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# Ethno-Medico-Botany of PALI-DISTRICT, RAJASTHAN, India

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**ABSTRACT:** Pali-district lies in western side of Aravalli range of Rajasthan. This district is fortunately a cradle of medicinal plants, because this region is the ecotone of both vegetational segments of Rajasthan like xerophytic vegetation of Thar Desert as well as mesic vegetation of Aravalli range. A considerable amount of oral information on medicinal properties of plant is available with rural people of Pali-district. The information about local flora they have received from ancestor in oral form. An account of the ethno medicinal vegetation of Pali-district, along with a list of Angiosperm taxa comprising 200 species belonging to 178 genera spread over 69 families is given in this paper. In the present paper an attempt has been made to document and acknowledge the precious traditional knowledge on folk-lore medicines of this district and the selected important ethno-medicinal plants used by rural people are discussed in this paper. The local folk conservational strategies adapted by rural peoples of this district have also been reported.

**KEYWORDS:** - Ethno-medicinal plants, Folk-medicine, Folk-lore, Traditional-knowledge.

### I. INTRODUCTION

Pali-district lies in western side of Aravalli range of Rajasthan. This district is fortunately a cradle of medicinal plants, because this region is the ecotone of both vegetational segments of Rajasthan like xerophytic vegetation of Thar Desert as well as mesic vegetation of Aravalli range. A considerable amount of oral information on medicinal properties of plant is available with rural people of Pali-district. The information about local flora they have received from ancestor in oral form. These people have inherited good knowledge about cause and symptoms of common human and veterinary ailments and local flora with its hidden values from their ancestors, which is passed from one generation to another through oral communications. The famine food of Marwar and note on vegetable product used as food during famine Kingh (1869 & 1870) was the remarkable research in ethno-botany of Rajasthan. The manual of ethnobotany Jain (1987) was also milestone work in ethnobotanical research. Traditional uses of plants bio-diversity from Aravalli hill of Rajasthan were investigated by Kateva *et al* (2003) and unrecorded ethno-medicinal uses of biodiversity from Todgarh-Raoli wild life sanctuary, Rajasthan was reported Jain *et al* (2007). Ethno-botanical survey of Rajasthan - An update was done by Choudhary *et al* (2008). and plants in material culture of tribals and rural communities of Rajshmand district were reported by Choudhary *et al* (2008). Prospective of an ethnobotanical study from Rajasthan was done by Kateva (2009). Some part of Pali district is also occupied by Todgarh-Raoli Wildlife Sanctuary so far of this concern the ethno-medico-botanical study of Todgarh-Raoli Wildlife Sanctuary was done by Kanther and Gena (2012, Kanther *et al*. 2012).

In the present paper an attempt has been made to document and acknowledge the precious traditional knowledge on folk-lore medicines of Pali-district and the below listed (Table-01). This vital knowledge needs to be scientifically and systematically documented before its loss due to rapid changes in the community on account of attaining modern civilization by the rural population. Considering this aspect the present work has been investigated mainly Identification, habit, habitat, ethno-medicinal analysis of the Pali district. It is pre-requisite for developing strategies for their conservation.

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## II. STUDY AREA PROFILE

The Pali-district lies between 24° 45' and 26° 29' north latitudes and 72° 47' and 74° 18' east longitudes. The main topographic feature of Rajasthan is Aravalli range. The Great Aravalli range runs along the eastern side of the district from south west to north-west and it link this district with Ajmer, Rajsamand, Udaipur and Sirohi Districts. The shape of this district resembles to an irregular triangle and has undulated plains with scattered and exposed hills. This is the only district in Rajasthan which is surrounded by maximum, 8 districts are Jalore, Sirohi, Barmer, Rajsamand, Ajmer, Jodhpur, Nagaur, and Udaipur shown in (Fig.-1). Personal observations were taken in the field by visiting the study area and its different landforms. May month was hottest month of the year, temperature raise between 26°C minimum to 44°C maximum. Coldest month of the year was January temperature raise between 8°C minimum to 30°C maximum. Most of the rainfall occurs in the monsoon period from July to September and winter rains are rare. The average annual rainfall was 300-400 mm. Most of rainfall is received during monsoon in the month of July to September. After rains, the forest is luxuriant in vegetation and enriched with diversity in genera and species. The relative humidity was minimum in hot months and maximum in monsoon month.

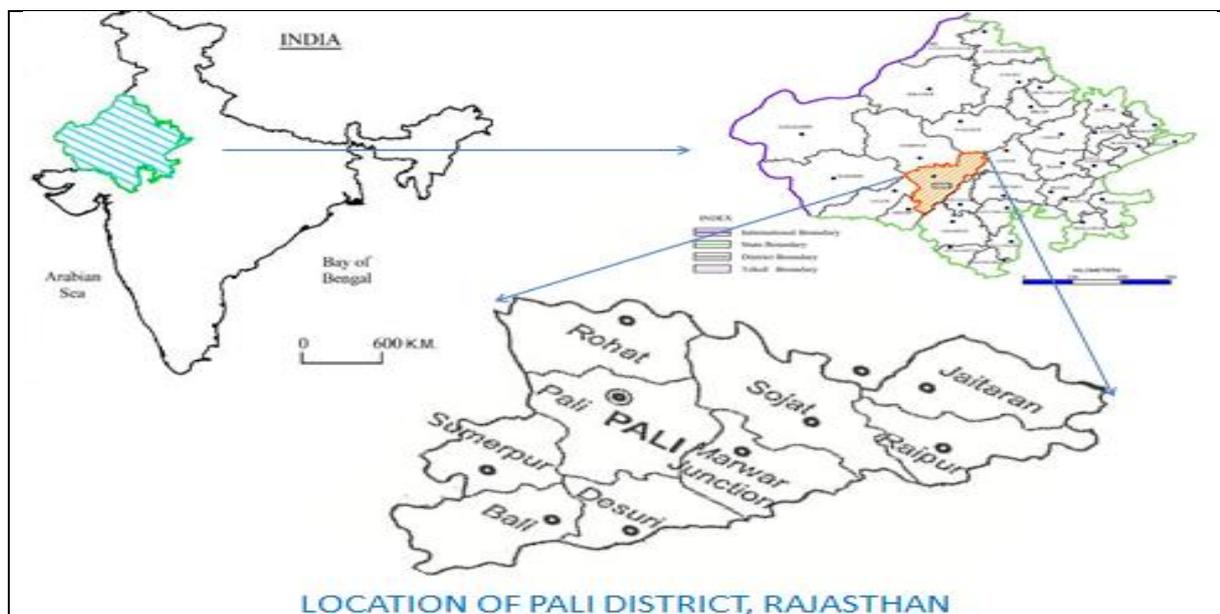


Fig. -1 Location of Study Area

## III. MATERIALS AND METHOD

Field surveys were made in different seasons in Pali-district in different vegetational regions like Desuri-Naal (Valley), Jawai Dam, GoramGhat, Foolad forest, Shriyari forest, Bagri forest, JararoonathjikiDhooni, some part of Todgarh-Raoli Wild life Sanctuary, some part of Kumbhal-Garh wild life sanctuary and Parash Ram Mahadev. The above botanical regions are visited frequently in rainy season. Rainy season was the best time to visit many places, tribesmen and rural people to establish the reciprocal communication between ethno-medico investigations. A wide range of people were interviewed first in groups and then individually. Local herbal healers and livestock healers were also contacted. Interviews were conducted with the rural people, local Viadys, Ojhas and Medicine men. Generally rural people who know about the medicinal plants do not want to share all information because they believe that medicinal plant, if disclosed; its medicinal properties will be lost forever. Due to this reason, the information collection from the

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rural people was an important aspect of ethno-medico studies. The information which was provided to us was oral information and it was crossed examined at different places.

Affords were made to identify the plant materials. The species were identified with the help of the flora of the Indian desert Bhandari (1990) and the flora of Rajasthan Shetty & Singh (1987) Vol.-I, II, III. Identification was done with the help of well-known botanist and former Vice-Chancellor Dr. C. B. Gena.

### OBSERVATIONS

Table-1 Information on medicinal plants being used in the treatment of livestock in Pali-district has been provided in Table- 01.

