Mandal et al. (2020)Cyperus rotundus L.MutheephasBulbs are used for treating gastric disordersGoel et al. (1984)	(Lamiaceae)	Bhetkona	· ·	Goel et al. (1984)
(Cucurbitaceae) (Figure 2m)Kendurihypertension and diabetes.Mandal et al. (2020)Cochlospermum Gossypium DC. (Bixaceae)HopuThe stem bark is used for jaundice treatment.Goel et al. (1984)Cocos nucifera L. (Arecaceae)NarkolThe copra of the dry fruit is crushed to extract oil and used for ear pain.Mandal et al. (2020)Colocasia esculenta (L.) Schott (Araceae)KachuLeaf and tuber curry is consumed with food to treat constipation.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Curcuma longa L. (Zingiberaceae)ShasangRhizome paste is used to treat cuts and wounds.Mandal et al. (2020)Cuscuta reflexa Decne. (Convolvulaceae)SornolotaJuice prepared from the stem is used to treat stomach problems.Mandal et al. (2020)Cynodon dactylon (L.) Pers. (Poaceae)Dhubi ghasLeaves are made into a paste by grinding them with teeth and used to stop bleeding.Mandal et al. (2020)Cyperus rotundus L.MutheghasBulbs are used for treating gastric disordersGoel et al. (1984)	(Lamiaceae)	Bharni	Leaves are used for headaches.	Goel et al. (1984)
(Bixaceae)HopuHe stem bark is used for jaundice treatment.Goel et al. (1984)Cocos nucifera L. (Arecaceae)NarkolThe copra of the dry fruit is crushed to extract oil and used for ear pain.Mandal et al. (2020)Colocasia esculenta (L.) Schott (Araceae)KachuLeaf and tuber curry is consumed with food to treat constipation.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Curcuma longa L. (Zingiberaceae)ShasangRhizome paste is used to treat cuts and wounds.Mandal et al. (2020)Cuscuta reflexa Decne. (Convolvulaceae)SornolotaJuice prepared from the stem is used to treat stomach problems.Mandal et al. (2020)Cynodon dactylon (L.) Pers. (Poaceae)Dhubi ghasLeaves are made into a paste by grinding them with teeth and used to stop bleeding.Mandal et al. (2020)Cyperus rotundus L.MutheghasBulbs are used for treating gastric disordersGoel et al. (1984)	(Cucurbitaceae) (Figure 2m)	Kenduri		Mandal et al. (2020)
Colocasia esculenta (L.) Schott (Arecaee)KachuLeaf and tuber curry is consumed with food to treat constipation.Mandal et al. (2020)Colocasia esculenta (L.) Schott (Araceae)KachuLeaf and tuber curry is consumed with food to treat constipation.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Curcuma longa L. (Zingiberaceae)ShasangRhizome paste is used to treat cuts and wounds.Mandal et al. (2020)Cuscuta reflexa Decne. (Convolvulaceae)SornolotaJuice prepared from the stem is used to treat stomach problems.Mandal et al. (2020)Cynodon dactylon (L.) Pers. (Poaceae)Dhubi ghasLeaves are made into a paste by grinding them with teeth and used to stop bleeding.Mandal et al. (2020)Cyperus rotundus L.MutheghasBulbs are used for treating gastric disordersGoel et al. (1984)		Нори		Goel et al. (1984)
(Araceae)Kachuto treat constipation.Mandal et al. (2020)Curculigo orchioides Gaertn. (Hypoxidaceae)TurumRoots are used as an antidote against snake bites and scorpion stings.Goel et al. (1984)Curcuma longa L. (Zingiberaceae)ShasangRhizome paste is used to treat cuts and wounds.Mandal et al. (2020)Curcuma longa L. (Zingiberaceae)ShasangRhizome paste is used to treat cuts and wounds.Mandal et al. (2020)Cuscuta reflexa Decne. (Convolvulaceae)SornolotaJuice prepared from the stem is used to treat stomach problems.Mandal et al. (2020)Cynodon dactylon (L.) Pers. (Poaceae)Dhubi ghasLeaves are made into a paste by grinding them with teeth and used to stop bleeding.Mandal et al. (2020)Cyperus rotundus L.MutheghasBulbs are used for treating gastric disordersGoel et al. (1984)	, , ,	Narkol	extract oil and used for ear pain.	Mandal et al. (2020)
(Hypoxidaceae)    Turum    bites and scorpion stings.    Goel et al. (1984)      Curcuma longa L. (Zingiberaceae)    Shasang    Rhizome paste is used to treat cuts and wounds.    Mandal et al. (2020)      Cuscuta reflexa Decne. (Convolvulaceae)    Sornolota    Juice prepared from the stem is used to treat stomach problems.    Mandal et al. (2020)      Cynodon dactylon (L.) Pers. (Poaceae)    Dhubi ghas    Leaves are made into a paste by grinding them with teeth and used to stop bleeding.    Mandal et al. (2020)      Cyperus rotundus L.    Mutheghas    Bulbs are used for treating gastric disorders    Goel et al. (1984)	(Araceae)	Kachu	to treat constipation.	Mandal et al. (2020)
(Zingiberaceae)  Snasang  wounds.  Mandal et al. (2020)    Cuscuta reflexa Decne. (Convolvulaceae)  Sornolota  Juice prepared from the stem is used to treat stomach problems.  Mandal et al. (2020)    Cynodon dactylon (L.) Pers. (Poaceae)  Dhubi ghas  Leaves are made into a paste by grinding them with teeth and used to stop bleeding.  Mandal et al. (2020)    Cyperus rotundus L.  Mutheghas  Bulbs are used for treating gastric disorders  Goel et al. (1984)	(Hypoxidaceae)	Turum	bites and scorpion stings.	Goel et al. (1984)
(Convolvulaceae)  Sornolota  stomach problems.  Mandal et al. (2020)    Cynodon dactylon (L.) Pers. (Poaceae)  Dhubi ghas  Leaves are made into a paste by grinding them with teeth and used to stop bleeding.  Mandal et al. (2020)    Cyperus rotundus L.  Mutheghas  Bulbs are used for treating gastric disorders  Goel et al. (1984)	(Zingiberaceae)	Shasang	wounds.	Mandal et al. (2020)
(Poaceae)      Drubi gnas      them with teeth and used to stop bleeding.      Mandal et al. (2020)        Cyperus rotundus L.      Mutheghas      Bulbs are used for treating gastric disorders      Goel et al. (1984)	(Convolvulaceae)	Sornolota	stomach problems.	Mandal et al. (2020)
	(Poaceae)	Dhubi ghas		Mandal et al. (2020)
		Mutheghas	Bulbs are used for treating gastric disorders.	Goel et al. (1984)

