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FINAL PROJECT REPORT

OF

MINOR RESEARCH PROJECT

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"CONSERVATION OF INDIGENOUS MEDICINAL PLANTS AND THEIR TRADITIONAL KNOWLEDGE FOUND IN BEED DISTRICT"

INTRODUCTION

India is one of the diverse countries in the world, rich in medicinal plants. From time immemorial scholars like charka, Barathwaj, Athreyan, Agnivesha, Dhanyandhari, Shushruthan, Wakbadan and Bharathduja etc. have studied and explored the possibility such a diversity for human welfare and the most conspicuous exploration in this fields has lead to the discovery of so many indigenous medicinal plants that were scripted mainly in Vedas (1500BC) that contain rich materials on herbal lore of that time. Charaka in his medical treaty. '*Charaka samhita*' (1000-800BC) delt with innumerable medicinal plants, their usage and description. Besides the two above said text, treatise like *Sushruth Samhita* (800BC-700BC) and *Ashtangha hridaya* Samhita are a few among other precious ancient texts. Thus the gradual accumulations of practical and systematic medicinal knowledge lead to the formation of Ayurveda.

Ayurveda-the science of life, prevention and longevity, is the oldest and most holistic of comprehensive medical system available. It was placed in written form over 2000 years ago. Ayurveda is said to have been first complied as a text by charaka and renamed as *Charaka Samhita* (completed by Dhridhabala). The concept of medicines envisaged in the Ayurveda comes from the monumental scripture called *Ashtanga hridaya* and *Sahasrayoga*, Gayatri R. (2008).

Medicinal plants by definition are used in health care many of the world population cannot afford medicine, which are main plant based. In India, the main traditional systems of medicine include Ayurveda, Unani and siddha use over 7,500 plant species have been reported. Traditional healers provide considerable information about the use of many plants or plant parts as medicine. It has been estimated by the world's health organization (2003) that 80% population of the developing countries is unable to afford pharmaceutical drugs and relies on traditional medicine to meet their daily health requirements. Although there are many potent and specific drugs available today for the treatment of different diseases there is a public swing to herbal medicine in our country. Plants are logical sources for new drugs discovery and currently many thousands are being screened for biological activities in order to develop from plant species and future demands should be met from cultivated sustainable species.

The present work refers to an exploration of medicinal plants utilized by local rural and some tribal of Beed district with future vision of bio-prospecting some of this information but with also providing a definite share to those who contributed to this knowledge.

Beed one of the seven districts of Marathwada region of Maharashtra state, Lies between 18.27^0 to 19.27^0 Latitude and 74.29^0 to 76.44^0 E longitude an average height of about 600m above mean sea level. Cover an area of 10727 sq. km. on the Deccan plateau and is centrally placed in the region. It demarcates boundaries between Parbhani, Osmanabad and Ahmednagar districts. Prior to independence, Beed was a part of the erstwhile Hyderabad State. It was included in the State of Maharashtra in 1960.

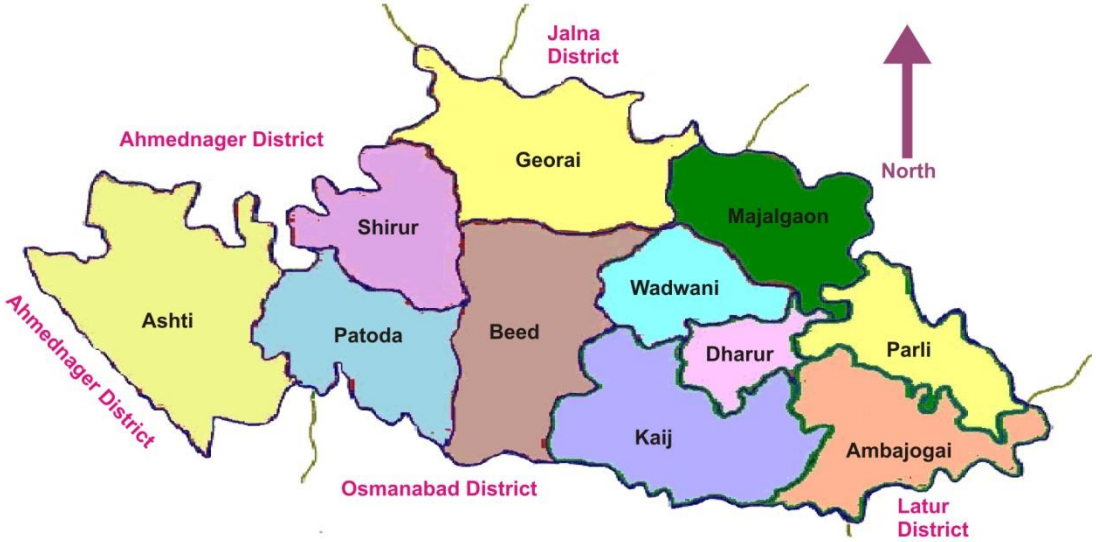
Topographically, the district may be divided into 1. Northern part a consisting of plains of Godavari valley. 2. Southern and Southwestern part consisting of hilly area Balaghat range. Out of the total area of 10727 sq. km. of the entire district over 1440 sq. km. (about 13.4 %) are occupied by forest and these are restricted to the southern and south western hilly area. Most of the area and Northern plains and Godavari valley is converted into an agricultural land.

Climate and rainfall: In general the climate of the district is dry and moderately extreme. The hottest month of the year is May and the coldest months are December and January. Maximum temperature of nearly 42^0C is reached during summer day, while it falls to lower than 13^0C at midnight during winter. The relative humidity is extremely low for major part of the year. Between 35 to 45 % while it is highest (80 to 85%) during the monsoon.

The rainy season is considered from the middle of June and lasts up to the end of September. Since the Deccan plateau itself falls in the rain shadow belt of the Sahyadris, the district receives only about 765mm average annual rainfall.

The whole district provides picturesque view of the nature. Some of the worth visiting sites are: Peacock sanctuary at Naigaon, Mahadeo Dara forest, Deolali Forest, Bendusara Dam at Beed, Sautada Waterfall, Khajana Bawadi, Dharur Fort, Rameswhar Temple, Kapil Dhar Water Fall, Kapil Dhar Temple, Khadeshwari Mata, Shaheshawali Dargah and Shri Vaidyanath Madir Parali etc.

1. Fig. 2. Map of Beed District



MATERIAL AND METHOD

The work was initiated in December 2010 and continued up to December 2012 This site selected to carry out research work on indigenous medicinal plants Beed district.

A comprehensive review of the relevant literature has been conducted. It has included the subject matter as well as regional studies. All the material thus collected was properly processed and finely made in herbarium specimen which are deposited in the herbarium (Dept. of Botany A. D. College). Collection of medicinal plant saplings, fruit and seeds. Some medicinal plant cultivated in the college botanical garden along with their information for the use of B. Sc. Students, Research student and local people.

Field survey

The survey of medicinal plants was done by frequently arranged collection tours to various localities in different seasons. In two years frequent visit, where made in order to cover different locality in Beed district . Time of collection tour old knowledgeable people was interviewed for information of their medicinal values and utilization of the plants products by the local community. The study trips were arranged from December 2010 to December 2012. The field work was totally based on interview, observation and guided field walk during field work. The relevant field notes were written on the spots where possible.

Observation

In order to study field condition, keen observations have been made during the walk in the upland during growth period. In the meantime all the voucher specimens have been collected during flowering stage, pressed and preserved.

Eco- geographical survey

In collaboration with forest department of survey has been conducted for identification of representative's areas with significant species diversity of medicinal plants and associated vegetation for investigation of traditional knowledge about indigenous medicinal plants conservation trials and establishment of conservation cum protected areas in tropical rest ecosystem.

Survey of Indigenous knowledge

Interviews have been conducted with the local inhabitants, selected informant, the herbalist and the local authorities and societies about 10 informant have been interviewed on random basis. A questionnaire has been adopted during the survey; in a way to get quantitative and particularly approach about the status of indigenous medicinal plants and their utilization by the people.

Market survey

Economic and commercial value of the indigenous medicinal plants utilized in the study area has been tested in the market survey. In this regard a questionnaire has been adopted to interview the local plant collectors, medicinal plant sellers in the local market. Regarding quantitative approach questionnaire has been asked about the quantity of plant resources, uses, rate, of sale, consumption, availability, economic and market value etc.

Result discussion

85 Species, 74 genera belong to 48 families recorded with their botanical name, family, local name and traditional uses. The specific focus of project is on sources and conservation of medicinal plants that it is an integral part of an environmental management and socio-economic development plan. Some medicinal plants conserved and studies of propagation of medicinal plant species through seed, vegetative organ stubbles etc. (Ex-situ conservation). Work is compared to earlier workers who worked on traditional knowledge about indigenous medicinal plants. Nambiar Gayatri (2008), Patil D. R.(2011), Kachare (2010), Khyade M. S.(2010), Suravase S.A. (2011), Kala (2005), Arshad Mehmood (2009), Dey Abhijit (2010), Shisode S. B.(1993), Aher R. K. (2004), Kar (2008), Ghorband (2011).

The main threats to the conservation of medicinal plants in the area are unsustainable harvesting by the local people, illegal collection inside the forest area, grazing in high pastures, collection of premature plants and collection of whole underground parts.

Scientific studies may elaborate the prospects of growing more and more medicinal plants successively. By order proper management of medicinal plants remarkable improvement may be made on the earning of foreign exchange for the country.

Considerable amount of information on the traditional uses of plants appears available with the people of the Beed district. It is feared that due to ready availability of medicine in modern period, knowledge of traditional medicinal plants may be lost in course, senior villagers expressed their fear as the coming generations ignore their knowledge and experience. This is a discoursing situation.

Therefore, there is an urgent need for ethno botanist to direct their efforts immediately to gather all information, besides the medicinal plants, about the native unconventional food plants, drink, dyes, and poisonous plants.

1. ***Abrus precatorious*** **Linn**

Family-Fabaceae

Common name- Gunj

A very common twining plants with woody stem and slender herbaceous branches; young parts sparsely hairy. Leaves pinnately compound. Leaflet 10-20 pairs, opposite, oblong rounded at the both ends, apiculate. Flower crowded in many-flowered racemes shorter than the leaves .Calyx shortly toothed. Petals pink or white with pinkish tinge. Pods oblong, truncate with sharp, deflexed beak. Seeds globose red or white, with or without a black spot, shining.