S. No	Family/ Botanical Name of the Plant / Local name/Habits	Useful plant parts	Medicinal Importance
1.	ANNONACEAE		
1	<i>Annonasquamosa</i> L. Local name- Sitaphal Habit- Shrub, Dicot	Leaves Fruits Root Seeds	-Folkloric medicinal plant for the treatment of several disorders like leaves used as cardiac tonic and also have antidiabetic properties. -Roots are powerful purgative and useful in dysentery. -Ripen fruits useful in hyperthyroidism. -fruits are rich source of minerals vitamins. -Seeds are powerful vermicides for intestine.
2.	MENISPERMACEAE		
2	<i>Cissampelospareira</i> L. Local name- Patha Habit- Climber, Dicot	Climbing -Stem Leaves Root	-Stem juice used for ulcer and asthma and also recommended for blood purification. -The decoction of leaves used in rheumatism, fever and malaria. -Roots are effective appetizer and also cure anorexia and abdominal pain.
3	<i>Cocculushirsutus</i> (L.) Diels Local name- JalJamnikibel Habit- Climber, Dicot	Leaves, Climbing -Stem	-Leaves juice mixed with water form a jelly like substance, a cooling medicine for gonorrhoea and it is aphrodisiac. -The decoction of leaves used in leucorrhoea.
4	<i>Cocculuspendulus</i> (J. R. G) Diels Local name- Pilwan Habit- Climber, Dicot	Leaves Root, Fruit	-Aqueous leaf mixture forms a green jelly which is used externally for skin disease. -Decoction of root used in Kidney pain. -fruit paste mixed with mustered oil and used for massage.
5	<i>Tinosporacordifolia</i> (Willd.) Miers. Local name-Neemgiloy, Giloy Habit- Climber, Dicot	Whole Plant	-The decoction of stem is very useful in blood purification and also used in ailment of acne in adolescent age. -Extract of plant is hypoglycemic it used for treatment of jaundice.

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3. NYMPHAEACEAE			
6	<i>Nymphaeanouchali</i> Burm.f. Local name- Kumud Habit- Aquatic herb, Dicot	Whole Plant	-It is used in treatment of diarrhea, dysentery and abdominal infections. -It also useful in constipation.
4. PAPAVERACEAE			
7	<i>Argemonemexicana</i> L. Local name- PeeliKateli, Satyanashi Habit- Herb, Dicot	Leaves Root Flower	-Plant leaf juice used in eye infection. -Roots are useful in chronic Skin infection. -Inflorescence juice used as blood purifier.
5. FUMARIACEAE			
8	<i>Fumariaindica</i> Haussk. Local name- Pitpapra Habit- Herb, Dicot	Whole Plant	-Traditionally used as laxative and diuretic. -The paste of stem and leaf with mustered oil used for eczema.
6. BRASSICACEAE			
9	<i>Coronopsdidymus</i> (L.) Smith Local name- Rudanti Habit- Herb, Dicot	Leaves	-Leaves are useful in respiratory disease and also in bronchitis. -Leaves are also wound healing.
10	<i>Farsetiahamiltonii</i> Royle Local name- Hiranchhaboor, HiranChabba Habit- Herb, Dicot	Stem leaves	-Traditionally use in treatment of diabetes and gastrointestinal disease.
11	<i>Lepidium sativum</i> Linn Local name- Asaliyo, Habit- Herb, Dicot	Whole Plant	-Leaves and stem used in the treatment of bleeding piles. -Seeds are chewed to treat sour throat. -Roots are used in syphilis.
7. CLEOMACEAE			
12	<i>Cleome gynandra</i> L. Local name- Arkakanta, Hulhul Habit- Herb, Dicot	Whole plant	-Plant juice given in weakness after fever. -Seed powder used for piles. -Flowers good for eye sight. -Decoction of whole plants used as blood purifier.
13	<i>Cleome viscosa</i> Linn. Local name- Tilaparni, "wild or dog mustered" Habit- Herb, Dicot	Whole plant	-Folkloric medicine used in treatment of ear ache and ulcer. -Seeds are documented to be beneficial in helminthic infections.
8. CAPPARIDACEAE			
14	<i>Cadabafruticosa</i> Roxb. Local name- Bahuguni Habit- Shrub, Dicot	Whole plant	-Leaves are anthelmintic the decoction of leaves use in urine obstructions. -Leaves juice used as poultice on sores. -Decoction of root and leaves is given twice daily for a week to cure urine obstruction and resume free flow of urination. -Leaves and roots are purgative and aperients during helminthiasis. -Stem decoction used in the treatment of

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			<p>syphilis.</p> <p>-Leaf juice internally used in case of general weakness and dysentery.</p>
15	<p><i>Capparisdecidua</i> (Forssk.) Edgew Local name- Ker, Kair Habit- Shrub, Dicot</p>	<p>Fruits, Stem, Root</p>	<p>-Fruits are edible and used in international famous vegetable and are beneficial in cardiac problems.</p> <p>-The paste of branches and young leaves are used in swelling.</p> <p>-When pickled or cooked as vegetable the immature fruits are used to cure stomach problems.</p> <p>-Stem used in asthma.</p>
16	<p><i>Capparissepia</i> L. Local name- Belkair, Heens Habit- Shrub, Dicot</p>	<p>Leaves Stem</p>	<p>-Leaf juice externally used for skin problems.</p> <p>-Stem crushed and applied on wound.</p>
9. VIOLACEAE			
17	<p><i>Viola odorata</i> L. Local name- Vanapsa Habit- Herb, Dicot</p>	<p>Leaves</p>	<p>-The leaves are antiseptic and used internally as well as externally for the treatment of malignancies.</p> <p>-The leaves are also used in eye inflammations.</p>
10. CARYOPHYLACEAE			
18	<p><i>Polycarphaecorymbosa</i> (L.) Lam. Local name- Jhutanio Habit- Herb, Dicot</p>	<p>Whole plants</p>	<p>-Folk medicinal plant used in reducing fever,</p> <p>-Whole plants have antimicrobial activity and anti-inflammatory activities.</p>
19	<p><i>Spergularvensis</i> Bhandari Local name- Muchmachio Habit- Herb, Dicot</p>	<p>Whole plants</p>	<p>-Folk medicinal plant reported as diuretic.</p> <p>-Stem paste for skin infections.</p>
20	<p><i>Sterllaria media</i> (L.) Vill. Local name- Makhmal Habit- Herb, Dicot</p>	<p>Leaves</p>	<p>- In Pali district traditionally leaves decoctions has been reported as curative applications.</p> <p>-Leaves used to treat acute gastrointestinal disorders.</p> <p>-Leaves are boiled and use as vegetables, boiled leaves are also external applied in treatment of swelling of legs and other parts as anti-inflammatory activities.</p>
11. PORTULACACEAE			
21	<p><i>Portulacaoleracea</i> L. Local name- Lunaki Habit- Herb, Dicot</p>	<p>Whole Plants</p>	<p>-Eaten as vegetable for the treatment of scurvy and diseases of kidney, spleen and bladder.</p>
12. ELATINACEAE			

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22	<i>Bergiaammannioides</i> Roth Local name- Jal Bhangra Habit- Herb, Dicot	Whole Plants	-Folk medicinal plant commonly known as wound healing plants as its antibacterial, antioxidant and anti-inflammatory activities. -Leaves also used in skin disease.
13. MALVACEAE			
23	<i>Abelmoschusmoschatus</i> (Linn.) Medicus Local name - Ambreti seed Habit- Herb, Dicot	Seed	-Seeds powder used to cure snake bite and neurodegenerative disease.
24	<i>Abutilon indicum</i> (L.) Sweet Local name -Kanghi Habit- Herb, Dicot	Whole plant	-Decoction of whole plant used to cure gonorrhoea. -Stem and leaves anti-inflammatory and diuretic.
25	<i>Abutilon fruticosum</i> Gull, &Perr. Local name-Imarti Habit- Herb, Dicot	Leaves	-Leaves have anti-microbial properties. -Leaves are also used in inflammation.
26	<i>Hibiscus cannabinus</i> L. Local name - Ambari Habit- Shrub, Dicot	LeavesSeed	-Leaves are laxative and given raw to animals as tonic. -Seeds are diuretic.
27	<i>Hibiscus abelmoschus</i> L. Local name - Latakasturi Habit- Shrub, Dicot	Seeds	-The seed paste with milk used to cure itch and snake bite. -Seeds are also diuretic and aphrodisiac.
28	<i>Sidacordifolia</i> L Local name - Bal, Kungy Habit- Herb, Dicot	Leaves Root Young branch	-A tonic and aphrodisiac plant and also useful in neurological disorder. -Powder of root used for the treatment of urinary and nervous disease.
29	<i>Gossipiumherbaceum</i> L. Local name - Kapas Habit- Shrub, Dicot	Leaves Seeds root	-Water juice of leaves used in childhood diarrhea. -Seeds are used in nervine tonic in headache and brain affection. -Decoction of the root used as an abortifacient in Pali-district.
14. BOMBACACEAE			
30	<i>Bombaxceiba</i> L. Local name - Semal Habit- Tree, Dicot	Roots Stem seeds	-Young roots are roasted in the fire and eaten like roasted sweet potato while some tribals eat raw during famine in Pali-district region. -Stem and bark are antibacterial, antiviral and used in protozoal infection. -Seeds used in small pox.
15. STERCULIACEAE			
31	<i>Helicteresisora</i> L. Local name - Marorphali Habit- Climber, Dicot	Fruits Leaves Seeds	-Fruit powder used with black salt to cure gastrointestinal disorders. -fruit paste mixed with mustered oil and