Datura metel L. (Solanaceae)	Dhutra	Leaves are made into a paste, warmed, and applied to the blister or abscess. Root or leaves are used for chest pain.	Hembrom and Kumar, (2018) & Mandal et al. (2020)
Dendrophthoe falcata (L.f.) Ettingsh. (Loranthaceae) (Figure 2b)	Mandargam banda, banda, bandia	Leaves and stems are used for antifertility and skin diseases.	Goel et al. (1984) & Iyer, (1992)
Desmodium gangeticum (L.) DC. (Fabaceae)	Chapot, chopot	Roots are used as an antidote against snake bites and scorpion stings. Plants are used to treat ophthalmic infections.	Goel et al. (1984)
<i>Desmodium microphyllum</i> (Thunb.) DC. (Fabaceae)	Chattoomara	Roots are used for abortion and the treatment of menstrual disorders.	Goel et al. (1984)
Desmodium pulchellum (L.) Benth. (Fabaceae)	Jeetedari	Stem bark is used for headaches.	Goel et al. (1984)
Diospyros melanoxylon Roxb. (Figure 2n) (Ebenaceae)	Terel	Fruits cure dysentery. A paste of unripe fruits is applied over the fractured bones for healing. Leaves are used for a cough.	Hembrom and Kumar, (2017) & Das, (2018)
Diplocyclos palmatus (L.) C.Jeffrey (Cucurbitaceae)	Kahu botke, kahubhutki	Leaf decoction is used in the treatment of	Mandal et al. (2020) & Goel et al (1984)
Elaeodendron glaucum (Rottb.) Pers (Celastraceae)	Nimri	The stem bark is used for treating gastric disorders.	Goel et al. (1984)
Elephantopus scaber L. (Figure 20) (Asteraceae)	Marachutta	Roots are used for abortion and the treatment of menstrual disorders.	Goel et al. (1984)
Eleusine indica (L.) Gaertn. (Poaceae)	Kharkosa	The root paste is used to treat vaginal diseases.	Mandal et al. (2020)
Euphorbia hirta L. (Euphorbiaceae)	Pusitoa	Leaves are used as an antidote against snake bites and scorpion stings. Plant extract is used to treat skin diseases.	Goel et al. (1984) & Iyer, (1992)
Evolvulus nummularius (L.) L. (Convolvulaceae)	Sukrisure	Plants are used on cuts, wounds, and burns.	Goel et al. (1984)
Ficus racemosa L. (Moraceae)	Loa	Latex is mixed with water and taken orally to treat diarrhoea. It is also used to treat boils, blisters, and ulcers. The fruits are given for menorrhagia, bronchitis, dry cough, kidney diseases, urinary troubles, and diabetes.	Mandal et al. (2020) & Das, (2018)
Flacourtia indica (Burm.f.) Merr. (Salicaceae)	Serali	Fruits cure liver disorders.	Das, (2018)
Gnaphalium luteoalbum L. (Asteraceae)	Dudhumulu	Plants are used in mother and child health	Goel et al. (1984)
Grewia obtusa Wall. ex Dunn (Malvaceae)	Kuletaro	care. Plants are used for treating boils, blisters, and ulcers.	Goel et al. (1984)
Hemidesmus indicus (L.) R.Br. ex Schult. (Apocynaceae)	Dudhilota	Roots are used to treat skin diseases, impotency, and other sexual disorders.	Goel et al. (1984) & Iyer, (1992)
Holoptelea integrifolia (Roxb.) Planch. (Ulmaceae)	Chiroradari	The stem bark is used in hydrocele.	Goel et al. (1984)
Hygrophila auriculata (Schumach.) Heine (Acanthaceae)	Kulekhara	Freshly prepared leaf extract is used to treat anaemia.	Mandal et al. (2020)
Indigofera cassioides Rottler ex DC. (Fabaceae)	Gada phool	Plants are used for easy delivery and to promote contraception.	Goel et al. (1984)
<i>Indigofera linnaei</i> Ali (Fabaceae)	Tejomola	Roots are used for antifertility. Plants are used in veterinary medicine.	Goel et al. (1984)
Justicia adhatoda L. (Figure 2h) (Acanthaceae)	Harbakama, vasakdog	Leaf extract is taken orally to treat cough	Mandal et al. (2020) & Goel et al (1984)
Lagerstroemia speciosa (L.) Pers. (Lythraceae)	Jarul	Bark extract is used as an astringent.	Mandal et al. (2020)
Leonotis nepetifolia (L.) R.Br. Lamiaceae	Dhompo	Flowers and seeds are used on cuts, wounds, and burns.	Goel et al. (1984)
Leucas aspera (Willd.) Link (Lamiaceae)	Durfa	Leaves are crushed and mixed with a little salt and 2 drops of the juice are applied to the nose to treat headache problems.	Mandal et al. (2020)
<i>Mangifera indica</i> L. (Anacardiaceae)	Aam	The juice obtained from the crushed bark is taken orally for diarrhoea and applied to treat rheumatic pain.	Hembrom and Kumar, (2018) & Mandal et al. (2020)
<i>Mimosa rubicaulis</i> Lam. (Fabaceae)	Jhapnidari	Leaves are used for treating epilepsy and hysteria.	Goel et al. (1984)