Flowers and Fruits- September to December

Uses- Roots are used as substitute for liquorice. Leaves are eaten in the morning and evening till cured for cough and sore throat.

2. ***Acacia catechu*** **(Roxb. Ex Rottl.) Willd.**

Family-Mimosaceae

Common name - Khair, Kattha, Kaat.

Small tree; bark dark-brown; young parts with dense spreading hairs; often purplish. Rachis white –villous with glands between many of the pairs of pinnae and a large gland near the middle of the petiole; stipular spines hooked; pinnae 20-30 pairs. Flower sessile axillary spikes; rachis white pubescent. Calyx campanulate. Corolla dull white; lobes oblong. Stamens much exerted. Pods stalked, flat, thin, brown, tapering at both ends, glabrous. Seeds 3-10, compressed.

Flower and fruits- June to October.

Uses- Used against the throat infections cough, diarrhoea, chronic laceration, and eruptions of the skin and wounds, bark is dried and powdered fine is sprinkled on the wounds morning and evening till cured. Decoction of the bark given in painful menstruation, one cup decoction is taken thrice a day for one or two days. It is also useful in treating anaemia, diabetes, inflammations and intermittent fever.

3. ***Achyranthes aspera*** **Linn**

Family-Amaranthaceae

Common name-Aghada

Erect herbs, stem stiff; branches obtusely 4- angled, striate pubescent. Leaves ovate or broadly elliptic. Flowers numerous, on long pubescent rachis of elongating terminal spike, persistent,

bracteoles similar to bracts; tepals sub equal, ovate-oblong wit narrow scarious pseudo-staminodes. Fruit oblong cylindric.

Flower and fruit August to January.

Uses- One pinch of roasted seeds powder is mixed with water or breast milk and given thrice a day for three days for cough in infants. It is used against snake bite, scorpion sting, opthalmia, skin diseases and kidney stones. Leaves and stem juice is given in diarrhoea and dysentery.

4. ***Adhatoda vasica*** **Nees**

Family-Acanthaceae

Common name-Adulsa

Large shrubs, branches many, ascending. Leaves opposite. Flower in short, dense, axillary, pedunculate spike peduncles long, stout; bracts elliptic; bracteoles oblong-lanceolate. Calyx divided near to the base. Corolla white with pinkish tinge in the throat, pubescent outside; narrowed at base; limb 2 lipped; lobes ovate. Fruit capsule clavate, shortly bluntly pointed. Seeds orbicular-oblong, glabrous.

Flower and fruits- August to December.

Uses- Leaves powder treating in cough, jaundice and respiratory problems, dried leaf powder fill these in a bidi-leaf or pipe and puff smoke 2 to 3 pipes a day for asthma attack.

5. ***Aegle marmelos*** **(L.) Corr.**

Family-Rutaceae

Common name-Bel

Tall tree . Leaves usually 3-foliate rarely 2 or 5 foliate. Flower hermaphrodite greenish- white, scented, in axillary, short panicles. Sepals united form short, 4-5 lobed calyx; lobes rounded. Petals 4, distinct greenish white, oblong 10-12 mm long. Stamens numerous. Ovary ovoid- oblong; disk elevated. Fruits globose, 5-10 cm in, rind yellow green.

Flower and fruits- April to September.

Uses-Leaf juice are taken for intestinal worms, leaves juice put into the ear in the morning and in the evening the ear is cleaned, cured for Pus oozing from ear. Extract is applied externally in abscess. Roots and bark used to treat intermittent fevers and palpitation of the heart. Fruit pulp is nutritious and prevents heat stroke. Pulp of fruit is given in intestinal affections, unripe fruits is given in dysentry.

6. ***Albizzia lebbeck*** **(L.) Willd.**

Family-Mimosaceae

Common name- Shirish

Unarmed deciduous trees bark pale yellow; Main rachis glabrescent, with a large gland above the base of the petiole and another below the uppermost pair of pinnae. Leaflets 5-9 pairs, elliptic-oblong. Flower fragrant, in globose umbellate heads, solitary or 2-4 together. Calyx pubescent; teeth short. Corolla dull white, 8-10 mm long, tube glabrous. Stamens much longer than the corolla; filaments connate at base. Pods oblong, flat thin, straw coloured. Seeds 5-10. Flower and fruits- March to August.

Uses-Dried bark powder is used for curing gum infection (toothache). Also a decoction of leaves is given orally as a supplementary remedy.

7. ***Allium cepa*** **Linn**

Family-Alliaceae

Common name-Kanda, Piaz

Perennial herbs; bulbs globose, 5-10 cm in diam. Leaves subdistichous, acute glaucous-green. Flowers numerous in globose umbels. Scapes tetere, fistular, bracts spathaceous, membranous, ovate-lanceolate, pedicels slender, . Perianth. Ovary trigonous, style short, Capsules globose-trigonous. Seeds angular, black, shining.

Flowers and fruits- February to march (Throughout year)

Uses- Juice of bulb is useful in cough, cold and fever. Bulbs are cut fine and applied twice a day for 4 days for skin diseases.

8. ***Allium sativum*** **Linn.**

Family-Alliaceae

Common name- Lasun

Perennial herbs; bulbs with membranous outer scales in the axils of which there are 10-12 fleshy scales. Leaves linear. Flowers in globose umbels at the ends of slender, scapes. Bracts spathaceous, membranous, broadly ovate. Perianth white or tinged with pink; lobes distinct, linear-oblong. Stamens 6, shorter than the perianth. Ovary ovoid. Capsules oblong-ovoid, membranous. Seeds many black, angular.

Flower and Fruit- January to February.

Uses – 3-4 flakes are put into a cup of water which is heated one cup is taken in twice day for one week for cold, cough, and appetiser. Three flakes of garlic crushed and cooked in 2 teaspoon of till oil after cooling 2-3 drop of prepared oil dropped in each ear for one week for prevent earache pus in ear.

9. ***Alstonia scholaris*** **R.Br.**

Family-Apocynaceae

Common name- Saptaparna, Satvin.

Large evergreen trees; branches whorled. Flowers in compact, umbellately branched, pubescent, panicled cymes; bracts leafy; bracteoles minute. Calyx pubescent; teeth oblong. Corolla greenish-white, pubescent outside; lobes ovate-obtuse, spreading. Ovaries distinct. Fruit follicles slender, terete, pendulous. Seeds oblong, flattened, with tuft of brown hairs at either end.

Flower and Fruit –February to June.

Uses-The bark are regarded as a bitter tonic and a mild febrifuge and possess astringent and anthelminitic properties. The bark is applied to treat the ear for deafness. Bark is used to stop bleeding of wounds. It is reported to be employed in heart diseases, asthma, chronic and diarrhea.

10. ***Amaranthus viridis*** **Linn**

Family-Amaranthaceae

Common name- Math

Erect or diffuse annual herbs; stem striated, glabrous or thinly pubescent. Leaves ovate, glabrous or sparsely pubescent on nerves beneath. Flower in axillary clusters and terminal spikes or panicles. Bracts and bracteoles ovate, minutely mucronate. Tepals oblong-linear or oblong-spathulate, shortly mucronate. Stamens as long as the tepals. Ovary oblong with 2-3 stigmas. Fruit ovoid, shortly beaked, strongly rugose, bursting irregularly. Seeds subtrigonous. Black smooth, shining.

Flower and Fruits- August to December.

Uses- The leaves (fresh or dried powder) are used for in to treat inflammation boils and abscess.

11. ***Asparagus recemosa*** **Willd**

Family-Liliaceae

Common name- Shatawari

Extensive scandent, undershrubs; root tuberous; branches angular. Leaves reduced to spine linear-subulate, conical at base, straight or curved. Cladodes slender, spinous pointed. Flower fragrant, in simple, axillary racemes; rachis triquetrous, crowned with tuft of cladodes. Perianth white; segment distinct, linear oblong, obtuse. Style short; stigmas spreading. Fruits fleshy, globose, red. Seeds usually solitary.

Flower and fruit- June to November

Uses- Tuberous root the fresh juice taken in small dose acts medicinally as the diuretic and laxative and reduced breast milk, weakness and vomiting. It is also a good source of potassium, which helps in muscle recovery and prevents cramping. They are useful in the nervous disorder, scalding of urine, throat infections, cough, and bronchitis. It is also used in the treatment of the rheumatism. The root of the plants is used in treatment of diarrhea and dysentery.

12. ***Azardirachta indica*** **A. Juss**

Family-Meliaceae

Common name-Kadu limb, Neem

Large tree, Leaves pinnately compound, Leaflet 9-13, sub opposite. Flower mildly fragrant, in axillary panicles. Calyx almost distinct round-ovate, minute. Petals white. Staminal tube glabrous, shorter than the petals, toothed at apex, anther 10, opposite to the teeth. Ovary 3-5 locular, stigma trilobed. Fruit Drupes ellipsoid, 1-seeded.

Flower and fruits- February to May.

Uses- Flowers are used to cure intestinal problems. Neem bark acts as an analgesic and can cure high fever as of malaria. Leaves are used to cure skin diseases.

13. ***Baccopa monnieri*** **(L.) Wettst.**

Family-Scorpularaceae

Common name-Neerbrahmi

Small creeping herb with numerous branches. It grows to a height of 2-3 feet and its branches are 10-35 cm long. Leaves simple oval shaped. Leaves formed in pairs along the stem. Flower white purple in colour. The fruits are oval and sharp.

Flowering and fruit- October to February

Uses- Leaves are heated and rubbed on chest for cough. It is valued in medicine as a tonic. The plant is considered as blood purifier.

14. ***Balanites aegyptica*** **(L.) Del.**

Family- Balanitaceae

Common name-Hingan Bet

Small trees; young parts pubescent to tomentose; branches armed with straight, sharp thorn. Leaves 2 foliate; leaflets elliptic to obovate. Flowers in short, axillary, pubescent cymes, fragrant.

Sepals distinct, ovate 3 mm long, pubescent outside, silky within. Petals dull white or greenish, oblong-obovate, silky villous; style short. Drupes ovoid or ellipsoid, 5-angled, yellowish. Seed ovoid.