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			<p>turmeric paste used for massage in new born baby to cure profound weakness.</p> <p>-fresh leaves paste used in skin infection.</p> <p>-Seed powder boil with water and taken for dysentery.</p>
32	<p><i>Sterculiaurens</i>Roxb. Local name - Kada Habit- Tree, Dicot</p>	Gum Leavesbar k	<p>-The gum used in swelling and throat infection.</p> <p>-Leaf and bark have antioxidant and antimicrobial activity.</p>
33	<p><i>Waltheriaindica</i> L. Local name - Bhasoda Habit- Shrub, Dicot</p>	Leaves	<p>-A decoction of leaftaken as a treatment for fever and it is applied externally on skin eruption and wounds.</p>
16. TILIACEAE			
34	<p><i>Corchoruscapsularis</i> L. Local name - Jute Habit- Herb, Dicot</p>	Leavesroot s	<p>-The leaves have been used to increase appetite.</p> <p>-Roots are used against dysentery.</p>
35	<p><i>Corchorusdepressus</i>(L.) Stock Local name - Cham Gas Habit- Herb, Dicot</p>	Stem fruits	<p>-Stem bark decoction is effective in cough and muscular pain.</p> <p>- Frits eaten by tribal in summer season.</p>
36	<p><i>Grewiatenax</i>forsk.fiori. Local name - Gangeran Habit- Shrub, Dicot</p>	Stem, Root, Bark	<p>-Stem bark decoction effective in cough and muscular pain.</p> <p>-Fruits eaten by tribal have to quench thirst during summer season.</p>
17. ZYGOPHYLLACEAE			
37	<p><i>Fagoniaindica</i>Hadidi. Local name - Dhamaso Habit- Herb, Dicot</p>	Whole Plant	<p>-Decoction of Whole Plants cures fever, small pox and other skin disease.</p> <p>-Decoction of leaves is blood purifier.</p>
38	<p><i>Tribulusterrestris</i>L. Local name - Chhota, Gokhru Habit- Herb, Dicot</p>	Whole Plant	<p>-Mucilaginous water extract of Whole Plants is taken as a remedy for impotency.</p> <p>-Leaves are used in the treatment of stones in bladder.</p>
18. OXALIDACEAE			
39	<p><i>Oxalis corniculata</i>Linn. Local name - Khati-Buti Habit- Herb, Dicot</p>	Leaves stem	<p>-Roadside plant is a reservoir of medicinal properties lives and stem boiled with butter and milk are given in liver and digestion problems.</p> <p>-leaves also have wound healing properties.</p> <p>-Stem used in scurvy.</p>
19. RUTACEAE			
40	<p><i>Aeglemarmelos</i> (L) Corr. Local name - Bilva-patra Habit- Tree, Dicot</p>	Fruit Leaf	<p>-Ripe fruits are aromatic, cooling, laxative and used in constipation, and peptic ulcers.</p> <p>-Unripe fruits are very effective in case of chronic diarrhea and dysentery.</p> <p>-Its leaves are rich of tannin. It reduces inflammation.</p>

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41	<i>Citrus medica</i> Linn. Local name - Nimbu Habit- Tree, Dicot	Fruits	-Analgesic, antioxidant activity, antiulcer activity, inflammatory activity.
42	<i>Feronialemonia</i> (L.) swingle Local name - Kaith, wood apple, elephant apple Habit- Tree, Dicot	Leaves Fruits Gum	-Leaves are aromatic and used in bronchitis, vomiting, hiccough and cough. -The ripe fruits are used to cure dysentery. -fruit juice is given in stomach disorders. -Gum given to children's in constipations.
43	<i>Limoniaacidissima</i> L. Local name - Kakji Habit- Tree, Dicot	Fruits Gum	-Fruit used in diarrhea and dysentery for liver and cardiac tonic. -Gum also used for throat disease. -Leaves are antioxidant and used as tonic.
20. SIMAROUBACEAE			
44	<i>Ailanthus excelsa</i> Roxb. Local name - Aardu Habit- Tree, Dicot	Leaves	-Decoction of leaves is use in ague (fever in cattle) ship, goat and camel. -Leaf and stem bark shows anti-implantation and early abortifacient activity.
21. BALANITACEAE			
45	<i>Balanitesaegyptiaca</i> (L.) Delile Local name-Hingota Habit- Tree, Dicot	Fruit Seed root	-Seed powder & root powder used in chronic bronchitis. -Fruit pulp used in acne and vulgarism.
22. BURSERACEAE			
46	<i>Boswelliaserrata</i> Roxb. exCocls. Local name- Salar Habit- Tree, Dicot	Gum Bark	-Bark powder used in diarrhea and bark also mixture with the powder of <i>glycyrrhizaglabra</i> used in rheumatic arthritis. -Gum resin used as in chronic ulcer, asthma and inflammations. -Bark shows antifungal activities.
47	<i>Commuiophorawightii</i> (Arnott.) Bhandari Local name- Guggal Habit- Tree, Dicot	Stem Gum resin	-It is source of a fragrant gum resin obtained from stem. In local medicine it is used as an antiseptic on old wounds. -The smoke from burning guggal is inhaled to cure bronchial infection.
23. MELIACEAE			
48	<i>Azadirachtaindica</i> A. Juss Local name - Neem Habit- Tree, Dicot	Whole plant	-The leaves applied externally for skin problems. -Washing of hair with leaf decoction stops hair loss and dandruff.
49	<i>Meliaazararach</i> L. Local name - Bakayan Habit- Tree, Dicot	Leaves	-An aqueous extract of leaves use in asthma. -leaves are externally used for skin disease.
24. CELASTRACEAE			

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50	<i>Celastrus paniculatus</i> Willd. Local name - Malkangani Habit- Shrub, Dicot	Seeds Leaves root	-The seed oil employed as stimulant nerve tonic, rejuvenate, sedatives and also diuretic. -It is also used in treatment of rheumatism. -Powdered seed taken orally in acidity and gastric problem. -In folk medicine crushed leaves and roots are used in skin problems and headache.
51	<i>Maytenus marginata</i> Willd. Local name - Kankera Habit- Shrub, Dicot	Leaves Fruit	-An ointment prepared by mixing burnt leaves ash and butter heal the wound -Leaf Juice taken for treatment jaundice and other liver disorders.
25. RHAMNACEAE			
52	<i>Ziziphus mauritiana</i> Lam. Local name - Bair, Badar Habit- Shrub, Dicot	Leaves fruits	-Leaf extract used for skin rejuvenation. -Fruits are used in improve muscular strength.
53	<i>Ziziphus nummularia</i> Wight. & Arn Local name - Chota Ber Habit- Shrub, Dicot	Fruit pulp, Leaves	-Useful in eczema and hiccup. -Leaf paste is used in skin infections.
54	<i>Ziziphus jujube</i> L. Local name - Bor Habit- Shrub, Dicot	Fruit- pulp, Leaves	-Paste of fruit pulp is use for burned skin. -Leaves are conditioning for hair.
26. VITACEAE			
56	<i>Ampelocissus latifolia</i> (Roxb.) Planc. Local name –Tita, Jhadol Habit- Climber, Dicot	Tuberous	-Fresh crushed tuber is boiled with Ricinus communis oil and applied externally for treatment of gout.
57	<i>Cissus quadrangularis</i> L. Local name - Hadjod Habit- Climber, Dicot	Stem	-The crushed stem is applied for bone setting in fracture of bones. It is fried in butter and eaten for a weak for early bone setting.
27. SAPINDACEAE			
58	<i>Cardiospermum halicocobum</i> L. Local name -Kapalphori, Aank Phootnikibel Habit- Herb, Dicot	Whole Plant	-It promotes hair growth. -Juice of plant cures earache. -It is applied in snake and scorpion bite. -The extract of plant used to regular the menstrual cycle.
28. ANACARDIACEAE			
59	<i>Lannea coromandelica</i> (Houtt.) Merr. Local name- Siddha Habit- Tree, Dicot	Leaves	-Leaf of the plant traditionally used in the treatment of local swelling and pains of body.
60	<i>Rhus mysorensis</i> Heyne Local name - Dansara Habit- Shrub, Dicot	Fruits Leaves	-Small aromatic shrub used in traditional medicine like fruits used in dysentery. -Leaf decoction is a ready for itching.
29. MORINGACEAE			