moring a begint Lam.      Chainma, minge, mungedog      orissesse. Bark extract is used to treat mungedog      Mandal et al. (2020) & Gold et (1984)        Musa paradisiaca L.      Kayra      Sap obtained from the lower side of the stock is used for treat noise of the problems.      Mandal et al. (2020)        Musa paradisiaca L.      Kayra      Sap obtained from the lower side of the stock is used for treat noise of the problems.      Mandal et al. (2020)        Motion chosean L.      Kayra      Sap obtained from the lower side of the stock is used for treat noise of the treat noise of the stock (Ochnae chosean L.      Mandal et al. (2020)        Motion obtained from the lower side of the stock (Ochnae chosean L.      Cohon obtained from the lower side of the stock (Ochnae chosean L.      Mandal et al. (2020)        Ochna obtained from the lower side of the stock (Immiccare)      Tamis the stock and hores to treat a cough.      Mandal et al. (2020)        Other obtained from the lower side of the stock (Bignoniaceae)      Tamis the stock and the stock and stock (Dotal doceae)      Mandal et al. (2020)        Orosylum indicam (L.) Kurz (Draildoceae)      Tamis the stock and stock and stock and stock (Draildoceae)      Mandal et al. (2020)        Project and the stock and stock and stock and stock and stock (Draildoceae)      Tamis the stock and stock and stock and stock (Draildoceae)      Mandal et al. (2020)        Proper long and table stock (Poperacea)      M				
Moring or defers Lam. (Moring accac)  Chainma, mungedog mungedog  Iterating history proves is used for revers and estimation of the transit baldness. Leaves are used in mother and childs (Musaccaci)  Hembrom and Kumar, (2017) Mandal et al. (2020)    Moso portubistico L (Musaccaci)  Kayra  Sa polating of the transit is used to treat in outh users.  Mandal et al. (2020)    Neolom actives columbia (Robb) Bosser  Kodem  Leaf decoction is used to treat mouth users.  Hembrom and Kumar, (2017)    Neolom actives columbia (Robb) Bosser  Kodem  Leaf decoction is used to treat mouth users.  Mandal et al. (2020)    Nicotioni tablocum  Tamakur  Leaf decoction is given orally to the strake- log hand et al. (2020)  Mandal et al. (2020)    Ochima obissati DC.  Champa  Roots are used for treating veneral diseases.  Goel et al. (1984)    Ochima obissati DC.  Champa  Roots are used for treating veneral diseases.  Goel et al. (2020)    Optimulterun(In), Kurz (Bignoniaccac)  Banahata Tamil chatam ara  The leaves oratical is mole within the moring on an empty stomach to treat is used for truit used of returing veneral diseases.  Mandal et al. (2020)    Oxolic cornicidata L (Dapatotic cornicidat		Karla	orally once daily to prevent diabetes, stomach	Mandal et al. (2020)
(Musaccae)      (Musaccae)      Mandal et al. (2020)        Neolimarckic acodomba (Robb.) Bosser      Kodom      Leaf decoction is used to treat cholers.      Mandal et al. (2020)        Micotiane tubbecum I.      Tamaku      Leaf decoction is given crally to the snake- bite patient.      Mandal et al. (2020)        Ochna obtastra DC.      Champa      Roots are used for treating venereal diseases.      Goel et al. (1984)        Ochna obtastra DC.      Champa      Roots are used for treating venereal diseases.      Goel et al. (2020)        Ochna obtastra DC.      Champa      Roots are used for treating venereal diseases.      Goel et al. (2020)        Ochna obtastra DC.      Tulsi      The leaves extract is mixed with ginger pasts      Mandal et al. (2020)        Oronybun indicom (1.) Kurz      Banahata      morning on an empty stomach to treat indicitato L.      Mandal et al. (2020) & lyer, (2017)        Oxalis corniculato L      Tandi chatam ara Tandi chatam ara (Ukaldaceae)      The leaves are used for treating vents whole plant (1972)      Mandal et al. (2020)        Phylumitase emblico L      Merel      Leaves are and taken 2      Mandal et al. (2020)        (Puppronceae)      Pan      Leaf decoction is used to treat systems whole plant (1972)      Mandal et al. (2020)        Phylumitase emblic		, ,,	treat high blood pressure. Tender leaves powder is used for scurvy and catarrhal diseases. Bark extract is used to treat epilepsy. The stem bark is used for treating baldness. Leaves are used in mother and child	
Neolimarckin cadamba (Roth) Bosser      Kodom      Leaf decoction is used to treat mouth alcers. Bark is used to treat tholera.      Hembrom and Kumar, (2018) (Rubiaceae)        (Rothad abcum L. (Solanaceae)      Tamakur      Leaf decoction is given carality to the snake bite partient.      Mandal et al. (2020)        (Ochna obstar DC. (Ochnaceae)      Champa      Roots are used for treating venereal diseases.      Goel et al. (1984)        Ocimum thoughorum L. (Lamiaceae)      Tulsi      The leaves actract is mixed with ginger pasts and honey to treat a cough.      Mandal et al. (2020) & Mandal et al. (2020) & Singh, 2017)        Orogivum indicam (L) Kurz (Bignoniaceae)      Banahata      Stem bark pasts is taken orally in the ipaundice 72-3 days for strast is maken bites and teader truit is used for fratugence.      Mandal et al. (2020) & leyer, (1922)        Orogivum indicame L) (Bignoniaceae)      Tandi chatam ara ipacie is used for creat gist distanese.      Mandal et al. (2020) & leyer, (1922)        Persiticaria barrheat (L) III.IIara (Euphorbicaee)      Ipyeti      The leaf excitaci is used for treat gist distanese.      Singh, (2017), Mandal et al. (2020) & Hembrom and Kuma (Euphorbicaee)        Piper betie L      Pan      Decoction of dried firuit jace treats diarrhoea, (Euphorbicaee)      Singh, (2017), Mandal et al. (2020) & Hembrom and Kuma (Euphorbicaee)        Piper betie L      Pan      Leaf decoction is used to treat dysentery, (Euphorbicaee)		Kayra	Sap obtained from the lower side of the stock	Mandal et al. (2020)
(Solanaceae)      Tainaku      bite patient.      (Mandal et al. (2020)        Ochron obtosata DC. (Ochnaceae)      Champa      Roots are used for treating venereal diseases.      Godel et al. (1984)        Ochron obtosata DC. (Lamiaceae)      The leaves extract is mixed with ginger paste (Bignoniaceae)      Mandal et al. (2020)        Oronylum indicum (L-) Kurz (Bignoniaceae)      Banabata      Stem bark paste is taken orally in the morning on an empty stomach to treat jaundice. The bark is used for staluence.      Mandal et al. (2020) & Singh, (2017)        Oxalis corniculata L (Oxalidaceae)      Tandi chatam are particulate al. (2020)      Leaves are made into a paste and taken 2      Mandal et al. (2020) & Jyer, (1992)        Persicuria barchata (L-)      The leaves are made into a paste and taken 2      Mandal et al. (2020)        (Polygonaceae)      Ipyet      The leaves are made into a paste and taken 2      Mandal et al. (2020)        Priper barceae)      Merel      Decoction of dried fruit jucic treats diarrhoea, (2018)      Mandal et al. (2020)        Piper bogm. L (Piperaceae)      Merel      Leaf juice is used to treat ocyup      Mandal et al. (2020)        Piper bogm. L (Dynamiceae)      Colinirac      True is used to reat skin diseases.      Goel et al. (1984)        Piper bogm. L (Dynamiceae)      Golinirac      True finic is used to tr	Neolamarckia cadamba (Roxb.) Bosser	Kodom	Leaf decoction is used to treat mouth ulcers.	
Ochnaccae)      Champa      Roots are used for treating venereal diseases.      Coel et al. (1984)        Orimus trumufforum I.      Tulsi      The leaves extract is mixed with ginger paste and honey to treat a cough.      Mandal et al. (2020)        Oroxylum indicum (L.) Kurz (Bignoniaceae)      Banahata      Stem bark paste is taken orally in the morning on an empty stomach to treat jundice. The barks past is used for splaulence.      Mandal et al. (2020) & Singh.        Ocalis corniculatu I.      Tandi chatam ara      Leaves are made into a paste and taken 2      Mandal et al. (2020) & U(202) & U(202)        (Polygonaceae)      The leaf extract is taken orally to prevent pregnancy.      Mandal et al. (2020) & U(202)        (Polygonaceae)      Persicorin dorbata (L.) Hilara      Decoction of dried fruit juice treats diarrhoea, (2020) & Hembrom and Kuma (Euphorbiaccae)      Singh, (2017), Mandal et al. (2020)        Piper hongum I.      Reale      extract is used to treat fevore.      (2018)        Piper hongum I.      Gelmirac      Fuit juice is used to treat dysnetry and bark (Lamiaccae)      Mandal et al. (2020)        Piper nagrum I.      Gelmirac      Pred fruit dicecction is used to treat cough (Riper nagrum I.      Gelmirac        Raucolifa serpentina (L.) Benth. (Convolvulaccae)      Gelmirac      Not paste is used for treat mad tobarkes and (Dest) for head.      Goel et al. (1984)<		Tamakur		Mandal et al. (2020)
(Lamiaceae)      Tuist      and honey to treat a cough.      Wandal et al. (2020)        Oroxylum indicum (L.) Kurz (Bignoniaceae)      Banahata      Stem bark paste is taken orally to mark to treat is used for aluneace.      Mandal et al. (2020) & Singh.        Oxolis corniculato L. (0xalidaceae)      Tandi chatam ara (0xalidaceae)      Tandi chatam ara (1922)      Leaves are made into a paste and taken 2 teapons nor 2-3 days for stimuch ache or 10-12 days for gastric problems. Whole plant (1922)      Mandal et al. (2020) & Henbrom and Kuma (2020) & Henbrom and Kuma (2020) & Henbrom and Kuma (Euphorbiaceae)        Pristoria barbato (L.) H.Hara (Euphorbiaceae)      Invest      Decoction of dried fruit juce treat diarhoea, Leaves are made into a paste and taken orally to prevent pregnancy.      Mandal et al. (2020) & Henbrom and Kuma (2020) & Henbrom and Kuma (2020) & Henbrom and Kuma (2020)        Piper betle L. (Pipercaceae)      Pan      Leaf juice is used to treat drever.      Mandal et al. (2020)        Piper longum L. (Pipercaceae)      Pan      Leaf juice is used to treat drever.      Mandal et al. (2020)        Piper nigrum L. (Lamiaceae)      Ralee      Fruit juice is used to treat drever.      Mandal et al. (2020)        Premo altrifolia Thwaites (Lamiaceae)      Golmirac      Dried fruit decoction is used to treat drever.      Mandal et al. (2020)        Premo altrifolia Thwaites (Rooxb) Moldenke      Borogiriha      Root paste is us		Champa	Roots are used for treating venereal diseases.	Goel et al. (1984)
Oroxylum Indicum (L) Kurz (Bignoniaceae)      Banahata Banahata      moring on an empty stomach to treat plandice. The bark is used for paste and taken 2 (Oxaliaceae)      Mandal et al. (2020) & Singh. (2017)        Oxalis corniculato L. (Oxalidaceae)      Tandi chatam ara (Doxalis corniculato L. (Oxalidaceae)      Tandi chatam ara (Polygonaceae)      Laeves are made into a paste and taken 2 (1942)      Mandal et al. (2020) & Iyer, (1992)        Persicario barbata (L) H.Hara (Euphorbiaceae)      Jiyeti      The leaf extract is taken orally to prevent pregnancy.      Mandal et al. (2020)      Mandal et al. (2020)        Piper hefle L. (Piper caceae)      Merel      Decotion of drief mult juce treats diarrhoea, dysentery, anaemia, and cystits in women.      Singh, (2017), Mandal et al. (2020) & Hembrom and Kuma dysentery, anaemia, and cystits in women.      Singh, (2017), Mandal et al. (2020)        Piper hefle L. (Piper caceae)      Pan      Leaf juice is used to treat dysentery and bark dysentery.      Mandal et al. (2020)        Piper nigrum L. (Euphorbiaceae)      Ralee      Fruit juice is used to treat dysentery.      Mandal et al. (2020)        Piper nigrum L. (Empaceae)      Golmirac      Deried fruit decortion is used to freat cough and dysentery.      Mandal et al. (2020)        Prema latifolia Thwaites (Roxb) Moldenke      Borogiriha      Root paste is used to treat cuts and wounds and appied to snake bites. Decortion of thefer treats is also used to treat field is spetery, a	-	Tulsi	0 0 1	Mandal et al. (2020)
Oxalis corniculata L. (Oxalidaceae)    Tandi chatam ara (Oxalidaceae)    Leaves are made into a paste and taken 2 tesponos for 2-3 days for stameach ache or 10-12 days for gastric problems. Whole plant juice is used for curing skin diseases.    Mandal et al. (2020) & lyer, (1992)      Persicoria barbata (L.) H.Hara (Euphorbiaceae)    Ibyeti Ibyeti (Polygonaceae)    Merel    Decortion of ifed fruit juice trast staken orally to prevent dysentery, anaemia, and cystitis in women.    Mandal et al. (2020)    Kingh, (2017), Mandal et al. (2020)      Phylanthus emblica L. (Euphorbiaceae)    Pan    Leaf decortion is used to treat fever.    (2018)      Piper betle L. (Piperaceae)    Pan    Leaf fuct is used to treat dysentery and bark extract is used to reat ousel to treat cough and dysentery.    Mandal et al. (2020)      Piper ingrum L. (Piperaceae)    Golmirac    Dried fruit decortion is used to treat cough and dysentery.    Mandal et al. (2020)      Permolatifyloin Thwates (Fabaceae)    Sitapan    Latex is used for treating boils, blisters, and ulcers.    Goel et al. (1984), Uer, (1992)      Premolatifyloin Thwates (Rawolfia serpenting (L.) Benth, ex Kurz    Sarpagandha and applied to snake bites. Decortion of the rot is also used to treat there, dysentery, and hyporcorteriformis (Apocynaceae)    Goel et al. (1984)      Rowto paste is used for treating toothaches and gum problems.    Goel et al. (2020) & Singh, (2017)      Premolatifyloi serpentring (L.) Benth, ex Kurz    Erado		Banahata	morning on an empty stomach to treat jaundice. The bark is used for spleen enlargement. Seeds are used against snake	Mandal et al. (2020) & Singh, (2017)
Persicaria barbata (L.) H.Hara (Polygonaceae)      The leaf extract is taken orally to prevent pregnancy.      Mandal et al. (2020)        Phyllanthus emblica L. (Euphorbiaceae)      Merel      Decoction of dried fruit juice treats diarnhoea, dysentery, anaemia, and cystits in women.      Singh, (2017), Mandal et al. (2020) & Hembrom and Kuma Leaf decoction is used to treat fever.      Singh, (2017), Mandal et al. (2020)        Piper bette L. (Piperaceae)      Pan      Leaf juice is used externally for headaches.      Mandal et al. (2020)        Piper ingrum L. (Piperaceae)      Ralee      Fruit juice is used to treat dysentery and bark extract is used to treat skin diseases.      Mandal et al. (2020)        Premona fulfolia Thwaites (Lamiaceae)      Sitapan      Latex is used for treating boils, blisters, and ulcars.      Goel et al. (1984)        Pterocarpus marsupium Roxb. (Fabaceae)      Murga      Leaves are used to treat skin diseases. Heartwood infusion is used for diabetes, diarrhoea, and dysentery.      Goel et al. (1984)        Row paste is used to treat rhumatism and gout. (Lamiaceae)      Fradoom      Sore paste is used to treat skin diseases.      Goel et al. (2020) & Singh, (2017)        Pygmaeopreman herbacea (Roxb.) Moldenke      Borogiriha      Root paste is used to treat rhumatism and gout. (Apocynaceae)      Goel et al. (2020) & Singh, (2017)      Goel et al. (2020) & Singh, (2017)        Ritrus sommunis L. (Euphorbiaceae)      Eradoom<		Tandi chatam ara	Leaves are made into a paste and taken 2 teaspoons for 2-3 days for stomach ache or 10-12 days for gastric problems. Whole plant	