Flowers and fruits-February to November.

Uses- Oil obtained from kernels is applied to burns and sores. It considered useful for hair growth and in diseases of the skin. Considered useful in whooping, cough, blood eruptions and as a rubifacient in skin diseases. The juice of fresh fruit serve as an efficient shampoo for hair.

15. *Bombax ceiba* Linn.

Family-Bombaceae

Common name-Kate sawar

Deciduous tree, 10-30m tall, bark grey, glabrous, prickles conical, black. Leaves crowded at the ends of branches, digitate; leaflets 5-7. Flower sessile, crowded at the ends of branches. Calyx often 3-lobed, corolla bright red, tomentose outside. Stamens about half as long as the corolla. Ovary conical longer than the stamens. Capsules woody, ellipsoid valved, thinly white silky. Seeds ovoid embedded in white silky cotton.

Flowers and fruits -February to June.

uses-Dry thorns are ground fine and then strained through a muslin cloth. The powder mixed with milk and the paste applied on the pimples. Flower are used in irregular menstruation, flower crushed and eaten one flower in the morning and evening for seven days.

16. *Boswellia serrata* Roxb.

Family-Burseraceae

Common name- Salai

Middle sized tree with papery ash coloured bark. Leaves odd pinnate, leaflets 8-15 pairs; opposite, subsessile. Flower axillary racemes shorter than leaves. Calyx pubescent outside; lobes broadly triangular. Petals dull or greenish white, ovate 5 mm long, pubescent outside. Stamens inserted at base of red, annular crenate disk. Ovary ovoid, sunk into the disk; style long. Fruit drupes trigonous ovoid, pale green compressed, heart shaped.

Flower and fruits- February to June.

Uses- The gum exudate posesses anti-arthritic activity. Used in the treatment of ulcers, piles, skin diseases convulsions, bronchitis, asthma, cough, jaundice, diarrhoea, dysentry and rheumatism..

17. *Butea monosperma* (Lam) Taub

Family-Fabaceae

Common name-Palas

Deciduous tree; bark ash coloured, cracked; branches irregular; young part tomentose. Leaves 3 foliate; petioles long, swollen at base. Leaflets obovate-rhomboid. Flower large, in dense rigid racemes. Corolla orange coloured. Clothed outside with silvery hairs. Pods stalked, oblong, 1-seeded, reticulately veined, silvery-tomentose.

Flower and fruits- February to April.

Uses- Decoction of stem bark is taken orally for cough and cold. The bark is used to treat diarrhoea, dysentry, intestinal worms, bone fractures, ulcers and diabetes. Seeds and gums are useful in infestations and in the treatment of ringworm. Flowers are used to treat skin diseases, dried flowers are put in water for half an hour. This water is used for bath once a day for seven to 20 days. Flower are heated and applied on swelling.

18. *Calotropis procera* (L) R. Br.

Family-Asclepiadaceae

Common name-Rui, Ruchki.

A large shrub 6-6 feet high. Leaves opposite, sessile or shortly petioled, subcoriaceous. Inflorescence covered with white wooly tomentum. Flower in lateral umbellate cymes. Sepals ovate, acute pubescent, Corolla lobe ovate, acute. Corona truncate, with a recurved spur at base and without auricles at apex. Fruit follicles, cottony pubescent. Seeds ovoid, compressed, brown, coma silky white.

Flower and Fruit- Throughout year but fruit –January to June.

Uses- Leaves warm, crush them obtained juice one or two drops in each ear for Ear-ache. A piece of root is rubbed on a stone with few drops of water and the paste is applied on the abscess. The bark of the root and the inspissated milky juice are used the treatment of leprosy, rheumatism, tape worm, ulcers and intermittent fevers.

19. *Carissa carandas* Linn

Family-Apocynaceae

Common name-Karavand

Large glabrous shrubs 3-4m tall branches 2-3 chotomous; thorn strong, divaricate. Leaves opposite, Flower in lax, terminal, peduncled cymes. Calyx puberulous; teeth ovate to ovate-lanceolate. Corolla white; tube swollen and pubescent in the upper half; lobes narrow-oblong. Berries ellipsoid, 4-8 seeded.

Flowers and Fruits. March to July.

Uses- Fruit is used in diabetes.

20. *Caryota urens* Linn

Family-Palmae

Trees, 10-12m tall; trunk stout. Leaves bipinnatisect. Flower greenish. Slender, drooping spadices forming a bunch subtended , tubular 40-50 cm long spathes. Male flower 1.1.5 cm long; perianth segments orbicular to linear oblong. Stamens many; filaments short. Female flower in between the two lateral males, globose with orbicular perianth segments. Ovary globose, Fruits globose radish.

Flower and fruit- March to June

Uses - The fruit is used against head-ache.

21. *Cassia fistula* Linn

Family-Caesalpiniaceae

Common name-Bahava, Amaltas

Deciduous, moderate-sized, glabrous trees. Leaflets 4-8 pairs, coriaceous, opposite. Flower in lax, drooping racemes. Corolla bright yellow; petals subequal, obovate, shortly clawed. Stamens 10, all perfect, the 3 longest with curved filaments, the four lateral with straight short filaments and versatile, the remaining 3 much smaller. Pods cylindric straight or slightly curved black. Seeds many, oblong, dark-brown, polished.

Flower and fruits- March to May.

Uses – An extract of the root bark is used in the treatment of black fever. Flowers are useful in burning sensation, skin diseases, bronchitis and dry cough. The dried fruits have a laxative and are useful in constipation. The lump, the size of channa is put in a teaspoon of water for 5 minutes and fed to the infants in the morning for intestinal worms.

22. *Cassia tora* Linn

Family-Caesalpiniaceae

Common name-Tarota

Annual foetid undershrubs. Leaves pinnately compound; rachis grooved with conical glands between each of the 2 lowest pairs of leaflets. Leaflets three pairs. Flower in sub sessile pairs in the axils of leaves. Petals yellow subequal. Stamens 10, of which 3 upper reduced to staminodes, three longest with quadrate-oblong anthers and four lateral ones with similar but smaller anthers. Pods terete, linear glabrous, often, spreading. Seeds oblong, obliquely truncate at ends, brown, smooth.

Flower and fruits -August to November.

Uses- Leaves and seeds are used in skin diseases like ring worm. Leaves treating for reduce the swelling. Juice of leaves given in diarrhoea. Seeds are useful in asthma or skin diseases.

23. *Citrus medica* Linn.

Family-Rutaceae

Common name-Kaaghzi limbu.

Perennial shrubs young shoots with spine. Leaf compound unifoliate, gland dotted. Flower axillary, white, scented. Calyx 5 .Corolla 5 scented with gland dotted. Stamen many polyadelphous. Disc is present bellow ovary. Fruit hesperidium.

Flower and fruit- Throughout year.

Uses – Fruit juice given in vomiting. The fruit is cut and rubbed on the body at bedtime for 7 days for scabies and severe itching.

24. *Cocos nucifera* Linn

Family-Palmae

Common name- Naral, Narial

Monoecious trees, trunk thickened at base with a mass of rootlets. Leaves forming crown at apex of the trunk, pinnatisect, segment linear; petiole stout, sheathing at base. Spadices stout, panicled; spathes 60-90 cm long, hard, splitting lengthwise. Male flower unsymmetric; outer perianth segments small. Fruits fibrous drupe.

Flower and fruits- Throughout year.

Uses- Ash of coconut shell is used for cleaning the teeth and for toothache.

25. *Commiphora mukul* (Hook.ex Stock) Engl.

Family-Burseraceae

Common name- Gugal

A moderate sized thorny tree with ash colored rough bark. Leaves alternate, obovate, serrate. Leaves odd pinnate, leaflets 2-3 pairs with an odd one. Flower fascicled, sub sessile. Calyx urceolate, shortly toothed. Petals yellow or white, obovate. Stamens 8-10 disk toothed.

Flower and fruiting – March- April.

Uses- Dry Extracts (Guggul Gum) is used for treatment for obesity, Guggul is frequently used to help**.** lower cholesterol levels and decrease high blood pressure**.**

26. *Cordia dichotoma* Forst.

Family-Boraginaceae

Common name- Bhokar

Moderate sized deciduous tree, bark dark-coloured, rough, fissured; Leaves alternate, scabrous above, glabrous beneath. Flower polygamous (Male and bisexual), in large, lax terminal and axillary. Calyx glabrous outside, pubescent within; teeth 5. Corolla white, tube. Drupes globose or ovoid, pale orange coloured, pulpy sticky.

Flower and fruits- January to June.

Uses – Decoction of the bark taken in excessive menstruation. Bark of the stem at the point of fracture, the bone is first set and properly and then the length and breadth of bark needed to wrap around the limb is well stretched and firmly tied for limb fracture. This left in place for 15 days.

27. *Cucumis sativus* Linn.

Family-Cucurbitaceae

Common name-Kakadi Khira

Annual herbs; stem prostrate, hirsute; tendril slender, Leaves simple, alternate, cordate, leaves 3-5 lobed or angled; lobes triangular, hispid-villous on both surfaces. Male flower fasciculate; peduncles slender. Calyx tube narrow campanulate. Corolla yellow. Female flowers solitary of fasciculate; peduncles robust. Ovary fusiform, muricate. Fruits cylindrical or oval sized. Seeds obovoid to oblong, dull white, smooth.

Flower and fruit- Throughout year

Uses- Root and Leaves are used for kidney diseases, fever, insomnia, headache and burning sensation. Fresh fruit is cut into small pieces and is given to the patient thrice a day for a month, for cure jaundice.

28. *Cynodon dactylon* (Linn) Pers.

Family-Poaceae

Common name- Durwa, Harali.

Perennial herbs. Culms terete, widely creeping stolons, rooting at the nodes; nodes glabrous. Leaves sheaths compressed, sometimes terete, glabrous; blade flat, linear-lanceolate, acute or pungent at apex. Spike 2-8 whorled. Spikelets sessile, oblong laterally compressed. 1- Flowered, green or purple. Lower glume thinly membranous, narrowly oblong. Upper glume similar, lemma membranous, boat shaped, 3-nerved; keels and margins hispid with white hairs; apex acute. Lodicules 2, small. Stamen3, small.