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61	<i>Moringoconcanesis</i> L. Local name - Sainjna Habit- Tree, Dicot	Bark Resin Gum	-Bark paste applied externally to reduce muscular pain. -Barks are also anti-abortifacient in properties. -Resin used in fire burn wounds. -Gum used as tonic.
62	<i>Moringooleifera</i> Lam. Local name - Sahanjna Habit- Tree, Dicot	LeavesGu m Pod	-Leaves used in diarrhea, colitis and use as vegetable in preparing soup. -Leaves decoction is use in ear infection. -Pods are used in tooth ache. -Gum has nutritional value used in “ladoo of winter” as a tonic.
30. FABACEAE			
63	<i>Abrusprecatorius</i> L. Local name - Chirmi Habit- Shrub, Dicot	Seeds LeavesRoo t	-Seeds grinded with lime and poured on acne, sore and abscess. -Decoction of leaves taken orally in cold and flu. -Roots are useful in jaundice and root paste also applied externally for abdominal pain and inhibits abortion. -Root also use in the remedy of snake bite. -Root grinded to powder and use in warm infestation.
64	<i>Albizialebbek</i> (L.) Benth Local name - Sirish Habit- Tree, Dicot	Bark Leaves seeds	-Bark used for treatment of inflammations and it is aphrodisiac and also use in weakness. -Leaves are antiseptic and used in redness of eyes. -Seed oil applied topically to cure leukoderma.
65	<i>Bauhinia racemosa</i> Lamk Local name - Asundro Habit- Tree, Dicot	Flower Buds	-Flower decoction given to women as lactation for breast feeding problems.
66	<i>Bauhinia variegata</i> L. Local name Kachnar Habit- Tree, Dicot	Flower	-Flower bud with paste of black paper given to women to regulate in gynecological problems. -Leaf as laxatives.
67	<i>Buteamonosperma</i> (Lam)Taub. Local name - Palash, Dhak Habit- Tree, Dicot	Gum Flower	-Gum is given to female after delivery called “kamarkas”. -Paste of seed & flower use for ring worm & skin disease.
68	<i>Clitoriaternatea</i> L. Local name Aparajita Habit- Climber, Dicot	Root Leaves	-Root powder use for snake bite. -Leaf and stem juice used in jaundice.

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69	<i>Crotalaria burhia</i> Buch Local name - Shinio Habit- Herb, Dicot	Root Leaves Root	-After the root boiled in water the filtrate has a good cooling effect and can be taken orally in summer. -Leaves paste can be apply externally on wounds and cuts. -Root juice with sugar can be given to cure kidney pain.
70	<i>Delonix regia</i> Bojer Ex. Hook. Local name - Gulmohar Habit- Tree, Dicot	Leaves Flower	-The leaves used in constipation, inflammations and arthritis. -Flowers have been used as traditional herbal remedy and folk lore for joint pain and flatulence. -Leaves have anti-fungal properties.
71	<i>Glycorrhigeglabra</i> Linn. Local name -Mulathi Habit- Herb, Dicot	Rhizome Root	-Rhizomes and roots use as tonic. -It also used in cough and chest infection. -The powder of rhizome mixed with the bark of <i>Boswelliaserrata</i> given rheumatic arthritis.
72	<i>Indigofera tinctoria</i> L. Local name - Neel Habit- Herb, Dicot	Root	-A watery root paste is applied to treat warm infestation and wound.
73	<i>Indigofera oblongifolia</i> Forsk Local name - Goilia, Jhil Habit- Herb, Dicot	Leaves Root	-Alcoholic extract reduced edema. -It also used in skin disease.
74	<i>Medicago sativa</i> L. Local name - Rijka Habit- Herb, Dicot	Leaves Stem	-Leaves and stem warmed with mustered oil is useful to reduce swelling.
75	<i>Melilotus indica</i> (L.) All. Local name - Marvo/ Nazia Habit- Herb, Dicot	Leaf Inflorescence	-The plant has antispasmodic, analgesic. It is use for swelling, skin rash, wound.
76	<i>Mucuna pruriens</i> (L.) DC. Local name - Kaunchphali Habit- Climber, Dicot	Seed Pod	-Tablet of hairs of pod used in intestinal worm. -Mix powder of seed and fruit used in seminal weakness and erectile dysfunction of penis.
77	<i>Pithecellobium dulce</i> (Roxb.) Benth Local name - Jangal jalebi Habit- Tree, Dicot	Leaves Fruits Seeds	-Leaves are remedy for indigestion and also regulate blood circulations. -Leaves remove dark spots from skin and cure acne, pimples. -fruits are good for pregnant women and also treat jaundice. -Seed are useful for bone and enamel.
78	<i>Pongamia pinnata</i> (L.) Pierre Local name - Papro Habit- Herb, Dicot	Leaves Roots Seed oil	-Leaf extract as crude drug is applied for the treatment of skin disease and piles. -The roots are effective in treatment of

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			cleaning gum, teeth and ulcer. -Seed oil used in treatment of rheumatism, leukoderma and scabies.
79	<i>Pueraria tuberosa</i> (Roxb. ex Willd.) DC. Local name - Vidarikand Habit- Tubers, Dicot	Tuber	-Tuber has good nutritional value it used in "Chyavanparash" as a tonic. -It is aphrodisiac and diuretic. -The powder of tuber with cow milk given to feeding mother.
80	<i>Sesbaniabispinosa</i> (Jacq.)Wight Local name - Ikad Habit- Herb, Dicot	Leaves Seeds	-Leaves use in inflammations. -Seeds mixed with flour are used to treatment of ring worm and worm.
81	<i>Tephrosiapurpurea</i> (L) Pers. Local name - Mava Habit- Herb, Dicot	Root Stem	-Decoction of roots given rheumatism. -Stem and root used in the treatment of piles, skin disease and in stomach upset. -It is also beneficial in disease of kidney. - The famous "rush-stock" and "Punarnava" medicine are made up from this plant.
82	<i>Trigonellafoenum-graceum</i> L. Local name - Methica, Methi Habit- Herb, Dicot	Leaves Stem Seeds	-Seeds are rich in Vitamin E, and this is oldest traditional species known as preservative and added in pickles. -A gargle made from seeds is best for ordinary sour throat. -Leaves and seeds are useful in increasing milk flow in feeding women. -It is use as tonic in "ladoo of winter season". -This plant also used in cholesterol and sugar regulator. -This plant is helps in digestion.
<b>31. CAESALPINACEAE</b>			
83	<i>Bauhinia racemose</i> Lam Local name - Kachnar Habit- Tree, Dicot	Bark Leaves	-The decoction of bark used in dysentery and diarrhea. -Bark and leaves are sweetish and slight acidic use as vermicide. -Decoction of leaves increase urinary discharge.
84	<i>Caesalpinia bonducella</i> Roxb. Local name - LataKaranj Habit- Shrub, Dicot	Seeds	-The powder of roasted seeds with cow ghee given in abdominal pains. -Decoction of leaves useful in warm infestations. -It is also useful in skin infection.
85	<i>Cassia fistula</i> Linn. Local name - Amaltas Habit- Tree, Dicot	Fruit Pods Seeds Flowers	-The Pulp of dried pods is well known safe purgative. -A decoction of the pods used in dried cough. -The powdered seeds are used to cure