Phyllanthus emblica L. (Euphorbiaceae)    Merel    Decoction of dried fruit juice treats diarnoea. dysentery, anaemia, and cystitis in women. (2020) & Hembrom and Kuma Leaf decoction is used to treat (ever. (2018)    Singh, (2017), Mandal et al. (2020)      Piper betle L. (Piperaceae)    Pan    Leaf juice is used externally for headaches. (Piperaceae)    Mandal et al. (2020)      Piper longum L. (Piperaceae)    Ralee    Fruit juice is used to treat dysentery and bark extract is used to reate lethargy.    Mandal et al. (2020)      Piper nigrum L. (Lamiaceae)    Golmirac    Dried fruit decoction is used to treat cough and dysentery.    Mandal et al. (2020)      Pterocarpus marsupium Roxb. (Fabaceae)    Sitapan    Latex is used for treating boils, blisters, and ulcers.    Goel et al. (1984)      Rowto Jia serpentina (L.) Benth. ex Kurz (Roxb.) Moldenke    Borogiriha    Roots are used to treat reus and mounds and applied to snake bites. Decoction of the root is also used to treat fever, dysentery, and hypertension.    Mandal et al. (2020) & Singh, (2017)      Ricinus communis L (Euphorbiaceae)    Eradom    Seed oil is applied on the belly to treat stomach aches.    Mandal et al. (2020) & Singh, (2017)      Seneargus anacardium Lf. (Convolvulaceae)    Chini dare    The plants are used for treating bothaches and gum problems.    Goel et al. (1984)      Senear appart of the fruits is considered good for the fermale reproductive (Fabaceae)    Soso    The		Jiyeti	The leaf extract is taken orally to prevent	Mandal et al. (2020)
(Piperaceae)PainLear junce is used to trent dysentery.Mandal et al. (2020)Piper logum L. (Piperaceae)RaleeFruit junce is used to treat dysentery and bark extract is used to treat cough and dysentery.Mandal et al. (2020)Piper nigrum L. (Piperaceae)GolmiracDried fruit decoction is used to treat cough and dysentery.Mandal et al. (2020)Premna latifolia Thwaites (Lamiaceae)SitapanLatex is used for treat skin diseases. Heartwood infusion is used to treat skin diseases. (2017)Pygmaeopremna herbacea (Roxb) Moldenke (Lamiaceae)BorogirihaRoot paste is used to treat skin diseases. Heartwood infusion is used to treat skin diseases. Mandal et al. (2020) & Singh, (2017)Rauvolfia serpentina (L.) Benth. ex Kurz (Euphorbiaceae)EradomSeed oil is applied to nake bites. Decotion of the too tis about on the belly to treat stomach aches.Mandal et al. (2020) & Singh, (2017)Riceus communis L. (Euphorbiaceae)EradomSeed oil is applied on the belly to treat stomach aches.Mandal et al. (2020)Semecarpus anacard	Phyllanthus emblica L.	Merel	Decoction of dried fruit juice treats diarrhoea, dysentery, anaemia, and cystitis in women.	(2020) & Hembrom and Kumar,
(Piperaceae)Rateextract is used to reduce lethargy.Mandal et al. (2020)Piper nigrum L. (Piperaceae)GolmiracDried fruit decoction is used to treat cough and dysentery.Mandal et al. (2020)Premna latifolia Thwaites (Lamiaceae)SitapanLatex is used for treating boils, blisters, and ulcers.Goel et al. (1984)Pterocarpus marsupium Roxb. (Fabaceae)MurgaLeaves are used to treat skin diseases. Heartwood infusion is used for diabetes, diarrhoea, and dysentery.Goel et al. (1984), lyer, (1992)Pygmaeopremna herbacea (Roxb.) Moldenke (Lamiaceae)BorogirihaRoots are used to treat cuts and wounds and applied to snake bites. Decoction of the hopertension.Goel et al. (2020) & Singh, (2017)Rauvolfa serpentina (L.) Benth. ex Kurz (Euphorbiaceae)EradomSeed oil is applied on the belly to treat stomach aches.Mandal et al. (2020) & Singh, (2017)Ricinus communis L. (Euphorbiaceae)EradomSeed oil is applied on the belly to treat stomach aches.Mandal et al. (2020) Mandal et al. (2020)Semecarpus anacardium L.f. (Convolvulaceae)Chini dareThe plant leaves are crushed and taken orally system.Mandal et al. (2020)Semecarpus anacardium L.f. (Figure 21)Sarjam SarjamThe red-orange part of the fruits is considered good for the female reproductive system.Das, (2018)Senon sophera Roxb. (Figure 21)ChakodaLeaves' decoction is used as a laxative. Resin is used to treat cough, cold, asthma, and bronchitis.Mandal et al. (2020)Solanum tuberosum L. (Solanaceae)AluBoiled t	-	Pan	Leaf juice is used externally for headaches.	Mandal et al. (2020)
Piper nigrum L. (Piperaceae)GolmiracDried fruit decoction is used to treat cough and dysentery.Mandal et al. (2020)Premna latifolia Thwaites (Lamiaceae)SitapanLatex is used for treating boils, blisters, and ulcers.Goel et al. (1984)Pterocarpus marsupium Roxb. (Fabaceae)MurgaLatex is used for treat skin diseases. Heartwood infusion is used for diabetes, diarrhoea, and dysentery.Goel et al. (1984), lyer, (1992) Singh, (2017)Pygmaeopreman herbacea (Roxb.) Moldenke (Lamiaceae)BorogirihaRoots are used to treat rheumatism and gout.Goel et al. (1984)Rauvolfa serpentina (L.) Benth. ex Kurz (Apocynaceae)SarpagandhaRoot sare used to treat cuts and wounds and applied to snake bites. Decoction of the stomach aches.Mandal et al. (2020) & Singh, (2017)Ricinus communis L. (Euphorbiaceae)EradomSeed oil is applied on the belly to treat stomach aches.Mandal et al. (2020)Rivea (Donsolvulaceae)KiduraPlants are used for treating toothaches and gum problems.Goel et al. (1984)Semearpus anacardium Lf. (Plantaginaceae)Chini dareThe red-orange part of the fruits is considered good for the female reproductive system.Mandal et al. (2020)Semearpus anacardium Lf. (Figure 21) (Dipterocarpaceae)ChakodaLeaves' decoction is used to treat wounds. Resin is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum tuberosum L. (Solanaceae)AluFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)		Ralee		Mandal et al. (2020)
(Lamiaceae)Stapanulcers.Uber et al. (1994)Pterocarpus marsupium Roxb. (Fabaceae)MurgaLeaves are used to treat skin diseases. Heartwood infusion is used for diabetes, diarrhoea, and dysentery.Goel et al. (1984), lyer, (1992) Singh, (2017)Pygmaeopremna herbacea (Roxb), Moldenke (Lamiaceae)BorogirihaRoots are used to treat rheumatism and gout.Goel et al. (1984)Rauvolfia serpentina (L.) Benth. ex Kurz (Apocynaceae)BorogirihaRoots are used to treat cuts and wounds and applied to snake bites. Decoction of the root is also used to treat fever, dysentery, and hypertension.Mandal et al. (2020) & Singh, (2017)Ricinus communis L. (Euphorbiaceae)EradomSeed oil is applied on the belly to treat gum problems.Mandal et al. (2020)Rivea (Desr.) Choisy (Convolvulaceae)Flants are used for treating toothaches and gum problems.Goel et al. (1984)Semecarpus anacardium Lf. (Anacardiaceae)Chini dareThe plant leaves are crushed and taken orally to treat blood dysentery.Mandal et al. (2020)Semecarpus anacardium Lf. (Flabaceae)ChakodaLeaves' decoction is used as a laxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i) (Dipterocarpaceae)SarjamYoung leaf paste is used to treat cough, cold, astima, and bronchitis.Goel et al. (1984)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, astima, and bronchitis.Goel et al. (2020)Solanum khasianum L. (Solanaceae)AluBoiled tubers are taken with a little salt for astima, and b	Piper nigrum L.	Golmirac	Dried fruit decoction is used to treat cough	Mandal et al. (2020)
Prerocarpus marsupum Koxb. (Fabaceae)MurgaHeartwood infusion is used for diabetes, diarrhoea, and dysentery.Goel et al. (1984), Iyer, (1992) Singh, (2017)Pygmaeopremna herbacea (Roxb.) Moldenke (Lamiaceae)BorogirihaRoots are used to treat rheumatism and gout.Goel et al. (1984)Rauvolfia serpentina (L.) Benth. ex Kurz (Apocynaceae)SarpagandhaRoot paste is used to treat cuts and wounds and applied to snake bites. Decoction of the root is also used to treat fever, dysentery, and hyportension.Mandal et al. (2020) & Singh, (2017)Ricinus communis L. (Euphorbiaceae)EradomSeed oil is applied on the belly to treat stomach aches.Mandal et al. (2020) (2017)Rivea hypocrateriformis (Convolvulaceae)KiduraPlants are used for treating toothaches and gum problems.Goel et al. (1984)Semecarpus anacardium Lf. (Anacardiaceae)Chini dare SosoThe plant leaves are crushed and taken orally to treat blood dysentery.Mandal et al. (2020)Senna sophera Roxb. (Fabaceae)ChakodaLeaves' decoction is used as a laxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i) (SarjamSarjam SarjamYoung leaf paste is used to treat cough, cold, asthma, and bronchitis.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum khasianum C.B.Clarke (Solanaceae)AluBoiled tubers are taken with a little salt for asthma, and bronchitis.Mandal et al. (2020) <td></td> <td>Sitapan</td> <td></td> <td>Goel et al. (1984)</td>		Sitapan		Goel et al. (1984)
Pygmaeopremna herbacea (Roxb.) Moldenke    Borogiriha    Roots are used to treat rheumatism and gout.    Goel et al. (1984)      Rauvolfa serpentina (L.) Benth. ex Kurz    Sarpagandha    Root paste is used to treat cuts and wounds and applied to snake bites. Decoction of the root is also used to treat fever, dysentery, and hypertension.    Mandal et al. (2020) & Singh, (2017)      Ricinus communis L. (Euphorbiaceae)    Eradom    Seed oil is applied on the belly to treat stomach aches.    Mandal et al. (2020)      Rivea    Flants are used for treating toothaches and gum problems.    Goel et al. (1984)    Goel et al. (1984)      Scoparia dulcis L. (Convolvulaceae)    Chini dare    The plant leaves are crushed and taken orally to treat blood dysentery.    Mandal et al. (2020)      Semecarpus anacardium Lf. (Anacardiaceae)    Soso    The red-orange part of the fruits is considered good for the female reproductive system.    Das, (2018)      Shorea robusta C.F.Gaertn. (Figure 21)    Chakoda    Leaves' decoction is used as a laxative.    Mandal et al. (2020)      Solanum khasianum C.B.Clarke (Solanaceae)    Hanje    Fruits and roots are used to treat cough, cold, asthma, and bronchitis.    Goel et al. (1984)      Solanum tuberosum L (Solanaceae)    Alu    Boiled tubers are taken with a little salt for stomach pain.    Mandal et al. (2020)		Murga	Heartwood infusion is used for diabetes,	Goel et al. (1984), Iyer, (1992) & Singh, (2017)
Rativolitid serpentindL.) Benth.Sarpagandhaand applied to snake bites. Decoction of the root is also used to treat fever, dysentery, and hypertension.Mandal et al. (2020) & Singh, (2017)Ricinus communis L. (Euphorbiaceae)EradomSeed oil is applied on the belly to treat stomach aches.Mandal et al. (2020)Rivea hypocrateriformis (Convolvulaceae)KiduraPlants are used for treating toothaches and gum problems.Mandal et al. (2020)Scoparia dulcis L. (Plantaginaceae)Chini dareThe plant leaves are crushed and taken orally to treat blood dysentery.Mandal et al. (2020)Semecarpus anacardium L.f. (Anacardiaceae)SosoThe relateves are crushed and taken orally to treat blood dysentery.Mandal et al. (2020)Senna sophera Roxb. (Fabaceae)ChakodaLeaves' decoction is used as a laxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i) (Dipterocarpaceae)SarjamYoung leaf paste is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cystitis in women.Goel et al. (1984) Mandal et al. (2020)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)	(Roxb.) Moldenke	Borogiriha	Roots are used to treat rheumatism and gout.	Goel et al. (1984)
(Euphorbiaceae)Eradomstomach aches.Mandal et al. (2020)Rivea hypocrateriformis (Desr.) Choisy (Convolvulaceae)KiduraPlants are used for treating toothaches and gum problems.Goel et al. (1984)Scoparia dulcis L. (Plantaginaceae)Chini dareThe plant leaves are crushed and taken orally to treat blood dysentery.Mandal et al. (2020)Semecarpus anacardium L.f. (Anacardiaceae)SosoThe red-orange part of the fruits is considered good for the female reproductive system.Das, (2018)Senna sophera Roxb. (Fabaceae)ChakodaLeaves' decoction is used as a laxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i) (Solanaceae)SarjamYoung leaf paste is used to treat wounds. Resin is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)	ex Kurz	Sarpagandha	and applied to snake bites. Decoction of the root is also used to treat fever, dysentery, and	Mandal et al. (2020) & Singh, (2017)
hypocrateriformis (Desr.) Choisy (Convolvulaceae)KiduraPlants are used for treating toothaches and gum problems.Goel et al. (1984)Scoparia dulcis L. (Plantaginaceae)Chini dareThe plant leaves are crushed and taken orally to treat blood dysentery.Mandal et al. (2020)Semecarpus anacardium L.f. (Anacardiaceae)SosoThe red-orange part of the fruits is considered good for the female reproductive system.Das, (2018)Senna sophera Roxb. (Fabaceae)ChakodaLeaves' decoction is used as a laxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i) (Dipterocarpaceae)SarjamYoung leaf paste is used to treat wounds. Resin is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)		Eradom		Mandal et al. (2020)
(Plantaginaceae)Chiln dareto treat blood dysentery.Mandal et al. (2020)Semecarpus anacardium L.f. (Anacardiaceae)SosoThe red-orange part of the fruits is considered good for the female reproductive system.Das, (2018)Senna sophera Roxb. (Fabaceae)ChakodaLeaves' decoction is used as a laxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i)SarjamYoung leaf paste is used to treat wounds. Resin is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)	hypocrateriformis (Desr.) Choisy	Kidura		Goel et al. (1984)
Semecarpus anacardium L.f. (Anacardiaceae)SosoThe red-orange part of the fruits is considered good for the female reproductive system.Das, (2018)Senna sophera Roxb. (Fabaceae)ChakodaLeaves' decoction is used as a laxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i) (Dipterocarpaceae)SarjamYoung leaf paste is used to treat wounds. Resin is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)	Scoparia dulcis L.	Chini dare		Mandal et al. (2020)
(Fabaceae)ChakodaLeaves decortion is used as a faxative.Mandal et al. (2020)Shorea robusta C.F.Gaertn. (Figure 2i)SarjamYoung leaf paste is used to treat wounds. Resin is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)	Semecarpus anacardium L.f.	Soso	The red-orange part of the fruits is considered good for the female reproductive	Das, (2018)
Shorea robusta C.F.Gaertn. (Figure 2i)Young leaf paste is used to treat wounds. Resin is used to treat cystitis in women.Hembrom and Kumar, (2018) Mandal et al. (2020)Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)		Chakoda	Leaves' decoction is used as a laxative.	Mandal et al. (2020)
Solanum khasianum C.B.Clarke (Solanaceae)HanjeFruits and roots are used to treat cough, cold, asthma, and bronchitis.Goel et al. (1984)Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)	Shorea robusta C.F.Gaertn. (Figure 2i)	Sarjam		Hembrom and Kumar, (2018) & Mandal et al. (2020)
Solanum tuberosum L. (Solanaceae)AluBoiled tubers are taken with a little salt for stomach pain.Mandal et al. (2020)	Solanum khasianum C.B.Clarke	Hanje		Goel et al. (1984)
	Solanum tuberosum L.	Alu	Boiled tubers are taken with a little salt for	Mandal et al. (2020)
Streblus asper Lour. Sahora Used in toothache. Mandal et al. (2020) (Figure 2g) (Solanaceae)	Streblus asper Lour.	Sahora		Mandal et al. (2020)