Flower and Fruit- September to November.

Uses –Leaf juice is administered as an astringent in case of appendicitis.

29. *Cyperus rotundus* Linn

Family-Cyperaceae

Common name-Motha

Rather slender perennial, stolons slender, stems slender, trigonous, arising from tuberous base, Leaves sheath glabrous. stramineous or pale yellow-brown, loosely distichous; Umbel compound, or sub compound; Involucral bracts, the longer ones often much overtopping the umbels, spreading; spikes ovoid, with spikelets. Spiklets linear, compressed, erect pale to dark radish brown, rachilla broadly winged. Glumes elliptic-oblong. Stamen 3. Style 3- fid longer than the nuts, glabrous. Fruit nuts .

Flower and fruits- September to December.

Uses- Root tubers are used for the treatment of ulcers, sores, fever, urinary complaints.

30.*Dalbergia Sissoo* Roxb. Ex. DC.

Family-Fabaceae

Common name- Shiswi, Sheesham, Sissoo.

Evergreen tree; young part pubescent; branches drooping. Leaves 3-5 foliate; leaflets alternate, broadly ovate. Flower small, creamy white, in axillary panicles . Calyx 4-5 mm long, hairy; Corolla creamy-white. Pods strap shaped, subulate obtuse, glabrous, narrowed into a long stalk, often only one seeded, rarely up to 3- seeded.

Flower and Fruits- March to June and September to December.

Uses- It is useful as stimulant and appetiser and also in dyspepsia, diarrhoea, leprosy and worms. Half cup of leaf juice is taken in the morning and evening for three to five days for fever.

31. *Datura stramonium* Linn.

Family-Solanaceae

Common name- Dhotra

Annual herbs, Leaves alternate, ovate, obliquely cuneate at base. Flower solitary; peduncle hairy, calyx long tubular, 5-ribbed; teeth lanceolate, hairy. Corolla tube long lobes rounded acuminate. Filaments adnate to the corolla tube. Capsule globose, minutely tomentose, covered with numerous, sharp spines. Seeds subreniform, brown, smooth.

Flower and fruits- July to October.

Uses- Head lice infestation. Dried leaves are used in the treatment of asthma.

32. *Dendrocalamus strictus* Nees

Family-Poaceae

Common name- Velu.

Araborescent unarmed bamboos. Culms densely tufted, branched, glaucous when young. Spiklets in dense, globose heads. Spinescent, often hairy, the fertile intermixed with smaller barren ones. Fertile spikelets 7-12 mm long with 2-3 fertile florets. Glumes ovate, many nerved; apex spinescent. Lemma ovate. Palea ovate, 6-8 nerved, 2-keeled. Lodicules absent. Stamen 6, long exerted. Ovary turbinate, stalked, hairy above; style long, ending in 2-3, purple, feathery stigmas.

Flower and fruits -December to March but once in about 40 years.

Uses- Seeds are highly nutritive and are cooked and eaten by local people. Young internode are crushed and applied on joints for rheumatism.

33. *Dregea volubilis* (L.F.) Benth. Ex Hook.

Family-Asclepiadaceae

Common name-Hiran Dodi

Large perennial, twining shrubs with watery sap. Leaves opposite. Flower in dense lateral, umbellate cymes; peduncle 2-3 cm long; bract linear. Calyx pubescent outside, glandular within, teeth ovate. Corolla green, rotate, glabrous, divided ¾ way down; lobes, broadly ovate; corona with 5 fleshy lobes. Pollinia obliquely oblong. Follicles lanceolate, divaricate. Seeds broadly ovate, glabrous.

Flower and fruit- July to October.

Uses- Few drop of leaf juice are dropped in nose for cold.

34. *Evolvulus alsinoides* Linn

Family-Convolvulaceae

Common name-Vishnu Kranta

Prostrate, trailing or rarely erect, silky pubescent, perennial herbs; branches 10-long wiry. Leaves oblong- lanceolate or elliptic-ovate, densely clothed with appressed silky hairs, petiole very short. Flower axillary, solitary or in 1-3 flowered cymes. Calyx densely silky; sepals lanceolate. Corolla light blue with white mid-petaline bands. Stamens 5, exerted; filaments slender. Fruit capsule globose, 4 valved, glabrous. Seeds 4 or less, ovoid, glabrous, grey.

Flower and fruits- June to December.

Uses- Decoction of roots used for coughs and colds. Leaves used for asthma and mental disturbances. Leaves made into cigarettes and smoked in chronic bronchitis and asthma. Whole plant used extensively as tonic and febrifuge.

35. *Ficus benghalensis* Linn.

Family- Moraceae

Common name- Wad

Huge tree with spreading branches and sending down many aerial roots from branches; young parts softly pubescent. Leaves alternate, Receptacle globose, sessile in axillary pairs, bright red; basal bracts3, orbicular. Male flowers near the mouth of receptacles, numerous. Tepals 4. Stamen one. Gall flowers similar to males but with short style. Female flowers with 4-petals as in males and ovary with elongate style. Achenes ovoid, brown.

Flower and fruits- April to June.

Uses- Latex of stem applied externally in normal bone fracture. Latex is applied on face twice a day for three days to cure pimples. Young leaves are crushed with cow butter and paste is applied on the burn part of the body.

36. *Ficus glomerata* Roxb.

Family-Moraceae

Common name- Umbar

Large, evergreen trees without aerial roots. Leaves alternate, Receptacles shortly pedunculate on short, leafless, warted branches, pyriform or subturbinate, orange-red, pubescent; basal bracts 3, ovate triangular. Male flowers forming ring near the mouth of receptacle, sessile. Tepals 3-4, membranous. Stamens2; an irregularly 4-5 toothed. Achenes ovoid.

Flower and fruits- February to June.

Uses- Latex of stem applied externally in normal bone fracture. Leaves are given in vomiting. Root latex two cup of latex are taken thrice a day for five days for urinary stones.

37. *Ficus religosa* Linn

Family-Moraceae

Common name- Marathi Pimpal

Large, glabrous trees; bark greyish. Leaves alternate. Receptacles sessile, in axillary pairs. Male flowers few, sessile, near the mouth of the receptacle. Tepals 3, broadly ovate. Stamen one. Gall and female flowers shortly stalked, either without perianth or with 5, lanceolate tepals. Fruit achene minute, ovoid brown.

Uses- Bark powdered kept in half glass water for overnight taken early in the morning three to four days for jaundice. Bark is also used for Abscess. A fresh twig is chewed and then used for brushing teeth continue one month for toothache. Few drop of leaf extract dropped in the nostrils to get relief from nose problem.

38. *Gloriosa superba* Linn

Family-Liliaceae

Common name- Khdya naag, Kal lawi

Perennial glabrous, branching climbers; root-stock fleshy, Leaves alternate, opposite or in whorls of 3, ovate-lanceolate, rounded or cordate at base, entire tip, ending in a tendril-like spiral. Flower large show, axillary, solitary or sucorymbose towards the end branches. Perianth segments distinct, linear-lanceolate, greenish-yellow turning red, with crispy waved margins, strongly reflexed. Style long trifid. Capsule fusiform or oblong. Seeds many, subglobose, grey.

Flower and fruit- August to November.

Uses- Aerial stem is used for easy delivery of pregnant women. Root stock and seeds colchicines-like alkaloid-gloriosin. Medicinally used as antidote against scorpion, snake bite and piles.

39. *Gmelina arborea* Roxb.

Family-Verbenaceae

Common name- Gamar, Shivan

Tall trees with young parts densely velvety tomentose. Leaves broadly ovate or elliptic rhomboid, cordate or subtruncate and slightly cuneate at base, fulvous tomentose beneath. Flower dichotomously branched, velvety tomentose panicles of 3- flowered cymes. Calyx campanulate, 5 –toothed; teeth triangular. Corolla orange yellow or yellowish. Fruit drupaceous, obovoid-oblong, orange –yellow or blackish.

Flowering and fruit- March to May.

Leaves and fruits are taken in urinary infection, one cup decoction is taken in morning and evening for 5 days for cure urinary infection. Bark and leaves paste applied on the swelling.

Uses- The roots and bark are reportedly useful in treating hallucinations. Fever and burning sensation. The leaf paste is reported to be effective for treating cephalagia and the leaf juice is a good wash for foul ulcers. The flowers and fruits are reported to be effective in treating, anaemia, ulcers and constiparation.

40. *Gynandropsis pentaphylla* Dec

Family-Cappridaceae

Common name-Tilwan

Annual herbs plant reaches height up to 2-3 feet; dirty odors, pubescent branched; forked; young shoots hirsute; leaves alternate, petioled , digitate; floral leaves ternate and sessile; leaflets sessile. Flower Racemose corymbiform; bract short petioled, flowers gynandrous, white, long pedicelled, silique long, seeds numerous.

Flower and fruits- August to October.

Uses- The seeds are stimulant. The leaves ground and applied to the skin act as a rubifacient.

41. *Hemidesmus indicus* (L) R.Br.

Family-Asclepiadaceae

Common name- Anantvel.

A perennial prostrate or twining shrub, rootstock woody stem numerous, slender glabrous or pubescent. Flower crowded in sub sessile cymes in the opposite axils. Calyx glabrous outside; ovate. Corolla greenish outside, purple inside, tube very short. Fruit follicle, cylindric, tapering to a point at the apex straight or sometimes slightly curved, striate, glabrous. Seeds ovate-oblong, flattened, black; coma silvery-white.

Flower and fruit- Sept. to December

Uses- Roots are crushed into a fine powder one teaspoon of powder is taken with water or tea twice day for one month for purification of blood and breast-milk curdled.

42. *Hibiscus rosa-sinensis* Linn.

Family-Malvaceae.

Common name- Jaswandi

Evergreen nearly glabrous shrub. Leaves ovate, irregularly serrate dentate, shining green above; stipule lanceolate-subulate. Flower solitary, axillary, bracteoles 5-7, linear lanceolate. Calyx tubular; lobes lanceolate; petals red. Staminal tube exserted far beyond the petals.

Flower and fruit- Throughout the year.