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			intestinal amoebiosis. -Leaves are laxative and use externally for insect bite and swelling. -The roots used in chest pain and joint pain.
86	<i>Cassia angustifolia</i> Linn. Local name - Markandika Habit- Herb, Dicot	Whole plants	-A powder of leaf in vinegar applied to skin ailments. - Leaf, stem and root decoction is useful in treatment of wound, skin and respiratory tract infection.
87	<i>Cassia auriculata</i> Lam. Local name - Anwal Habit- Shrub, Dicot	Leaf Flowers Roots	-Decoction of leaves used in joint pain and inflammations. -Flowers are used in reduce body heat and temperature.
88	<i>Cassia occidentalis</i> Linn. Local name - Kasamarda Habit- Herb, Dicot	Whole plants	-This plant is regarded as edible weeds and famine food of Pali-district. -Decoction of root with black pepper used in rheumatism. -Leaf and flower used in skin disease
89	<i>Cassia siamea</i> Lam. Local name - Kesarsama Habit- Tree, Dicot	Leaves seeds	-Fresh and dried leaves boiled for 20 minutes in 1 liter of water is drunk with lemon juice to treat malaria and liver disorder. -Seeds are useful for intestinal warm. -Leaves decoction used in typhoid and also used to reduced sugar level.
90	<i>Cassia sena</i> L. Local name - Sonamukhi Habit- Herb, Dicot	Leaves	-Leaves are used in treatment of constipation, loss of appetite and indigestion also. -Dry leaves are also use as green treatment by 'rebari'tribals of Pali district.
91	<i>Cassia tora</i> L. Local name - Chakramard Habit- Herb, Dicot	Leaf	-Fresh or dried leaflets has been used as folk medicine for treatment of constipation, stomach pain and ring worm. -It is also used in skin diseases.
92	<i>Tamarindusindica</i> L. Local name- Aamli Habit- Tree, Dicot	Fruit pulp, Flower, Seed Leaves	-Fruit pulp used in traditional system as a refrigerant, digestive, laxative and Juice is beneficial in heat stroke. -Powdered seeds used to treat chronic diarrhea, dysentery
93	<i>Saracaasoca</i> (Roxb.)Linn. Local name - SitaAshoka Habit- Tree, Dicot	Bark Leaf	-'Ashoka' has been primarily used as traditional remedy for feminine issue like leucorrhoea, menorrhagia. -Bark used in dysentery. -Leaf is blood purifying, leaf juice mixed with cumin seeds used for stomach pain.
32. MIMOSACEAE			

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94	<i>Acacia leucophloea</i> (Roxb)Willd. Local name - Aronj Habit- Tree, Dicot	Bark twigs	-Decoction of bark used in gargle for oral health. -Dried bark used as tooth powder. -Young twigs used as tooth brush.
95	<i>Acacia nilotica</i> (L.) Del.Subsp-indica Local name - Desi Babul Habit- Tree, Dicot	Gum, Leaf, Bark Pod.	-The Gum is used to prepare “Ladoo” a sweat dish which is used after delivery of rural women as a tonic. -Bark has wound healing property. -The decoction of leaves and bark is used to cure toothache.
96	<i>Acacia senegal</i> (L.) Willd Local name - Kumatiya Habit- Tree, Dicot	Gum resin, stem Pod.	-The gum Arabic is use to cure intestinal problems because of soothing effect on mucous membrane of intestine. -Gum is use to prepare sweat “Ladoo” in winter Season as a tonic. -Twangs are used for clearing teeth as toothbrush. -Pods are eaten as vegetables and use in international fame dish “Pach-kutta”.
97	<i>Prosopis cineraria</i> (L.) Druce Local name - Khejari Habit- Tree, Dicot	Leaf, Flower Pod	-Leaves paste is applied an injured part for early healing. -Pod is also eaten as vegetable called “Sangri” internal fam. Vegetable “Pach-kutta”. -Decoction of young pods used for curing pneumonia.
98	<i>Mimosa pudica</i> L. Local name - Lajvanti Habit- Herb, Dicot	Whole plants	-Whole plant use for vesicle calculi and externally for rheumatism. -Seeds are aphrodisiac.
33. COMBRETACEAE			
99	<i>Anogeissus latifolia</i> (Roxb.) Wall. Ex Guill.&Perr. Local name- Okara Habit- Tree, Dicot	Bark	-Bark used in quick healing of wound. -The roots used in chest pain and joint pain.
100	<i>Anogeissus pendula</i> Edgew. Local name - Dhokra Habit- Tree, Dicot	Leaves twig Bark Fruits	-Decoction is applied on burn part of body for quick relief and paste is use externally for swelling. -Bark is useful in anemia and dysentery. -Fruits are beneficial in constipation.

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101	<i>Terminalia arjuna</i> Wight & Arn. Local name - Arjun Habit- Tree, Dicot	Bark	-Bark powder use in cardiac debility, hypotension and chronic fever also.
102	<i>Quisqualis indica</i> L. Local name - Jhamkabel Habit- Woody climber, Dicot	Whole plants	-Medicinal herbs used thousands of years in indigenous system of Ayurveda very useful rheumatism inflammations. -Roasted seeds given in fever.
34. MYRTACEAE			
103	<i>Eucalyptus camaldulensis</i> Dehnb. Local name - Safeda Habit- Tree, Dicot	Bark leaves	-Aqueous extract of bark and leaf shows antifungal activity. -Seed oil is useful in pain relief of tooth.
104	<i>Eugenia jambolana</i> Lam. Local name - Jamun Habit- Tree, Dicot	Bark Fruits Seeds Leaf	-Fruits and seeds are sweet & acrid used as liver tonic and also useful in diabetes and urinary disorders. -It is also used in treatment of ring worm. -Ripen fruits gives strength to teeth and gums and also useful in digestive ailments. - Leaves prevent vomiting
35. LYTHRACEAE			
105	<i>Lawsonia inermis</i> L. Local name - Mehendi Habit- Shrub, Dicot	Leaves	-A miracle plants for traditional herbal pharmacy and cosmetic and useful for skin ailments and hair treatment.
36. TRAPACEAE			
106	<i>Trapanatans</i> L. Local name - Singhara Habit- Aquatic, Dicot	Fruits stem	-Fruits are useful in intestinal astringent and anti-inflammatory. -It regulates urinary disorders. -Upper part of stem used in eye ailments.
37. CUCURBITACEAE			
107	<i>Citrullus colocynthis</i> (L.) Schrad Local name - Indrayan, Habit- Climber, Dicot	Fruit Root	-The "Indrayan" Ayurveda drug is prepared by fruit. It is antipyretic, anathematic and used for gastric problem -Root powder is effective in jaundice.
108	<i>Coccini grandis</i> (L.) Voigt. Local name - Tindori Habit- Climber, Dicot	Whole plants	-Folk herbal medicinal plants possess antifungal activities. -Root juice given in jaundice and diabetic.
109	<i>Lagenaria siceraria</i> Standl. Local name - Bittergaurd Habit- Climber, Dicot	Fruits Leaves	-Fruits are traditionally used for its cardio protective, cardio tonic and general tonic. -Crushed leaf applied on head for relief in headache.
110	<i>Melothriamaderas patina</i> L. Local name - Kachri Habit- Climber, Dicot	Whole plants	-Plant used in cattle digestion and cattle health. -The juice of root is considered as remedy for spermatorrhoeal health.