<i>Syzygium cumini</i> (L.) Skeels (Figure 2c) (Myrtaceae)	Kode dare, sokod	Juice is made from bark and taken orally for stomach aches and gastric problems. Decoction of the fruits and seeds is given to control diabetes and urinary troubles.	Hembrom and Kumar, (2017), Mandal et al. (2020) & Das, (2018)
<i>Tagetes erecta</i> L. (Asteraceae)	Kusumbibaha	The leaves extract is used to stop bleeding.	Mandal et al. (2020)
Tamarindus indica L. (Fabaceae)	Jojo dare	Fruit is used as a laxative.	Mandal et al. (2020)
Taxillus tomentosus (B.Heyne ex Roth) Tiegh. (Loranthaceae)	Guthibanda	Leaves are used to treat malaria and fevers.	Goel et al. (1984)
Terminalia arjuna (Roxb. ex DC.) Wight & Arn. (Combretaceae)	Kouha	Bathing with bark decoction reduces body pain and is used to treat leprosy.	Hembrom and Kumar, (2018) & Mandal et al. (2020)
<i>Terminalia bellirica</i> (Gaertn.) Roxb. (Combretaceae)	Boyra	Seeds are used to treat dysentery. Ripe dry fruits are used for diarrhoea, dropsy, headache, indigestion, and piles. The bark is used for anaemia and leukoderma.	Mandal et al. (2020) & Singh, (2017)
<i>Terminalia catappa</i> L. (Combretaceae)	Badam	The kernel of the fruits is eaten fresh to relieve constipation but high doses can cause diarrhoea.	Das, (2018)
Thysanolaena maxima (Roxb.) Kuntze (Poaceae)	Veerkunga	Roots are used in veterinary medicine.	Goel et al. (1984)
Toona ciliata M.Roem. (Meliaceae)	Tun	The stem bark is used for treating gastric disorders.	Goel et al. (1984)
Vachellia nilotica (L.) P.J.H.Hurter & Mabb. (Fabaceae)	Babla	Pods are used for the treatment of dysentery.	Mandal et al. (2020)
Viscum articulatum Burm.f. (Santalaceae)	Banda	Plants are used for the treatment of bone fractures.	Goel et al. (1984)
Vitex negundo L. (Lamiaceae)	Sinwari	Leaves are used to treat pains, swellings, and body aches.	Goel et al. (1984)
Woodfordia fruticosa (L.) Kurz (Lythraceae)	Iccha	Flowers are used for cooling effects.	Goel et al. (1984)
Zingiber officinale Roscoe (Zingiberaceae)	Ada	Rhizome paste is used to treat a cough.	Mandal et al. (2020)
Ziziphus mauritiana Lam. (Rhamnaceae)	Kul	Paste of seeds is good for leucorrhea.	Mandal et al. (2020)