Uses- The flowers fried in ghee are administered for checking excessive menstruation also flower powdered is given.

43. *Holarrhena antidysenterica* Wall

Family-Apocynaceae

Common name-Pandhra-kuda, Dolakuda

A shrubs or small tree, glabrous or pubescent, bark pale. Leaves broadly ovate to elliptic, base usually obtuse main nerves 10-14 pairs. Flower white, inodorous, in terminal corymbose cymes. Calyx oblong lanceolate, acute. Corolla puberulous outside; tube long, slightly inflated near the base over the stamens, mouth not closed with a ring of hairs, throat hairy inside; lobes about equaling tube, oblong rounded at the apex, more or less pubescent. Fruit follicles 8-15 inch long cylindric, often dotted with white spots.

Flower and Fruit- Sept to November.

Uses- Bark and seed constitute a very important drug in Hindu Material Medica, Seeds are roasted on pan and ground to fine powder, one pinch of powder is taken twice a day for abdominal pains, intestinal worms and fever. Decoction of bark given in diarrhoea.

44. *Hygrophila schulli*

Family-Acanthaceae

Common name-Talim khana

Stout herbs with numerous fasciculate, usually unbranched, subquandrangular stem. Leaves sessile, in whorls of 6 at each node. Thorn from the axils of leaves sharp, yellowish brown. Flowers in axillary clusters of eight at each node; bracts lanceolate, hairy. Calyx 4- partite, sepal unequal, one much longer than the other three. Corolla purple-blue; tube long; limb 2-lipped. Stamens 4; Fruit Capsules linear-oblong, pointed. Seeds 4-8 ovate-quadrate, black, compressed, hygroscopically hairy.

Flower and fruits- June to February.

Uses- Leaves are useful in cough and urethral discharges. Seeds are useful in veneral diseases.

45. *Jasminum multiflorum* (Burn F) Andr.

Family-Oleaceae

Common name-Kunda

Scandent shrubs; young parts clothed with velvety pubescence. Leaves opposite, ovate rounded or cordate at base, acute and mucronate, softy tomentose on both surfaces, becoming glabrate above, densely villous. Flower sweet scented, sessile, in dense terminal capitates cymes; bracts large, ovate acute, foliaceous. Calyx densely fulvous tomentose; teeth subulate. Corolla snow-white, glabrous; tube long, elliptic oblong, acute mucronate. Fruits globose, black, surrounded by persistent calyx teeth.

Flower- September to November.

Uses- Whole plants used for plant pacifies vitiated vata, pitta, wounds, ulcers, constipation, flatulence, skin diseases, rheumatism and stomatitis.

46. *Jasminum sambac* (Linn.) Ait.

Family-Oleaceae

Common name-Bat-mogra

A sub erect shrub, scarcely climbing; young branches pubescent. Leaves opposite , broadly ovate or elliptic. Flower white, very fragrant, solitary or 3-flowered , calyx hairy , teeth 5-9, linear

subulate. Corolla tube half inch long; lobes as long as the tube, narrowly oblong, acute or obtuse. Carpel 1-2, subglobose,

Flower and fruit- Throughout year

Uses-Leaves are used for the treatment of skin diseases, ulcers and fever. The young leaves and flowers to make a putty, which was mixed and eaten with rice to dry scabies and other skin eruptions. The Jasmine flower is used to cure fevers.

47. *Mangifera indica* Linn

Family-Anacardiaceae

Common name-Aambaa

Tall evergreen trees with dense crown of spreading branches, leaves simple oblong lanceolate, .flower in large terminal panicles , calyx deeply lobed, sapels ovate, petals dull white deflexed, with 3 strong orange coloured ridges on the inner face. Disk fleshy 5 lobed ovary glabrous fruit drupes often obliquely pyriform.

Flower and fruits- January to June.

Uses- one teaspoon tender leaf juice with half teaspoon of honey is taken for vomiting. Dried bark burnt and the ash mixed with coconut oil to make. The paste is applied on wound in the morning and evening till cured.

48. *Michelia champaca* Linn.

Family-Magnoliaceae

Common name- Son Chapha, Pivla chapha.

Tall, handsome glabrous tree. Leaves lanceolate, Flower pale yellow to brown- yellow, sweet scented, axillary, solitary. Follicles orbicular to ovate, brown; valves woody, covered with white tubercles. Seeds smooth, flesh coloured.

Flower and fruits- April to November.

Uses - Dry roots are reported to be used as a purgative. Bark is a stimulant and diuretic. Flower oil used in cephalagia Flowers are reported in nausea, fever and also useful as a diuretic in renal diseases.

49. *Moringa olefera* Lamk.

Family-Moringaceae

Common name- Shevga

Middle sized trees with corky bark. Leaves 3-4 pinnate. Flower large, lax terminal puberulous panicles. Calyx cup-shaped, 5 lobed, segments, unequal petaloid. Petal white, unequal, spathulate.

Perfect stamen 5, alternating with 5-7 staminodes. Ovary oblong; style cylindric. Pods linear, upto 50 cm long obtusely triangular, 9 ribbed. Seeds 3 angled and winged on angles.

Flowering and fruits- almost throughout years mostly January to June.

Uses- A gum resembling tragacanth is obtained by incision from the bark. Gum is administered in rheumatism. The seeds used in venereal affections.

50. *Mucuna pruriens* (L) DC

Family-Fabaceae

Common name- Khajkuiri

Large , grey-pubescent, twining annual herbs; branches slender. Leaves trifoliate. Leaflets membranous. Flower in many-flowered dense, pendulous racemes, solitary or 2-3 together, calyx gray tomentose outside. Corolla dark purple. Pods 's' shaped, turgid, densely clothed with brown shining bristle. Seeds 5-6.

Flower and Fruits- September to December.

Uses- Hairy fine thorn of pods taken off carefully and pinch in mixed with jaggery to make a ball the size of supari. One ball is to be swallowed whole (without chewing) for intestinal worm. Seeds of *Mucuna pruriens* and seeds of *Astracantha longifolia* in equal amounts are crushed to line power separately and then mixed. Powder is taken with milk twice day for one week for impotence.

51. *Musa paradisiaca* Linn

Family-Musaceae

Common name- Kela

Perennial herbs, profusely stoloniferous. Leaves oblong, sheaths forming pseudostems. Flowers unisexual, in two rows in a dense cymose inflorescence subtended by a large, coloured bract, these partial inflorescences arranged spirally on a long., drooping, and stout axis. Bracts brownish-red, broadly ovate, truncate at base; lower bracts (Proximal) subtending female and distal bracts male flowers. Calyx tubular, spathaceous, 5 lobed. Corolla of a single, membranous, notched petal. Stamens 5. Ovary 3-locular. Fruit fleshy, oblong to fusiform,

Flowers and fruits- Throughout year.

Uses- Ripe fruit is eaten with sugar, twice day till cured for urinary problems. A slit is made in the stem and the juice collected this Juice one drop put in ear when the ear aches. Juice of stem is also taken for irregular menstruation.

52. *Nerium indicum* Mill

Family-Apocynaceae

Common name- Kaner

Shrub, branches many, whorled, angular glabrous. Leaves whorled. Flower terminal, polychasial cymes; Calyx tubular, 5-partite; sepal lanceolate. Corolla white, pink deep red; tube short, with fimbriate scale near the mouth; Stamen inserted near the throat; anther cell long-spurred with twisted hairs. Ovaries distinct. Fruit follicles lanceolate, acutely angled. Seeds villous with long terminal coma.

Flower and fruits- Throughout year.

Uses- The bark of the roots and the leaves are considered a powerful repellant, applied externally.

53. *Oxalis corniculata* Linn

Family-Oxalidaceae

Common name- Ambushi

Perennial herbs; stem creeping and rooting at the nodes; branches erect or ascending. Leaves digitately 3-foliate. Flower 2-8, in umbellate cymes borne on peduncles. Sepals lanceolate-oblong, obtuse, hairy outside. Petals yellow stamens in two whorls of 5 each, long and short alternating, connate at base. Ovary oblong; styles distinct, hairy. Capsules oblong. Narrowed at apex, pubescent. Seeds transversely ribbed.

Flower and fruit- Throughout year.

Uses- The leaf juice in the dose 20 ml is administered in the conditions cures bloody diarrhoea. The leaves are crushed and used as an external application in the conditions like painful swelling or any inflammation this will provide cooling effect to these area and reduce the swelling.

54. *Phyllanthus amarus* Schum and Thonn

Family-Euphorbiaceae

Common name- Bhui Awli

Erect annual herbs. Leaves distichous, elliptic oblong, rarely somewhat obovate, rounded at both ends, entire, apiculate, green above, glaucous beneath; petioles very short or obscure; stipules lanceolate, minute. Flower small in leaf axils, 1-2 together; pedicels les s than one mm long. Perianth segments 5 or 6, less than 1 m long, obovate oblong, acute, green with broad scarious margins, enlarging in fruit. Disk 5-lobed; lobes orbicular. Stamens 3; filaments entirely connate. Styles bifid at apex. Fruit globose-trigonous, depressed at apex, 1-2mm in diam., smooth.

Flower and fruits- July to November.

Uses- Leaves, roots and young shoots are much used in gonorrhea and other genitor-urinary affections. Root powder or juice of the entire plant to be taken on an empty stomach seven days for jaundice, swelling of the liver and swelling in abdomen.

55. *Phyllanthus emblica* Linn.

Faily-Euphorbiaceae

Common name- Awla.

Middle-sized, deciduous trees. Leaves distichous, subsessile, linear oblong. Flower in axillary fascicles on leaf bearing branchlets; bracts fimbriate. Male flower numerous, on short, slender pedicels. Perianth segments 6. Female flowers few, subsessile; segments as in the males. Disk copular. Ovary trilocular; style connate below, bifid at apex. Fruit fleshy, globose, with 6, obscure, vertical furrows, pale yellow, with 2-seeded 3 crustaceous cocci. Seeds 6, trigonous.

Flower and fruits- October to March.

Uses- Fruits are reported to be good for asthma, bronchitis, diabetes, cough, , peptic ulcers, skin diseases, inflammations, diarrhoea, dysentry, cardiac disorders and intermittent fevers . Rich in Vit. C, and excellent liver tonic.