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111	<i>Momordiacoccinea</i> Roxb. Local name - Kinakora Habit- Climber, Dicot	Tuber Fruit	-“VangaBhasma” prepare by tuber is useful for diabetes. -Paste of tuber for gland in breast.
38. CACTACEAE			
112	<i>Opuntia elatior</i> Mill. Local name - Naghphani Habit- shrub, Dicot	Whole plants	-Hot phylloclade is applied externally in abscess and wound. -Pulp of phylloclade mixed with turmeric and applied externally for abdominal pain. -Pulp of one ripen fruits is used for burning sensation of stomach. -Mucilaginous juice obtained from chopped stem mixed with honey used for joint pain and foot pains. -Powdered stem rubbed on scalp to clear dandruff.
39. AIZOACEAE			
113	<i>Trianthem portulacastrum</i> L. Local name - Safed Santo Habit- Herb, Dicot	Roots Leaves	-It is also called horse pulses. -Roots are analgesic and spasmolytic. -Root juice is given in jaundice. -Leaves decoction given to antidote to alcoholic person.
40. MOLLUGINACEAE			
114 E	<i>Glinus lotoides</i> L. Local name - Sata Habit- Herb, Dicot	Fruits stem	-An Endangered herbal medicinal plant. -Fruits powder taken orally for relief in tapeworm. -Dried stem used for treatment of purgative, dysentery and cure of boils.
115	<i>Mollugocerviana</i> (L.) DC Local name - Chiryakibajri Habit- Herb, Dicot	Whole plant	-Whole plants dried in shade given orally to reduce inflammations. -It used as antiseptic.
41. ASTERACEAE			
116	<i>Acanthospermum hispidum</i> DC. Local name - Dokanta Habit- Herb, Dicot	Whole plant	-Whole plant is used in relief of diarrhea. -The roots used in chest pain.
117	<i>Ageratum conyzoides</i> L. Local name - Visadodi Habit- Herb, Dicot	Whole plant	-The decoction or infusion of whole plant given in stomach ailments. -folk remedy includes anti-itching and mouth wash for tooth ache.
118	<i>Artemisia meritima</i> L. Local name - Bana Habit- Herb, Dicot	Whole plant	-The decoction or infusion of whole plant given in inflammations in liver and to improve memory. -It is also used in gastro-intestinal disorders.

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119	<i>Blepharisrepens L.</i> Local name - Bhangri Habit- Herb, Dicot	Whole plant	-It used in fracture of bones and boils. -Seeds are applied on open cuts and wounds.
120	<i>EchinopsechinatusRoxb.</i> Local name - Kantalo Habit- Herb, Dicot	Whole Plant	-Root and seeds are aphrodisiac -Powdered roots are applied over wound of cattle's for early healing.
121	<i>Ecliptaprostrata (L.) Ment.</i> Local name - Bhringraj Habit- Herb, Dicot	Whole Plant	-Plant juice improves liver & spleen disorders. -Decoction of herb is used to rinse hair to maintain the black colors.
122	<i>Eclipta alba (L.) Hassk.</i> Local name - Bhangra Habit- Herb, Dicot	Whole Plant	-It is used in gastrointestinal disorder, liver disorder. -It is also used in relief of hair loss and hair growing and cooling agent for headache. -It is also used in spleen enlargement. -The aqueous extract is used as memory enhancement agents. - The aqueous extract of leaf has been ability to reduce aggression and heat stock from "loo".
123	<i>Spharanthusindicus L.</i> Local name - Gorakh mundi Habit- Herb, Dicot	Whole Plant	-The bark powder given orally and apply externally to cure piles. -Leaves and seeds ground in paste and applied for skin disease. -Root powder given orally to kill intestinal worm. -Decoction of root used in chest pain, cold cough. -Juice of flower is also used as liver tonic. -Raw leaf chewed in oral ulcer. -Whole plant paste with coconut oil used in pain and swelling. -leaf extract with ground black pepper used as ear drop.
124	<i>Pluchealanceolata (L.)Gaert.</i> Local name - Rasna Habit- Herb, Dicot	Whole Plant	-It used in inflammations and bronchitis. -Aqueous extract of whole plants used as nervous tonic.
125	<i>Vernoniacinerea(L.) Less.</i> Local name - Sahadevi Habit- Herb, Dicot	Whole Plant	-Dried whole plant used for treatment of purgative, dysentery and cure of boils. -It also used for ailment of skin disease.

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126	<i>Launaeaprocumbens</i> Willd. Local name - Papra Habit- Herb, Dicot	Whole Plant	-folk medicinal plant rapidly used in inflammatory disorder. -Leaf and flower used in skin disease.
127	<i>Tridexprocumbens</i> L. Local name Shatia Habit- Herb, Dicot	Whole Plant	-Decoction of whole plant is used in nostril swelling. Leaf extract used to treat wound and stop bleeding.
42. PLUMBAGINACEAE			
128	<i>Plumbagozeylanica</i> L. Local name - Chitrak Habit- Herb, Dicot	Root	-It is used in indigestion, diarrhea, piles and spleen enlargement. -The fresh root juice taken with Cow's urine to relieve internal piles. -The decoction of root bark taken orally twice in day for relief in abdominal disorder.
43. SAPOTACEAE			
129	<i>Madhucaindica</i> J. F. Gmelin. Local name - Madhuca, Mahua Habit- Tree, Dicot	Fruits Leaf seeds flower	-“Mohari” (Local liquor) mixed with curcuma powder taken at night during cough, cold and bronchitis. -flower eaten by tribal women to increase lactation. -Leaf ash mixed with butter and dressing on wound. -Seed oils taken in constipations and also in etching.
130	<i>Manilkara hexandra</i> (Roxb.) Dub. Local name - Khirni Habit- Tree, Dicot	Fruit bark	-It is useful in epilepsy and skin disease. -Milky latex used to wound healing.
131	<i>Mimusops selengi</i> L. Local name - Maulakshi Habit- Tree, Dicot	Fruits Flower Bark leaf	-Unripe fruits and flowers along with astringent used to prepare lotions for sores and wounds. -The bark used as a cooling cardio tonic. -The leaf smog given in asthma.
44. SALVADORACEAE			
132	<i>Salvadura oleoides</i> Decne. Local name - Kharo Jal Habit- Tree, Dicot	Stem Leaves Young branch	-Sweet edible fruit are eaten raw which has cooling effect. -Leaves are used to cure cough. -The young branch and roots are used as tooth brush.
133	<i>Salvadora persica</i> L. Local name - Mithe Jal, Pilu Habit- Tree, Dicot	Whole Plant Stem Leaves Young branch	-Decoction of leaves is used in constipation problem. -Young branches are use as toothbrush to cure the problem of toothache and gums. -Fruits used in stomach disorder and help in digestion.
45. APOCYNACEAE			

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134	<i>Alstoniascholaris</i> (L.)R. Br. Local name- Saptparni Habit- Herb, Dicot	Whole plants	-It is used as bitter tonic, aphrodisiac, febrifuge and stimulant. -Bark used as tea in chronic diarrhea.
135	<i>Carissa carandas</i> Wight. Local name - Karonda Habit- Shrub, Dicot	Fruits roots	-fruits mainly used for making pickle, jelly, jam and chutney. -The ripe fruit emits gummy latex. It is cooked so it used as refreshing cooling drink in summer. -Root is pulverized with horse urine, lime juice and camphor oil as remedy for itching in cattle.
136	<i>Catharanthusroseus</i> (L.) G. Don Local name - Sadabahar Habit- Herb, Dicot	Whole plants	-Decoction of whole plant used to regulation blood circulation. -The flower and leaf extract used in lowering of blood sugar.
137	<i>Neriumindicum</i> L. Local name - Kaner Habit- Shrub, Dicot	Flower Leaf	-A green dye from the flower used in treatment of skin and also possess wound healing properties.
138	<i>Pergulariadaemia</i> (Forsk.) Chiov. Local name - Gadariakibel Habit- Climber, Dicot	Whole Plants Leaf root	-Decoction of whole plant used in snake bite, cough and chest pain. -Root and leaves shows digestive properties.
139	<i>Plumeriarubra</i> L. Local name - Champa Habit- Shrub, Dicot	Bark	-Bark rubbed on tongue for its cleaning. -Bark paste applied externally for wound healing.
140	<i>Thevetiaperuviana</i> (Pers) Merrill Local name - PiliKaner Habit- Shrub, Dicot	Flower Leaf Fruits	-Flowers used in MaaSarswati puja. -Leaves used as insecticides. -Used in ointment of insect killer. -Latex put in dental cavity to cure tooth ache.
141	<i>Wrightiatinctoria</i> (Roxb.)R. Br. Local name - BhakarAak Habit- Tree, Dicot	Bark Leaf	-Bark is used as tonic as aphrodisiac and also in piles. -Bark crushed with Ailanthus excels leaf paste applied on chronic wound. -Leaf paste in swelling of gums and leaf juice mixed with lime and turmeric powder used for swelling.
46. ASCLEPIADACEAE			
142	<i>Calotropisgigentia</i> (L.) R. Br. Local name - SafedAak Habit- Shrub, Dicot	Leaf Latex	-The herbal medicines are used by tribals of Pali district through the traditional healer with strong spiritual belief. -The leaf, latex and roots used as remedy for snake bite and scorpion sting.