Fig. 2. Some common medicinal plants used by the Santhal community (a) Alangium salviifolium, (b) Dendrophthoe falcata, (c) Syzygium cumini, (d) Butea monosperma, (e) Aegle marmelos, (f) Andrographis paniculata, (g) Streblus asper, (h) Justicia adhatoda, (i) Shorea robusta, (j) Azadirachta indica, (k) Calotropis gigantea, (l) Centella asiatica, (m) Coccinia grandis, (n) Diospyros melanoxylon, (o) Elephantopus scaber.

### BIOACTIVE COMPOUNDS AVAILABLE ON MEDICINAL PLANTS USED BY THE SANTHAL COMMUNITY

The reported bioactive compounds of selected medicinal plants used by the Santhal community of India have diverse therapeutic uses and some are discussed below. The most important bioactive compounds isolated like Achyranthine from *Achyranthes aspera*, Allitridin from *Allium sativum*, Andrographolide from *Andrographis paniculata*, Asiaticosides from *Centella asiatica*, Azadirachtin from *Azadirachta indica*, Betulin from *Diospyros melanoxylon* and Deoxyelephantopin from *Elephantopus scaber* (Figure 3). Details are listed in Table 2.

Table 2. Important bioactive con	npounds in commonly use	ed medicinal plants b	v the Santhal community.

Secondary Metabolites	Plants	Bioactivity	Source
Achyranthine and Achyranthoside C	Achyranthes aspera	Cardiovascular activity	Ghimire et al. (2015)
Allitridin	Allium sativum	Anti-ulcer activity	Gupta et al. (2021)
Andrographolide	Andrographis paniculata	Antidiabetic activity	Bhatnagar (2023)
Aristolochic acid I	Aristolochia indica	Antitumour activity	Lerma-Herrera et al. (2022)
Asiaticosides	Centella asiatica	Wound-healing activity	Gupta et al. (2021)
Asperoside, indroside, and strebloside	Streblus asper	Anti-diabetic activity	Chamariya et al. (2022)
Azadirachtin	Azadirachta indica	Antioxidant activity	Alzohairy, (2016)
Baicalein	Oroxylum indicum	Anti-tumour and anti-cancer activity	Salleh et al. (2020)
Betulin	Diospyros melanoxylon	Anti-diabetic activity	Al Rashid et al. (2018)
Bhilawanol and anacardic acid	Semecarpus anacardium	Anti-cancer, anti-bacterial and anti-inflammatory activity	Al Mugnairbi et al. (2021)
Curcumin	Curcuma longa	Anti-inflammatory activity	Gupta et al. (2021)
Deoxyelephantopin	Elephantopus scaber	Anti-oxidant activity and anticancer activity	Wang et al. (2014); Hirdeve and Rangari, (2014)
Eugenol	Ocimum tenuiflorum	Anti-ulcerogenic property	Gupta et al. (2021)
Gangetin	Desmodium gangeticum	Anti-cancer activity	Joshi et al. (2023)
Hemidesmol	Hemidesmus indicus	Anti-cancer activity	Darshini et al. (2024) & Nandy et al. (2020)
Leucasperosides	Leucas aspera	Hepato-protective activity	Das et al. (2012)
Lycopene	Carica papaya	Anti-oxidant activity	Gupta et al. (2021)
Marsupsin & pterostilbene	Pterocarpus marsupium	Anti-diabetic activity	Ahmad et al. (2022)
Phyllantine	Phyllanthus emblica	Anti-oxidant activity	Gupta et al. (2021)
Piperine	Piper nigrum	Antihypertensive, anti- asthmatic, and anti- inflammatory activity	Ashokkumar et al. (2021)
Piperine	Piper longum	Anticancer and antioxidant activity	Carsono et al. (2022)
Quercetin	Bauhinia acuminata	Antimicrobial activity	Malek et al. (2024)
Racemosic acid	Ficus racemosa	Anti-fungal activity	Chaware et al. (2020)
Racemosides	Asparagus racemosus	Antioxidant activity	Negi et al. (2010)
Reserpine	Rauvolfia serpentina	Antihypertensive activity	Kumari et al. (2013)
Salviifosides	Alangium salviifolium	Anti-inflammatory activity	Panara et al., (2016)
Serpentine	Rauvolfia serpentina	Antipsychotic activity	Kumari et al. (2013)
Shogaol	Zingiber officinale	Anti-ulcer activity	Gupta et al. (2021)
Vasicine	Justicia adhatoda	Anti-inflammatory activity and antioxidant activity	Ahmad et al. (2009) & Narasimhaji et al. (2023)
Viridiflorol	Vitex negundo	Anti-inflammatory, antioxidant, and anti- mycobacterium tuberculosis activity	Garg et al. (2024)
Vitexin	Butea monosperma	Anti-inflammatory activity	Gupta et al. (2021)
	•		

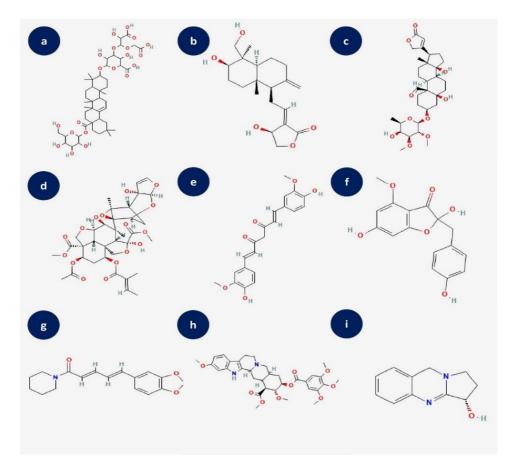


Fig. 3. Bioactive compounds present in the medicinal plants used by Santhal community (a) Achyranthoside C, (b)
 Andrographolide, (c) Strebloside, (d) Azadirachtin, (e) Curcumin, (f) Marsupsin, (g) Piperine, (h)
 Reserpine and (i) Vasicine (https://pubmed.ncbi.nlm.nih.gov/ (accessed on 28 December 2024)).

# NUTRACEUTICALS USED BY THE SANTHAL COMMUNITY

Nutraceuticals are an important seasonal food of the Santhal community throughout their inhabitant areas. They usually consume the fruits of Aegle marmelos, Alangium salviifolium, Annona reticulata, Annona squamosa, Antidesma acidum, Antidesma bunius, Artocarpus heterophyllus, Artocarpus lacucha, Baccaurea ramiflora, Bridelia retusa, Buchanania Myena spinosa, lanzan, Cordia dichotoma, Dillenia Diospyros pentagyna, malabarica, Diospyros melanoxylon, Ficus benghalensis, Flacourtia indica, Flacourtia jangomas, etc. They also consume the leafy nutraceuticals like Achyranthes aspera, Aerva lanata, Amaranthus spinosus, Amaranthus viridis, Alternanthera sessillis, Azadirachta indica, Bacopa monieri, Centella asiatica, Bauhinia purpurea, Begonia picta, etc. The most common tuberous nutraceuticals consumed by the Santhal community Amorphophallus are paeoniifolius, Dioscorea bulbifera, Dioscorea pubera, Dioscorea wallichi, Dioscorea hispida and Solena amplexicaulis. These plant parts have a lot of nutraceutical and pharmacological potential, which should be explored scientifically.

## UNEXPLORED MEDICINAL FOOD CONSUMED BY THE SANTHAL COMMUNITY

A Santhal community has very good knowledge about the therapeutic agents, they also use such plants which are not been explored. During the fieldwork for this review, the authors found some plants with very less or no reports. These plants are most important in the contemporary situation where the world faces AMR and drug failure. The enumerated unexplored plants are Zanthoxylum rhetsa, Vitex leucoxylon, Symplocos cochinchinensis, Styrax serrulatum, Solanea sterculiacea, Prunus pygeoides, Phoebe wightii, Ocotea lancifolia, Meliosma simplicifolia and Maytenus bailadillana.