56. *Piper longum* Linn

Family-Piperaceae

Common name-Pan pimpali

It is creeper that spread on the ground. Leaves are 2-3 inch long. The older leaves are dentate dark in coloured and heart shaped. The younger leaves is ovate in shape. Flower are monoceous male and female flower born of separate plants. Male flower stalk is about 1 to 3 inch long and female flower stalk is 1 inch long. Fruit is long. It is one inch in diameter.

Flower and fruiting-August to October.

Uses- Two tablespoons of piper powder mixed with two table spoons of leaf juice of Ocimum leaves. Four spoons of the mixture, twice daily after meals for two days for against cholera. Inflorescence axis mixed with rice and boiled eaten for reduce the weight. Piper longum helps stimulate the appetite and it dispels gas from the intestines.

57. *Piper betel* Linn

Family-Piperaceae

Common name- Paan, Nagwel

Perennial, dioecious climbers; stem scarcely branched, producing clinging roots at aerial nodes, glabrous. Leaves alternate, ovate-oblong to broadly ovate. Male flowers in narrow, cylindric, spikes,

minute; bracts peltate, adnate to the rachis, perianth absent. Stamens 1-4; anthers 2-celled. Female flowers not seen in the region.

Uses – Leaves chewed with kattha for purification of blood or cough and cold.

58. *Plumbago zeylanica* Linn

Family-Plumbagineceae

Common name- Chitrak

Glabrous undershrub, Stem often with punctuates. Leaves ovate-oblong, rounded at base, undulate along margins, acute, glabrous above, white-punctate beneath. Flower in axillary and terminal racemes combined into 20-30 cm. long panicles. Calyx 8-10mm long. Glandular-hairy outside; teeth linear-subulate, very short. Corolla white with narrow tube and across limb; lobes oblong,. Style glabrous, 5-fid. Capsules oblong acute, enclosed in calyx. Seed solitary, ellipsoid.

Flower and Fruits- July to October.

Uses- Roots are ground with water on stone; paste is applied externally to abscesses.

59. *Plumeria rubra*

Family-Apocynaceae

Common name- Pandhra Chapha

Small trees, stem soft, hollow, leafless for4major part of the year; Latex ample. Leaves alternate, oblong-lanceolate to oblanceolate, narrowed at base passing into a short petiole. Flower in terminal, peduncled corymbs. Fragrant; Calyx deeply divided; sepals suborbicular. Corolla lobes2-cm long, overlapping to the left.

Flower and fruit- March to September.

Uses- Decoction of bark is given in Asthma.

60. *Pongamia pinnata* (Linn) Pyre

Family-Fabaceae

Common name- Karanj

Small or medium sized trees; branches drooping , glabrous. Leaves pinnate. Flower axillary racemes shorter than the leaves; calyx truncate or obscurely toothed. Corolla pinkish-white. Pods woody, oblong-ellipsoid, compressed, recurved.

Flower and fruit- Oct. to December

Uses- One pinch roasted seeds powdered is mixed with honey and taken thrice a day for five days for whooping cough. Seeds oil is applied on skin for scabies and skin diseases.

61. *Punica granatum* Linn

Family-Punicaceae

Common name-Dalimb

Deciduous shrubs or small trees, Leaves opposite, sessile subsessile,. Flower showy, extra-axillary, solitary on short pedicels. Calyx tube campanulate, sepals 5-7, thick, leathery, persistent in fruit. Petals 5-7 bright red, inserted on the edge of the hypanthium; filaments slender. Fruit berry

Flowers and Fruit- August to November.

Uses – Decoccotion of fruit pulp used in cough. Fruit skin powder given in intestinal worms. Bark of the stem rubbed on a stone to make paste. The paste is applied in morning and evening until cured for abscess. Decoction of bark given in diarrhoea.

62. *Ricinus communis* Linn

Family-Euphorbiaceae

Common name-Erand

Erect shrubs; Leaves spirally arranged, palmately 5-9 lobed, crenate-serrate, Flowers in narrow, terminal panicles consisting of subsessile cymes of lower males and the upper female flowers, up to 30 cm long. Male cymes 3-20 flowered; perianth segments ovate, acuminate. Stamens many in branched fascicles. Female cymes 1-7 flowered. Perianth as in males, caduceus. Stigmas red. Fruits covered with soft prickles, schizocarpic.

Flower and fruits- February to June.

Uses- Seed oil is given in constipation. Leaf juice used as anthelminitic and in rheumatism.

63. *Saccharum officinarum* Linn

Family-Graminae

Common name- Oos, Ganna

Tall perennial, rhizomatous herbs. Culms solid, glabrous. Leaves sheaths terete. Panicles large densely branched, silky with spreading, articulate, capillary branches. Spiklets minute, awnless, 1-flowered, 2-nate. Sessile spikelet bisexual, ovate-lanceolate, callus densely bearded, twice as long as the spikelet. Lower glume subcoriaceous, lanceolate. Upper glume similar, broader. Lower lemma empty, hyaline. Upper lemma lanceolate, hyaline, shorted than the lower.

Flowering and fruiting- October to November.

Uses – In sugarcane juice soaked 25 g channa over night and channa is given to eat in the morning for stomach worms.

64. *Sapindus emarginatus* Vahl.

Family-Sapindaceae

Common name- Ritha, Soapnut

Middle sized tree; young parts rusty tomentose. Leaves abruptly pinnate, Petiole short, pubescent; leaflets sub opposite, 2-3 pairs. Flower in terminal, rusty tomentose panicles shorter than the leaves, males numerous, bisexual few; Calyx 5 . Corolla white, slightly longer than sepals. . Disk concave with hairy margin. Stamens 8; filament villous. Ovary densely hairy. Drupes 2-3 lobed. Clothed with fulvous tomentum when young. Glabrous and wrinkled when ripe, dark brown, 2-3. Seeded.

Flower and Fruit-

Uses- The roots and are expectorant and demulcent. A decoction of the bark is good for cattle suffering from ulcers due to worm infestation after calving. The fruits are good for asthma, diarrhoea and cholera. Its fruits are natural substitutes for chemical soaps and hair dyes.

65. *Saraca indica* Linn

Family-Caesalpinaceae

Common name- Sita Ashok

An evergreen shady trees horizontal branching. It is a very handsome, small, erect evergreen tree, with deep green leaves growing in dense clusters.

Uses- A decoction of the bark is reported to be used in treating uterine affections. The flowers are pounded, mixed in water and are used for treatment of dysentry. The seeds taken with water are supposed to alleviate suppression of urine and calculus.

66. *Sarcostemma acidum* Voigt.

Family-Asclepiadaceae

Common name- Ran sher, somlatta

A perennial , leafless, twining plants, with numerous cylindric branches and branchlets, terminal umbels, and glabrous pedicels and calyx; penta-partite, outer corolla 10- plicate, 10-crenate, leaflets of inner corona gibbous on the back, equal to the gynostegium. Fruit follicles usually solitary. Seeds ovate; coma silky white.

Flowers and fruit- February to May.

Uses- The Plant dried and powdered is used in visceral obstruction and jaundice, and a decoction of the fresh leaves as a febrifuge and tonic.

67. *Semecarpus anacardium* Linn.

Family-Anacardiaceae

Common name- Bibba

Small trees, young part grey pubescent. Leaves simple, oblong oblanceolate, rounded or sub-cordate at base. Flower sub sessile, clustered in pubescent panicles as long as or shorter than leaves. Calyx 5-6 lobed. Petals creamy white. Ovary in male flowers minute, in the females subglobose, densely pilose. Fruit Drupes shining black, obliquely ovoid, seated on a fleshy, edible, orange coloured thalamus.

Flower and Fruits- September to January.

Uses- The fruits are used to treat cancer, constipation, flatulence, especially hookworms, scaly skin eruptions, leprosy, leucoderma, cardiac diseases, diabetes, tumors, ulcers and general debility. The ripe fruit and its oil reported to be used for treating dyspepsia, nervous debility, neuritis, and rheumatism. Fleshy receptacles are edible.

68. *Santalum album* Linn.

Family- Santalaceae

Common name- Chandan

Small, evergreen, glabrous trees with slender, drooping branches. Leaves opposite, elliptic lanceolate, . Flower inodorous, in terminal and axillary paniculata cymes; peduncles and pedicels short. Perianth campanulate, brownish purple; segments 4, triangular,. Stamens 4, exerted, alternating with 4, rounded- obtuse scales. Ovary half inferior; Fruit drupes globose, purple-black, shining.

Flower and fruits- March to October.

Uses- The bark is used for malaria. The wood grounded with water into a pestar, is applied on local inflammations, on forehead in case of fever and on skin eruptions. The oil obtained from the heart wood of the tree is reported to be used in the treatment of cystitis (inflammation of bladder)A paste of the wood and oil are reported to be used for treating burning sensation, skin diseases, cardiac debility, jaundice, cough, bronchitis cystitis, inflammation, gastric irritability, intermittent fever and general debility.

69. *Sesamum indicum* Linn

Family-Pedaliaceae

Common name- Teel

Erect glandular pubescent, annual herbs. Leaves alternate or the lower opposite and often deeply 3-lobed; Flower axillary, solitary, forming a false raceme at the ends of branches. Calyx campanulate. Corolla white, pink or pale purplish with yellow palate and deep purple lobes, pubescent outside; limb 2-lipped; lobes rounded. Stamens 4, included. Fruit capsules bluntly quadrangular, shortly beaked, pubescent. Seeds white.

Flower and fruits- August to October.

Uses- Seeds are used in treat sore mouth; no appetite and abscess. Wrap the seeds in leaves of palas and cook them in steam. Then place them in cloth while still hot and wring out the oil and apply the oil twice a day until cured for abscess. Seed oil is used in wounds, leaf and seeds are good for lactation.

70. *Sesbania grandiflora* Pers

Family-Fabaceae

Common name- Hadga

Soft wooded trees. Leaves abruptly pinnate petioles very short; stipules ovate-lanceolate, deciduous. Leaflets 10-30 pairs. Flowers in few flowered, axillary, short racemes, pedicels hairy, bract minute. Calyx campanulate, glabrous, obscurely toothed. Corolla glabrous. Pods green, glabrous. Seeds many.