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143	<i>Calotropisprocera</i> (Ait.) Ait. Local name -Aark,Aak, RaktakAak Habit- Shrub, Dicot	Flower Latex	-Flower and dry latex mixed with sugar in a jar and place in sunlight for a week and orally taken in treatment of piles. -Pieces of root dipped in overhead water tank of washroom flesh for remedy of piles.
144	<i>Ceropegia bulbosa</i> Roxb. Var. <i>Bulbosa</i> Local name - Jangli Kanda Habit- Herb, Dicot	Bulb	-Tribals eat its bulb for tonic. -Tuber when boiled loss their bitterness and when pulped with milk form a sweet mucilaginous mixture which is highly nutritive.
145	<i>Leptadeniapyrotechnica</i> Decne Local name - Jivanti, Kheep Habit- Shrub, Dicot	Whole Plants	-Its warmed juice taken orally in jaundice. -Macerated seed lotion used as eye lotion. -Stem juice used as remedy of flew.
146	<i>Leptadenia reticulata</i> (Retz.) Wight. Local name - Belwala Kheep Habit- Tree, Dicot	Whole plants Root	-Roots used in herbal remedy to cure ear, nose and skin infection. -Flowers good for eye sight. -Whole plants used as antibacterial activity. Ayurvedic tablet "leptadene" made up of the plant.
147	<i>Pergularisdaemia</i> (Forssk) Chiov Local name - Bhainsasingha Habit- Shrub, Dicot	Leaf Fruits	-Leaf juice with honey and ginger used to cure fever, cough, tiredness, shivering and urinary complaint also. -Leaf crushed in feed and given to cattle for wound healing. -Fruits are digestive and thermogenic.
148	<i>Sarcostemma acidum</i> (Roxb.) Voigt. Local name - Somlata Habit- Shrub, Dicot	Whole plant	-Used in burning micturition. -The extract of whole plant given orally in rheumatism. Latex is used in wound and cuts. -Pulpy mesocarp used as nasal drops.
149	<i>Tylophora hirsute</i> (Wall.) Wight. & Arn Local name - Antamul. Damabel Habit- Shrub, Dicot	Leaf, root	-Fresh roots expectorant in whooping cough & bronchitis. -Root paste is externally applied to relieve gout pain. -Leavers are effective in the treatment of allergy.
150	<i>Wattakakavolubills</i> L. Local name - PilovanBel Habit- Shrub, Dicot	Leaf	-Leaf paste mixed with common salt and applied on affected parts of body to treat all type of swelling.
47. PERIPLCACEAE			
151	<i>Cryptostegiagrandiflora</i> R. Br. Local name - Chabukchari Habit- Climber, Dicot	Latex	-Latex applied externally on cuts and boils. -Stem extract given orally in influenza.
48. BORAGINACEAE			

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152	<i>Tricodesmaindicum</i> var. <i>amplexicaule</i> Cook. Local name - Sial Kanto Habit- Herb, Dicot	Leaves	-Useful in burning sensation and skin disease.
49. EHRETIACEAE			
153	<i>Cordiadichotoma</i> Forster. Local name -Lasora Habit- Tree, Dicot	Bark Leaf Fruits	-Bark, flower and leaves used in fever and diarrhea. -Leaves and fruits also useful in ulcer.
154	<i>Cordiagara</i> Forsk. Local name - Gundi Habit- Tree, Dicot	Leaves Fruits	-Leaves and fruits used in digestive disorders. -Leaves are also wound healing.
50. CONVOLVULACEAE			
155	<i>Argyreia nervosa</i> (Burm.f.)Bojer Local name- Ghavbel Habit- Climber, Dicot	Leaves	-Leaves used as poultice wound and skin disease. In folk medicine it is called "Ghavbel".
156	<i>Convolvulus microphyllus</i> L. Local name Shank Pushpi Habit- Herb, Dicot	Whole Plant	-The whole plant is a source of an important drug in Ayurveda known as "Shank -Pushpi".
157	<i>Cressacretica</i> L. Local name - Rudenti Habit- Herb, Dicot	Whole Plant	-It is popular halophytic folk lore medicinal plant for ailment for diabetes, asthma and also as tonic. It also useful in constipation.
158	<i>Evolvulusalsinoides</i> L. Local name - Sankhpushpi Habit- Herb, Dicot	Whole Plant	-Decoction of Whole Plants is useful in brain tonic.-Flowers useful for treating the uterine bleeding. -Seeds oil promotes the growth of hair.
159	<i>Cuscutareflexa</i> Roxb. Local name - Amarbel Habit- Climber, Dicot	Whole Plant	-Plant paste warmed with mustered oil and wheat flour and applied on joint pain. -It used in leukoderma.
51. SOLANACEAE			
160	<i>Datura metal</i> Linn. Local name - Kala-datura Habit- Shrub, Dicot	Leaves	-The dried leaves and seeds are used as anti-spasmodic and in critical condition of asthma and whooping cough -Paste of leaves and seed oil is used to reduce rheumatic pains.
161	<i>Solanumnigrum</i> L. Local name - Makoy Habit- Herb, Dicot	Whole Plant	-Whole Plant is effective in chronic skin disease, such as acne, eczema. -Decoction of dried fruits is given to mothers after delivery.
162	<i>Solanumsurattense</i> Lam Local name - Bhurant Habit- Herb, Dicot	Whole Plant	-It is an important constituent of well-known Ayurvedic drug "Dasamula and Arkadhi". -Whole Plant extract is effective in bronchial asthma.

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163	<i>Withamiasomnifera</i> L. Local name- Aswagandha Habit- Herb, Dicot	Root, Seed, leaf	-Plant is considered aphrodisiac. -Fruits and seeds are diuretic. -The herbal message of oil mixture of ashwaganda leaves used in sleeplessness.
52. SCROPHULARIACEAE			
164	<i>Baccopamonnieri</i> (L.) Wettst. Local name - Brahmi Habit- Herb, Dicot	Leaves Flowers	-Dried powder used in memory enhancement. -Flowers are used for skin problems. -Leaf paste also used as memory enhancement agent.
165	<i>Lindenbergiaindica</i> (L.) Vatke Local name -Shankhi Habit- Herb, Dicot	Leaves	-Leaves used for skin eruption. -Leaves juice given oral for bronchitis.
53. BIGNONIACEAE			
166	<i>Tecomella undulate</i> (Sm) Seem. Local name Rohira Habit- Tree, Dicot	Leaf, Flower, Stem	-Paste of leaves stem is used in treatment of various skin disease -Leaf juice is mixed with water and used in pneumonia and typhoid -Flower gives us orange color herbal dye.
54. PEDALIACEAE			
167	<i>Pedaliium murex</i> L. Local name - Gokhru Habit- Shrub, Dicot	Fruits	-Fruits are aphrodisiac-Decoction of green fruit is useful for urine problem.
168	<i>Sesamumindicum</i> L. Local name - Til Habit- Herb, Dicot	Seeds	-Seed oil contains with vitamin e which is more useful for skin it beneficial for wrinkle in skin.
55. ACANTHACEAE			
169	<i>Adhotodavesica</i> Medic Local name -Vasa, Adusa Habit- Herb, Dicot	Whole plant	-The drug "Vasaka" is used in cough and asthma is a juice of its leaves. -The paste of leaf and stem is beneficial in heating wounds.
170	<i>Barleriaprionitis</i> L. Local name - Bajardanti Habit- Herb, Dicot	Leaves Stem Flowers	-The decoction of whole plant is used in the treatment of toothache and to cure bleeding in gums. -The stem Juice is useful in fever and cough.
171	<i>Blepharissindica</i> (Vahl.) Roth. Local name - Utangana Habit- Herb, Dicot	Seeds leaves	-Seeds are diuretic, expectorant and aphrodisiac. -Seeds boiled with milk and taken as tonic -Seeds and leaves are also given to cattle to increase milk production.
56. VERBENACEAE			