### ECONOMIC VALUES OF MEDICINAL PLANTS USED BY SANTHALS

Local medicinal plants collected by the Santhal community also have economic value. They collect medicinal plants like *Andrographis paniculata*, *Asparagus racemosus*, *Cissampelos pareira*, *Centella asiatica*, *Myena spinosa*, *Antidesma bunius*, *Syzyzium cumini*, *Schleichera oleosa* and *Diospyros melanoxylon* and used to sell them in local markets. Sometimes, they also collect seeds of *Bauhinia vahlii*, and their stem bark to sell in tribal weekly markets.

### CONCLUSIONS

The Santhal community has sound traditional therapeutic knowledge on plants and their food, medicinal and economic uses. In present study, 120 medicinal, 34 nutraceutical and 10 economically important plants are presented, commonly used by Santhal community, highlighting the importance of providing food, medicines and livelihood. These plants can be used for value addition for sustainable development and conservation of plants for the bioresources of the study areas.

#### **CONFLICTS OF INTEREST**

The authors declare no conflict of interest.

#### REFERENCES

- Abdallah, E. M., Alhatlani, B. Y., Menezes, R. P. and Martins, C. H. G. (2023). Back to nature: medicinal plants as promising sources for antibacterial drugs in the post-antibiotic era. *Plants* **12**: 3077. https://doi.org/10.3390/plants12173077.
- Adedeji, W. A. (2016). The treasure called antibiotics. *Ann. lb. Postgrad. Med.* **14**: 56–57.
- Ahmad, A., Ahmad, N., Anis, M., Faisal, M., Alatar, A. A., Abdel-Salam, E. M., Meena, R. P. and Sivanesan, I. (2022). Biotechnological advances in pharmacognosy and in vitro manipulation of *Pterocarpus marsupium* Roxb. *Plants* 11: 247. https://doi.org/10.3390/plants11030247.
- Ahmad, S., Garg, M., Ali, M., Singh, M., Athar, M. T. and Ansari, S. H. (2009). A phyto-pharmacological overview on *Adhatoda zeylanica* Medic. Syn. *A. vasica* (Linn.) Nees. *Nat. Prod. Radiance* 8: 549–554.
- Al Mughairbi, F., Nawaz, R., Khan, F., Hassan, A., Mahmmod, N., Ahmed, H. T., Alshamali, A., Ahmed, S. and Bashir, A. (2021). Neuroprotective effects of bhilawanol and anacardic acid during glutamate-induced neurotoxicity. *Saudi Pharm. J.* 29: 1043–1049. https://doi.org/10.1016/j.jsps.2021.07.011.
- Al Rashid, M. H., Majumder, S., Mandal, V., Mandal, S. C. and Thandavarayan, R. A. (2018). In search of suitable extraction technique for large scale commercial production of bioactive fraction for the treatment of diabetes: the case *Diospyros melanoxylon* Roxb. *J. Trad. Comp. Med.* **9**: 106–118. https://doi.org/10.1016/j.jtcme.2017.11.003.
- Alzohairy, M. A. (2016). Therapeutics role of Azadirachta indica (neem) and their active constituents in diseases prevention and treatment. Evid. Based Complement. Alternat. Med. 2016: 7382506. https://doi.org/10.1155/2016/7382506.
- Ashokkumar, K., Murugan, M., Dhanya, M. K., Pandian, A. and Warkentin, T. D. (2021). Phytochemistry and therapeutic potential of black pepper [*Piper nigrum* (L.)] essential oil and piperine: A review. *Clin. Phytosci.* 7: 52. https://doi.org/10.1186/s40816-021-00292-2.
- Bhat, M. J., Al-Qahtani, M., Badawi, A. S., Asiri, G. B., Alhmare, A. M., Rashid, A., Altalhiyyah, K. S. and Alwimny, A. A. (2023). Awareness and knowledge of antibiotic resistance and risks of self-medication with antibiotics among the Aseer region population, Saudi Arabia, 2023. *Cureus* 15: e40762. https://doi.org/10.7759/cureus.40762.

- Bhatnagar, A. (2023). Chemical constituents of Andrographis paniculata (Burm. F) Nees: A review. Int. J. Pharm. Sci. Res. 14: 3238–3245.
- Carsono, N., Tumilaar, S. G., Kurnia, D., Latipudin, D. and Satari, M. H. (2022). A review of bioactive compounds and antioxidant activity properties of *Piper* species. *Molecules* **27**: 6774. https://doi.org/10.3390/molecules27196774.
- Chamariya, R., Raheja, R., Suvarna, V. and Bhandare, R. (2022). A critical review on phytopharmacology, spectral and computational analysis of phytoconstituents from *Streblus asper* Lour. *Phytomed. Plus.* 2: 100177. https://doi.org/10.1016/j.phyplu.2021.100177.
- Chaware, G. K., Kumar, V., Kumar, S. and Kumar, P. (2020). Bioactive compounds, pharmacological activity and food application of *Ficus racemosa*: a critical review. *Int. J. Fruit Sci.* 20: S969–S986. https://doi.org/10.1080/15538362.2020.1774467.
- Cornaglia, G., Hryniewicz, W., Jarlier, V., Kahlmeter, G., Mittermayer, H., Stratchounski, L. and Baquero, F. (2004). European recommendations for antimicrobial resistance surveillance. *Clin. Microbiol. Infect.* **10**: 349– 383.
- Darshini, M. D., Sreelakshmi, M. S., Adithya, J., Aryaputhri, N. S., Lakshmi, P. K. and Nath, L. R. (2024). A systematic analysis of the ethnopharmacological relevance of an Indian traditional plant, *Hemidesmus indicus* (L.) R.Br. for the past 10 years. *J. Appl. Pharm. Sci.* 14: 37-44. https://doi.org/10.7324/JAPS.2024.159652.
- Das, A. (2018). Ethnobotanical uses of wild fruits of Santal Parganas (Jharkhand). Int. J. Minor Fruits, Med. and Arom. Plants 4: 31-38.
- Das, S. N., Patro, V. J. and Dinda, S. C. (2012). A review: ethnobotanical survey of genus *Leucas*. *Phcog Rev.* **6**: 100–106. https://doi.org/10.4103/0973-7847.99943.
- Duraipandiyan, V., Ayyanar, M. and Ignacimuthu, S. (2006). Antimicrobial activity of some ethnomedicinal plants used by Paliyar tribe from Tamil Nadu, India. BMC Complement. Altern. Med. 6: 35. https://doi.org/10.1186/1472-6882-6-35.
- Dutta, S. and Sinha, S. (2022). Territorial identity and boundary negotiations among santhals. *Environ. Plann. C: Politics Space.* **41**: 199–217. https://doi.org/10.1177/23996544221124963.
- Ganesh, B., Rajakumar, T., Acharya, S. K., Vasumathy, S., Sowmya, S. and Kaur, H. (2021). Particularly vulnerable tribal groups of Tamil Nadu, India: A sociocultural anthropological review. *Indian J. Public Health.* 65: 403–409.
- Garg, G., Bharadwaj, S., Chaudhary, S. and Gupta, V. (2024). Chemical profiling of bioactive compounds in the methanolic extract of wild leaf and callus of *Vitex negundo* using gas chromatography-mass spectrometry. *World J. Exp. Med.* **14**: 88064. https://doi.org/10.5493/wjem.v14.i1.88064.
- Ghimire, K., Banerjee, J., Gupta, A. K. and Dahal, P. (2015). Phytochemical constituents and pharmacological uses of medicinal plant *Achyranthes aspera*: a review. *World J. Pharm. Res.* 4: 470–489.
- Goel, A. K., Sahoo, A. K. and Mudgal, V. (1984). A contribution to the ethnobotany of Santal Pargana. (pp. 1–37). Department of Environment, Botanical Survey of India. Howrah: Government of India.
- Gupta, M., Kappor, B., Gupta, R. and Singh, N. (2021). Plants and phytochemicals for treatment of peptic ulcer: An overview. *S. Afr. J. Bot.* **138**: 105–114. https://doi.org/10.1016/j.sajb.2020.11.030.