Flower and fruits- September to December and February to April.

Uses The juice of the leaves is considered tonic and is used to treat worms, and fever. Powdered roots are mixed in water and applied externally as a poultice or rub to rheumatic swellings

71. *Sida spinosa* Linn

Family-Malvaceae

Common name- Kate Bala

Erect, grey-tomentose, woody herbs. Flowers solitary of paired in leaf axils; jointed bellow the calyx grey –tomentose, campanulate. Corolla white, slightly exceeding the calyx; petals obovate. Fruit, enclosed in the persistent calyx, carpels often5. Seeds smooth, black-brown.

Flower and fruits- September to January.

Uses- The roots and the bark is used as demulcent in irritations of bladder, in gonorrhea, fever and as tonic. (Jain, 1968). Plants used for pain, arthritis, asthma, bronchitis and burning sensation. Decoction of the root bark is used in mild cases of debility and intermittent fever.

72. *Solanum melogena* Linn

Family-Solanaceae

Common name- Wanga, Baigun

Prickly much-branched under shrubs; stem and branches stellately grey-tomentose. Prickles few, short, rarely absent. Leaves alternate. Flower in short, few-flowered cymes peduncles short. Calyx cup-shaped irregularly split in to 4-6, ovate-acute, prickly teeth which enlarge in fruit. Corolla purple; lobes triangular-acute, glabrous or pubescent. Berries globose. Seeds numerous, reniform.

Flower and fruits- Throughout the year.

Uses-Decoction of entire plants parts are used for curing diabetes, cholera, bronchitis and dysentry.

73. *Solanum virginianum* Linn.

Family-Solanaceae

Common name-Bhuiringni, Ran vange.

Procumbent or trailing, herbs or undershrubs; stem woody at base; branches many. Densely clothed with long, sharp, prickles; young parts stellate hairy. Leaves sinuate or subpinnatifid, subacute, prickly on both surfaces, glabrescent. Flower in extra-axillary, few-flowered cymes. Calyx densely stellate hairy and prickly outside; tube short; teeth 7-10mm long., linear-lanceolate, acute. Corolla violet-purple, lobes deltoid-acute, hairy outside. Fruit berries globose, yellow or white with green veins. Seeds subreniform, glabrous.

Flower and fruits- June to January.

Uses- Heat an iron ladle in the fire till red hot, then place some seeds on it and taken the fumes into the mouth ten minutes each time, twice day for one day for toothache. One cup decoction of root is to be taken three times a day for three days for cough.

74. *Spilanthes calva* DC.

Family-Asteraceae

Common name- Akkalkara

Decumbent, perennial herbs. Rooting from the lower nodes. Leaves opposite. Receptacle columnar with a narrowed top, paleaceous; palea conduplicate, keeled, embracing the central florets, with lobed top and membranous margins. Involucral bracts many seriate, broadly ovate or oblong. Marginal florets one-seriate, female, with yellow, 3-dentate, ligulate corollas. Central florets numerous, bisexual, with yellow, tubular, 5-lobed corollas. Style arms truncate, short. Achenes usually without ciliate margins.

Flower and fruits- September to December.

Uses- Flower are used in cough.

75. *Sterculia urens* Roxb.

Family-Sterculiaceae

Common name- Gum Karaya, Kandol

Medium sized tree; young parts pubescent. Leaves crowded at the ends of branches, palmately lobed, cordate, glabrous above, velvety pubescent beneath; lobes 3-5. Flower polygamous, in glandular pubescent, terminal panicles appearing before the leaves. Calyx campanulate, viscous hairy. Staminal column in male flowers short; stamens 10. Carpels 5 in hermaphrodite flowers; gynophore short; style short; stigmas 5. Fruit follicles 5-6, ovoid-oblong, , densely covered with dark purple; shining, stinging hairs. Seeds oblong, black.

Flower and Fruits- March to May.

Uses – Gum obtained from trunk- karaya gum. It is an excellent edible gum. It is used to cure bone dislocation and fracture, sores, joint pains, stomach disorders, throat infections and as a tonic.

76. *Syzygium cumini* (L.) Skeel

Family-Myrtaceae

Common name- Jambhul

Trees reaching 20m in height; bark ash white, glabrous. Leaves opposite, Flowers in paniculata cymes arising from old leaf scars. Calyx cup shaped limb, truncate or obscurely 4-toothed. Petals white, calyptrate. Stamen exserted. Fruits dark violet, globose or ellipsoid, smooth, variable in size, crowned with truncate calyx limb. Seed solitary, globose or oblong, greyish brown.

Flower and fruits- March to July.

Uses- Seeds powder treating on diabetes & liver stimulant. Decoction of bark given in excessive menstruation. 4 green leaves crushed to powder are mixed with 50 ml water. After sieving given to drink it in the morning 10 days for diabetes.

77. *Tamarindus indica* Linn

Family-Caesalpiniaceae

Common name- Chinch, Imli.

Large evergreen tree; bark dark grey. Leaflets 10-20 pairs. Flowers in few flowered lax racemes at the ends of the branchlets, rachis and slender pedicels minutely pubescent. Calyx minutely pubescent outside; tube short. Petals yellow, obovate striped with red. Stamens 3, monadelphous. Pods oblong, turgid. Seeds 1-10, ovate-quadrate, dark brown polished.

Flower and fruit- November to April.

Uses- Seeds are useful for scorpion bite. Seed is rubbed on a stone in a few drops of water till the skin comes off. This part of the seed is applied on the part of stung where it will stick. Bark is used for bleeding from nostrils, half cup decoction of bark drink one or two days.

78. *Terminalia arjuna* (Roxb.) Wt. and Arn.

Family- Combretaceae

Common name- Arjun, Kahu

Large tree branches glabrous; bark smooth, greenish-white. Leaves often sub opposite, oblong or elliptic-oblong, rounded or subcordate at base, obtuse or subacute. Flower sessile, in short, axillary and terminal panicles; bracteoles linear-lanceolate, caduceus. Calyx 4 teeth triangular. Disk clothed with yellowish or radish hairs. Drupes ovoid-oblong, dark brown, with 5 hard wings. **Flowers and fruits**- April to August.

Uses- Bark is reported to be a cardiac tonic, used in bilious affections, for sores and as an antidote to poisons. Fresh leaves juice is used against earache. Bark powder applied on wound for cure. Decoction of bark given in excessive menstruation, abdominal pain, diarrhoea and vomiting.

79. *Terminalia bellirica* (Gaertn.) Roxb

Family-Combretaceae

Common name-Behada

Large deciduous tree, bark ash coloured, longitudinally fissured. Leaves collected at the end of branches. Flower axillary and terminal, simple or branched spike. Upper ones in the spike often male, the lower hermaphrodite. Calyx pubescent outside. Disk brown hairy. Fruit Drupes broadly ellipsoid of subglobose, densely velutinous, brown, faintly 5 ribbed.

Flower and fruits- May to September

Uses- Decoction of bark given in abdominal pain. The bark is reportedly used in treating anaemia and leucoderma. Fruits are reported to be effective in curing persistent cough, bronchitis, insomnia, vomiting, skin diseases, fevers, ulcers and general debility. The mature and dry fruit is constipating and is useful in diarrhoea, dysentery and rheumatic.

80. *Terminalia chebula* Retz.

Family-Combretaceae

Common name-Hirda, Harda

Trees tall; branches many, spreading. Leaves elliptic-oblong rounded or cordate at base, glabrous above, pubescent beneath. Flower all hermaphrodite, in terminal, often panicled spikes;

bracteoles exceeding the flowers, calyx campanulate, glabrous outside, hairy within, lobes short obscure. Fruit drupes pendulous, ellipsoid, brown, glabrous, obscurely 5- ribbed.

Flower and Fruits- April to October.

Uses- Pulp of fruit is used in triphala churn. Fruit of pulp mixed with Awala and Beheda powder used on stomach ache gastric trouble. The fruits are laxative and reported to be used for treating wounds, ulcers, inflammations, gastropathy, jaundice, skin diseases, intermittent fever and cardiac disorders.

81. *Tinospora cordifolia* (Willd) Miers.

Family-Menispermaceae

Common name-Gulwel

Woody twiners with long pendulous aerial roots and striate or lenticulate glabrous branches. Leaves broadly ovate, deeply cordate at base, acuminate at apex. Flowers yellowish green in axillary racemes; males fascicled, females usually solitary; bracts lanceolate or foliaceous. Male sepals unequal, outer ones ovate oblong, inner ones suborbicular. Petals clawed, limb subtrilobed, shorter than inner sepals. Female sepals similar to those of females. Petals oblong, entire. Drupes, subglobose, red. Seeds white, bean shaped, warty.

Flowers and fruits- August to December.

Uses- Extract of root, stem and leaves are used in medicine as tonic and in diarrhoea and chronic dysentry. Stem and bark used for curing jaundice and intermittent fever.

82. *Tribulus terrestris* Linn.

Family-Zygophyliaceae

Common name-Sarata, Ghokroo

A trailing annual herbs, leaves opposite, abruptly pinnate; leaflets 5-6 pairs. Flowers axillary, on short peduncles, yellow solitary; petal 5, calyx 5, fruit 5 coccus, each with 2 long and 2 short prickles.

Flower and fruits- August to November.

Uses- The entire plants are dried and crushed one teaspoon powder is taken twice day for one week for excess menstruation, in both excessive and also less urination. An infusion of fruits is useful in quote and diseases of kidney. Entire plants used in rheumatism.

83. *Vitex negundo* Linn

Family-Verbinaceae

Common name- Nirgudi

Erect shrubs or small trees with greyish tomentose branches. Leaves 3-5 foliate. Flowers in greyish-tomentose, pedunculate, terminal or axillary panicles of distantly and laterally disposed cymes; bracts bracteolate. Calyx cup shaped tomentose, teeth triangular acute. Corolla bluish, tomentose outside and within at the insertion of the stamens. Stamens 4, included. Fruits subglobose, drupaceous.

Flowers and fruits- September to December.

Uses- Leaves are used for joint pains, juice is extracted and mixed with till oil. The joint is massaged with oil for five to ten minutes, morning and evening for 15 days. Leaves are heated and heated leaves are tied to paralysed limb for ten to fifteen days morning and evening time.