- Hembrom, S. K. and Kumar, J. (2017). Ethnomedicinal plant of santhal communities at some villages of Sahibganj district in Jharkhand, India. *Biospectra* 12: 45–50.
- Hembrom, S. K. and Kumar, J. (2018). Ethnomedicinal plants used in the villages of Rajmahal hills of district Sahibganj by santhal tribes. *Biospectra* 13: 71–76.
- Hiradeve, S. M. and Rangari, V. D. (2014). *Elephantopus scaber* Linn.: a review on its ethnomedical, phytochemical and pharmacological profile. *J. Appl. Biomed.* **12**: 49– 61. https://dx.doi.org/10.1016/j.jab.2014.01.008.
- Ignacimuthu, S., Ayyanar, M. and Sivaraman, K. S. (2006). Ethnobotanical investigations among tribes in Madurai District of Tamil Nadu (India). J. Ethnobiol. Ethnomed. 2: 25. https://doi.org/10.1186/1746-4269-2-25.
- Iyer, S. R. (1992). Ethnobotany of certain medicinal plants used by tribals of India against skin infections. *Anc. Sci. Life.* 11: 143–152.
- Jagtap, S. D., Deokule, S. S. and Bhosle, S. V. (2006). Some unique ethnomedicinal uses of plants used by the Korku tribe of Amravati district of Maharashtra, India. *J. Ethnopharmacol.* **107**: 463–469.
- Joshi, B. R., Hakim, M. M. and Patel, I. C. (2023). The biological active compounds and biological activities of *Desmodium* species from Indian region: A review. *Beni-Suef Univ. J. Basic Appl. Sci.* **12**: 1. https://doi.org/10.1186/s43088-022-00339-4.
- Kumar, S. G., Adithan, C., Harish, B. N., Sujatha, S., Roy, G. and Malini, A. (2013). Antimicrobial resistance in India: a review. J. Nat. Sci. Biol. Med. 4: 286–291.
- Kumari, R., Rathi, B., Rani, A. and Bhatnagar, S. (2013). *Rauvolfia serpentina* L. Benth. ex Kurz.: phytochemical, pharmacological and therapeutic aspects. *Int. J. Pharm. Sci. Rev. Res.* 23: 348–355.
- Kumar, S., Mishra, S., Mishra, A.K. and Kumar, S.N. (2022). Floral diversity of Koira & Barsuan ranges of Bonai Forest Division, Odisha. Bonai Forest Division & Ambika Prasad Research Foundation, Odisha, India.
- Laldingliani, T. B. C., Thangjam, N. M., Zomuanawma, R., Bawitlung, L., Pal, A. and Kumar, A. (2022). Ethnomedicinal study of medicinal plants used by Mizo tribes in Champhai district of Mizoram, India. J. Ethnobiol. Ethnomed. 18: 22. https://doi.org/10.1186/s13002-022-00520-0.
- Lerma-Herrera, M. A., Beiza-Granados, L., Ochoa-Zarzosa, A., Lopez-Meza, J. E., Navarro-Santos, P., Herrera-Bucio, R., Avina-Verduzco, J. and Garcia-Gutierrez, H. A. (2022). Biological activities of organic extracts of the genus *Aristolochia*: A review from 2005 to 2021. *Molecules* **27**: 3937. https://doi.org/10.3390/molecules27123937.
- Lobanovska, M. and Pilla, G. (2017). Penicillin's discovery and antibiotic resistance: Lessons for the future? *Yale J. Biol. Med.* **90**: 135–145.
- Malek, A., Mostafa, K., Rahman, S. and Hossain, S. (2024). Evaluation of antimicrobial, thrombolytic and cytotoxic activities of ethanol flower extract of *Bauhinia acuminata. Int. J. Basic Clin. Pharmacol.* 13: 191–197.
- Mandal, A., Adhikary, T., Chakraborty, D., Roy, P., Saha, J., Barman, A. and Saha, P. (2020). Ethnomedicinal uses of plants by Santal tribe of Alipurduar district, West Bengal, India. *Ind. J. Sci. Technol.* **13**: 2021–2029. https://doi.org/10.17485/IJST/v13i20.565.
- Micoli, F., Bagnoli, F., Rappuoli, R. and Serruto, D. (2021). The role of vaccines in combatting antimicrobial

resistance. *Nat. Rev. Microbiol.* **19**: 287–302. https://doi.org/10.1038/s41579-020-00506-3.

- Mir, T.A., Jan, M., Jan, H. A., Bussmann, R. W., Sisto, F. and Fadlalla, I. M. T. (2022). A Cross-Cultural Analysis of Medicinal Plant Utilization among the Four Ethnic Communities in Northern Regions of Jammu and Kashmir, India. *Biology* **11**: 1578. https://doi.org/10.3390/biology11111578.
- Muteeb, G., Rehman, M. T., Shahwan, M. and Aatif, M. (2023).
  Origin of antibiotics and antibiotic resistance, and their impacts on drug development: a narrative review.
  *Pharm.* 16: 1615.
  https://doi.org/10.3390/ph16111615.
- Nandy, S., Mukherjee, A., Pandey, D. K., Ray, P. and Dey, A. (2020). Indian sarsaparilla (*Hemidesmus indicus*): recent progress in research on ethnobotany, phytochemistry and pharmacology. J. Ethnopharmacol. **254**: 112609. https://doi.org/10.1016/j.jep.2020.112609.
- Narain, J.P. (2022). India at 75: transforming the health of tribal populations through evidence-based policymaking. *Indian J. Med. Res.* **156**: 174–178. https://doi.org/10.4103/ijmr.ijmr\_1988\_22.
- Narasimhaji, C. V., Kumar, V., Shanumugam, M., Singh, R., Singh, A., Marimuthu, G., Raju, I., Srikanth, N. and Acharya, R. (2023). *Justicia adhatoda* L. vasicin and vasicinone as bioactive phytochemical compounds: isolation, characterization, and computational studies. *Results Chem.* 6: 101127. https://doi.org/10.1016/j.rechem.2023.101127.
- Negi, J. S., Singh, P., Joshi, G. P., Rawat, M. S. and Bisht, V. K. (2010). Chemical constituents of *Asparagus. Phcog. Rev.* 4: 215–220. https://doi.org/10.4103/0973-7847.70921.
- Panara, K., Singh, P. K., Rawat, P., Kumar, V., Maruf, M., Patel, K., Ravikumar, R. K. and Kumar, V. (2016). Importance of *Alangium salviifolium* and its pharmacological update. *Eur. J. Med. Plants.* 12: 1–15.
- Pandey, A., Kaur, H., Karra, V. K., Mutatkar, R. K. and Khan, A. M. (2022). Assessing engagement of scheduled tribe communities in the functioning of Village Health Sanitation & Nutrition Committees in India. *Ind. J. Med. Res.* 156: 312–318. https://doi.org/10.4103/ijmr.ijmr\_3344\_21.
- Prestinaci, F., Pezzotti, P. and Pantosti, A. (2015). Antimicrobial resistance: a global multifaceted phenomenon. *Pathog. Glob. Health.* **109**: 309–318. https://doi.org/10.1179/2047773215Y.0000000030.
- Ralte, L., Sailo, H. and Singh, Y. T. (2024). Ethnobotanical study of medicinal plants used by the indigenous community of the western region of Mizoram, India. *J. Ethnobiol. Ethnomed.* 20: 2. https://doi.org/10.1186/s13002-023-00642-z.
- Salam, M. A., Al-Amin, M. Y., Salam, M. T., Pawar, J. S., Akhter, N., Rabaan, A. A. and Alqumber, A. A. (2023). Antimicrobial resistance: a growing serious threat for global public health. *Healthcare* **11**: 1946. https://doi.org/10.3390/ healthcare11131946.
- Salleh, N. N. H. N., Othman, F. A., Kamarudin, N. A. and Tan, S. C. (2020). The biological activities and therapeutic potentials of baicalein extracted from *Oroxylum indicum*: a systematic review. *Molecules* 25: 5677. https://doi.org/10.3390/molecules25235677.
- Shrivastava, S. R., Shrivastava, P. S. and Ramasamy, J. (2015). Mainstreaming of Ayurveda, Yoga, Naturopathy, Unani, Siddha, and Homeopathy with the health care delivery system in India. J. Tradit. Complement. Med. 5: 116–118. https://doi.org/10.1016/j.jtcme.2014.11.002.

- Singh, C. B. (2017). Rare and threatened medicinal plants of Santhal Pargana, Jharkhand. *J. Indian Bot. Soc.* **96**: 94–99.
- Soren, P. and Jamir, W. (2020). The Santhals: their culture and traditions. In: *Tripathy M. (2020). Trends in Sociology, Psychology and Anthropology.* (Volume 2, pp. 81–97). Delhi: AkiNik Publications.
- Thomas, B., Arumugam, R., Veerasamy, A. and Ramamoorthy, S. (2014). Ethnomedicinal plants used for the treatment of cuts and wounds by Kuruma tribes, Wayanadu districts of Kerala, India. *Asian Pac. J. Trop. Biomed.* **4**: S488–S491.
- Thomas, V., Nair, S. N. V., Ved, D. K. and Shankar, D. (2020). Controversial identities of medicinal plants in classical literature of Ayurveda. J. Ayurveda Integr. Med. 11: 565–572.
- Wang, J., Li, P., Li, B., Guo, Z., Kennelly, E. J. and Long, C. (2014). Bioactivities of compounds from *Elephantopus* scaber, an ethnomedicinal plant from Southwest China. *Evid. Based Complement. Alternat. Med.* 2014: 569594. https://doi.org/10.1155/2014/569594.
- Wanjohi, B. K., Sudoi, V., Njenga, E. W. and Kipkore. (2020). An ethnobotanical study of traditional knowledge and uses of medicinal wild plants among the Marakwet Community of Kenya. *Evid. Based Complement. Alternat. Med.* **2020**: 3208634. https://doi.org/10.1155/2020/3208634.