84. *Vitis vinifera* Linn

Family-Vitaceae, Angur

Common name-Draksha

Perennial deciduous tendril climber, tendrils bifid, opposite to leaves, leaves simple, 3-7 lobed. Leaves rotund-cordate 3-7 lobed, glabrous above, tomentose beneath when young .Flowers small, green, found panicled cymes, Calyx cup shaped, truncate, pubescent outside, Petal white, oblong, connate and hooded at apex. Ovary globose

Flowers and fruits- December to May.

Uses- Leaves, stem, flower and fruits are medicinally used for burning sensation, constipation, hemorrhoids, anemia, skin diseases, colic, flatulence, jaundice, and vomiting.

85. *Ziziphus mauritiana* Lamk

Family-Rhamnaceae

Common name-Ber

Large shrubs or small tree, young parts softly white tomentose. Leaves broadly elliptic-lanceolate to orbicular. Stipular spines in pairs with one straight and other curved. Flower in axillary, many flowered, sub-umbellate cymes. Calyx pubescent outside; lobes triangular, acute. Petal greenish spathulate, deflexed with stamens. Stamens enclosed in and shorter than the petal. Disk 10-lobed. Ovary ovoid, half sunk into the disk; style 2. Drupes ellipsoid or ovoid.

Flower and Fruits- September to January.

Uses- Decoction of Warm seeds is used in fever. Decoction prepared by grinding seeds in salt water given orally two teaspoon thrice day for two month for early recovery of Jaundice.

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Table- 01- List of Indigenous Medicinal plants

Sr. No.	Botanical Name	Family	Common name	Plant parts used
1	*Abrus precatorious* Linn	Fabaceae	Gunj patta	Leaves.
2	*Acacia catechu* (Roxb. Ex Rottl.)	Mimosaceae	Khair, Kattha	Bark
3	*Achyranthes aspera* Linn.	Amaranthaceae	Aghada	Leaves and seeds
4	*Adhatoda vasica* Nees	Acanthaceae	Adulsa	Leaves
5	*Aegle marmelos* (L.) Corr**.**	Rutaceae	Bel	Root, Leaves and Fruit
6	*Albizzia lebbeck* (L.) Willd.	Mimosaceae	Shirish	Bark
7	*Allium cepa* Linn	Alliaceae	Kanda, Piaz	Bulb
8	*Allium sativum* Linn.	Alliaceae	Lasun	Flakes
9	*Alstonia scholaris* R. Br.	Apocynaceae	Saptaparna, Satvin.	Bark
10	*Amaranthus viridis* Linn.	Amaranthaceae	Math, Tandulka	Leaves
11	*Asparagus recemosa* Willd.	Liliaceae	Shatawari	Rhizome
12	*Azardirachta indica* A. Juss.	Meliaceae	Kadu limb, Neem	Bark Leaves & flowers
13	*Baccopa monnieri* (L.) Wettst.	Scorpularaceae	Neerbrahmi	Entire plants
14	*Balanites aegyptica* (L.) Del.	Balanitaceae	Hingan Bet	Fruit and seeds

15	*Bombax ceiba* Linn.	Bombaceae	Kate sawar, Silk cotton tree.	Thorn
16	*Boswellia serrata* Roxb.	Burseraceae	Salai	Gum
17	*Butea monosperma* (Lam) Taub .	Fabaceae	Palas	Bark, gum, flower and
18	*Calotropis procera* (L) R. Br.	Asclepiadaceae	Rui, Ruchki.	Leaves, flower and
19	*Carissa carandas* Linn .	Apocynaceae	Karavand	Fruits
20	*Caryota urens* Linn.	Palmae		Tender leaves and Nuts
21	*Cassia fistula* Linn.	Caesalpiniaceae	Bahava, Amaltas.	Fruits
22	*Cassia tora* Linn,	Caesalpiniaceae	Tarota.	Root, flower and Seeds
23	*Citrus medica* Linn	Rutaceae	Kaaghzi limbu.	Fruit
24	*Cocos nucifera* Linn	Palmae,	Naral, Narial	Fruit shell
25	*Commiphora mukul* (Hook. ex	Burseraceae	Gugal	Gum
26	*Cordia dichotoma* Forst	Boraginaceae	Bhokar	Bark
27	*Cucumis sativus* Linn.	Cucurbitaceae	Kakadi Khira	Fruit
28	*Cynodon dactylon* (Linn) Pers.	Poaceae	Durwa, Harali.	Leaves
29	*Cyperus rotundus* Linn	Cyperaceae	Motha	Rhizome
30	*Dalbergia Sissoo* Roxb. Ex. DC.	Fabaceae	Sheesham, Sissoo.	Bark and leaves
31	*Datura stramonium* Linn.	Solanaceae	Dhotra	Leaves & seeds
32	*Dendrocalamus strictus* Nees	Poaceae	Velu.	Seeds
33	*Dregea volubilis* (L.F.) Benth. Ex	Asclepiadaceae	Hiran Dodi	Leaves latex
34	*Evolvulus alsinoides* Linn	Convolvulaceae,	Vishnu Kanta	Entire plants
35	*Ficus benghalensis* L inn	Moraceae	Wad	Root , stem latex &leaves
36	*Ficus glomerata* Roxb.	Moraceae	Umbar	Root, leaves & stem
37	*Ficus religosa* Linn	Moraceae	Pimpal	Bark & leaves
38	*Gloriosa superba* Linn,	Liliaceae	Khdya naag, Kal	Root & stem
39	*Gmelina arborea* Roxb.	Verbenaceae	Gamar, Shivan	Bark, Leaves & flower
40	*Gynandropsis pentaphylla* Dec	Cappridaceae	Tilwan	Leaves & seeds
41	*Hemidesmus indicus* (L) R.Br.	Asclepiadaceae,	Anantvel	Roots
42	*Hibiscus rosa-sinensis* Linn.	Malvaceae.	Jaswandi	Flowers
43	*Holarrhena antidysenterica* Wall	Apocynaceae,	Pandhra-kuda	Bark & seeds
44	*Hygrophila schulli*,	Acanthaceae	Talim khana	Leaves & seeds
45	*Jasminum multiflorum* (Burn F) Andr.	Oleaceae	Kunda	Root, leaves and flower.
46	*Jasminum sambac* Ait	Oleaceae	Bat- mogra	Root, Leaves and flower.
47	*Mangifera indica* Linn ,	Anacardiaceae	Aambaa	Tender shoots
48	*Michelia champaca* Linn.	Magnoliaceae	Son Chapha, Pivla chapha.	Bark & fruits
49	*Moringa pterigosperma* Lamk.	Moringaceae	Shevga	Root, bark & flower
50	*Mucuna pruriens* (L) DC	Fabaceae	Khajkuiri	Fruit thorns & seeds
51	*Musa paradisiaca* Linn.	Musaceae	Kela	Juice & fruit
52	*Nerium indicum* Mill	Apocynaceae	Kaner	Roots
53	*Oxalis corniculata* Linn	Oxalidaceae	Ambushi	Leaves
54	*Phyllanthus amarus* Schum and Thonn	Euphorbiaceae	Bhui Awli	Roots, leaves & fruits
55	*Phyllanthus emblica* Linn.	Euphorbiaceae	Awla	Fruits
56	*Piper longum* Linn	Piperaceae	Pan pimpali	Flowers
57	*Piper betel* Linn	Piperaceae	Paan , Nagwel	Leaves
58	*Plumbago zeylanica* Linn	Plumbagineceae	Chitrak	Roots

59	*Plumeria rubra*	Apocynaceae	Pandhra Chapha	Bark
60	*Pongamia pinnata* (Linn) Pyre	Fabaceae	Karanj	Seeds
61	*Punica granatum* Linn.,	Punicaceae	Dalimb	Bark & fruit
62	*Ricinus communis* Linn	Euphorbiaceae	Erand	Leaves & seeds
63	*Saccharum officinarum* Linn	Graminae	Oos, Ganna	Stem
64	*Sapindus emarginatus* Vahl.	Sapindaceae	Ritha	Root, bark & fruits
65	*Saraca indica* Linn	Caesalpinaceae	Sita Ashok	Bark, flower & seeds
66	*Sarcostemma acidum* Voigt.	Asclepiadaceae	Ran sher, somlatta	Stem
67	*Semecarpus anacardium* Linn.	Anacardiaceae	Bibba, Bhilawa	Fruits
68	*Santalum album* Linn.	Santalaceae	Chandan	Bark & wood
69	*Sesamum indicum* Linn	Pedaliaceae	Till	Seeds
70	*Sesbania grandiflora* Pers.	Fabaceae	Hadga	Flower & fruits
71	*Sida spinosa* Linn.	Malvaceae	Kate Bala	Root & whole plant
72	*Solanum melogena* Linn.	Solanaceae	Wanga, Baigun	Entire plants
73	*Solanum virginianum* Linn.	Solanaceae	Bhuiringni, Ran	Seeds
74	*Spilanthes calva* DC.	Asteraceae	Akkalkara	Flower
75	*Sterculia urens* Roxb.	Sterculiaceae	Gum Karaya,	Gum & stem
76	*Syzygium cumini* (L.) Skeel.	Myrtaceae	Jambhul	Bark, leaves fruits &
77	*Tamarindus indica* Linn	Caesalpiniaceae	Chinch, Imli	Bark, leaves & seeds
78	*Terminalia arjuna* (Roxb.) Wt. and	Combretaceae,	Arjun, Kahu	Bark
79	*Terminalia bellirica* (Gaertn.) Roxb	Combretaceae,	Behadaa	Fruit & fruit
80	*Terminalia chebula* Retz.	Combretaceae,	Hirda, Harda	Fruits
81	*Tinospora cordifolia* (Willd) Miers.	Menispermaceae	Gulwel	Leaves & stem
82	*Tribulus terrestris* Linn.	Zygophyliaceae	Sarata, Ghokroo	Entire plants, fLeaves,
83	*Vitex negundo* Linn	Verbinaceae	Nirgudi	Leaves
84	*Vitis vinifera* Linn	Vitaceae	Angur, Draksha	Fruits
85	*Ziziphus mauritiana* Lamk.	Rhamnaceae	Ber	Fruit Fruits