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172	<i>Vitexnegundo</i> L. Local name - Nirgundi Habit- Shrub, Dicot	Leaves Flower Seed	-Decoction of leaves used to relieve body pain -Flowers are used in fever. -Seeds considered cooling and used to treat skin disease.
57. LAMIACEAE			
173	<i>Ocimumcanum</i> Sims. Local name - Kali Tulsi Habit- Herb, Dicot	Floral buds	-The essential oil used in conjunctivitis, fever and headache. -It also used in antifungal activities.
174	<i>Ocimum sanctum</i> L. Local name - Tulsi Habit- Herb, Dicot	Leaf Seed	-Aqueous suspension of leaf is analgesic. -Essential oil is antifungal. -Leaf and seeds are common useful in fever, colic pain, bronchitis and asthma also. -Juice with honey given to children for cold and cough.
58. PLANTAGINACEAE			
175	<i>Plantago ovate</i> Ktze. Local name - Ishabgole Habit- Herb, Dicot	Seeds husk	-Herbal tea of husk used in sore throat and stomach irritation. -Seeds act as laxative it increase the volume of mucilage and increase volume of stool and soften intestine. -Roots are blood purifier.
59. NYCTAGENECEAE			
176	<i>Boerhaviadiffusa</i> L. Local name- Punarnava,santi Habit- Herb, Dicot	Whole Plant	-The "Punarnava" Ayurveda drug is prepared by whole plant. It is diuretic, antipyretic and laxative. -Fresh Juice of the plant given as blood purifier.
177	<i>Nyctanthes arbor-tristis</i> L Local name - Harsringar Habit- Shrub, Dicot	Leaf	-5-6 leaf and one leaf of <i>Piper betle</i> crushed together and given in cough and cure asthma. -Leaf paste applied on bed sores. -Leaf extract with lime water given empty stomach in constipation and stomach disorder.
60. AMARANTHACEAE			
178	<i>Achyranthusaspera</i> L.var-porphyristachya Hook Local name- Undo kanto Habit- Herb, Dicot	Whole plant	-The ash of dried plant have high percentage of potash, ` and used as antacid. -A bath with the decoction of whole plants to cure itching, and skin disease. -Seeds mixed with milk used as tonic.

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179	<i>Celosia argentea L.</i> Local name -SafedMurga Habit- Shrub, Dicot	Leaf flower	-Older leaf paste applied on ring worm infected area. - Leafused in mouth sores and eye. -Seeds used in ovarian and uterine disease.
180	<i>Suaedafruticose L.</i> Local name - Lunio Habit- Herb, Dicot	Leaf	-Leaf paste used as ointment for wound. - Alcoholic extract of whole plant is antibacterial.
61. POLYGONACEAE			
181	<i>Calligonumpolygonoides L.</i> Local name - Untphog Habit- Shrub, Dicot	Whole Plant	-The aqueous paste of whole plant is given orally to the person, who has taken heavy dose of opium -Flower buds are effective in sun-stroke. -Raita of inflorescence used in 'loo'.
62. ARISTOLOCHIACEAE			
182	<i>AristolochiabracetolataLamk.</i> Local name - Batakbel Habit- Herb, Dicot	Leaves	-Powder of dried plant is used as an anthelmintic, and anti-inflammatory. -Leaf juice mixed with mustard oil to cure skin disease like eczema.
63. LORANTHACEAE			
183	<i>Dendrophthoealcate (L. F.) Ett.</i> Local name - Banda patta Habit- Epiphyte, Dicot	Flower Leaves	-Decoction use for bronchitis and asthma. -Leaves used in chest pain.
64. EUPHORBIACEAE			
184	<i>Euphorbia caducifolia Haines.</i> Local name - Danda Thor Habit- Shrub, Dicot	Root, Latex	-The milky latex of plant is used as an expectorant. It is used locally as digestive and abortifacient. -Latex is externally applied to skin blisters and wounds.
185	<i>Euphorbia hirtaL.</i> Local name - Dudhi Habit- Herb, Dicot	Whole Plant	-It is used in bronchial infection, cough, and asthma. -Whole plant extracts cheeks diarrhea and gonorrhea. -The latex applied on eye lids in conjunctivitis.
186	<i>Euphorbia pulcherrimaWilld.</i> Local name - Lalpata Habit- Herb, Dicot	Whole Plant	-Extract of whole plant used as anti-inflammatory. -Its latex can used in skin disease
187	<i>Emblicaofficinalis Lam</i> Local name - Aanwala Habit- Shrub, Dicot	Fruits Leaf	-Fruits and leaves helpful in digestive system disorder, dyspepsia, gastritis, hyper acidity, constipation, colitis hemorrhoids and bleeding gums. -Traditionally this plant good immunomodulatory. -This is one of the strongest rejuvenate shrub in Ayurveda. - Fruits combination with Cow ghee is

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			called “rasayana”.
188	<i>Ricinus communis L.</i> Local name - Arandio Habit- Shrub, Dicot	Leaf Fruits	-The leaves increase the immune response of the human body against pathogen. -Oil used as germicides and insecticides.
65. CANNABINACEAE			
189	<i>Cannabis sativa L.</i> Local name - Bhang Habit- herb, Dicot	Leaves Flower stem	-The leaves are sedative, analgesic and anti-spasmodic. -This used insomnia, depression, neuralgia, asthma and dysentery. -It also used for lowering of blood pressure in glaucoma. -It also used as cooling agent.
66. MORACEAE			
190	<i>Ficus benghalensis L.</i> Local name - Vat, Bargad Habit- Tree, Dicot	Leaves Fruits Bark root	-The banyan symbolized Lord Shiva. -Leaf powder mixed with coconut oil and applied on affected places to treat wounds. -Bark is cooling agent and used in inflammations. -Paste of powder bark used in fistula.
191	<i>Ficus racemosa L.</i> Local name - Gular Habit- Tree, Dicot	Leaves Fruits Bark	-Leaf juice applied on head for hair rejuvenation. -Fruit used in leprosy. -Bark used in wash of spongy gum. -Latex used in stomach disorder. -Sap of root given in gonorrhoea.
192	<i>Ficus religiosa L.</i> Local name - Peepal Habit- Tree, Dicot	Leaves Fruits Bark	-Bark decoction is cooling used in skin disease and vomiting. -Leaf juice used in skin disease, migraine and eye problems. -Dried fruits used in tuberculosis.
67. LILIACEAE			
193	<i>Aloe vera L.</i> Local name - Gwarpatta Habit- Herb, Monocot	Juice Leaf pulp	-This plant is called <b>King of medicinal Plants</b> . -Drug “aloe” is prepared by the leaf of the plant. -It is externally applied on inflamed painful parts of the body. -Succulent pulp is used in eye-flew and also external applied in rheumatic arthritis. -The gel of pulp contains powerful antioxidants. -This plant is known for its antibacterial, antiviral and antiseptic properties. -Juice is also useful for diabetic patients. -It is useful in constipation.

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			-It is good in irritated or inflamed skin. -It helps in repair skin from most tender of wounds. -It helps in speed the process of healing to burns and other wounds.
194	<i>Asparagus racemosus</i> Willd. Local name - Shatavari Habit- Climber, Monocot	Tuber	-Tubers powder is an Aphrodisiac. - it is used in sweet dish in winter by local peoples. -It is given to increase breast milk after delivery
195	<i>Gloriosa superb</i> L. Local name - Langali, Raja raar Habit- Herb, Monocot	Flower Leaf bulb	-Leaf used in abdominal and general pain. -Flower used in chronic ulcer. -Bulb boiled with mustered oil and applied on cancerous wound.
196	<i>Urginea indica</i> (Roxb.) Kunt. Local name - Jangalipyaj Habit- Herb, Monocot	Tubers Bulb	-Dried powdered bulb is given in cardiac tonic in small doses. -It is used mainly in chronic bronchitis and asthma.
68. ARECACEAE			
197	<i>Phoenix sylvestris</i> (L.) Roxb. Local name - Khajoor Habit- Tree, Monocot	Fruits	-Fruits served as tonic and restorative.
69. POACEAE			
198	<i>Cenchrus biflorus</i> Roxb. Local name - Bhurant Habit- Herb, Monocot	Whole plant	-Plant decoction of fruits considered as diuretic. -Plants used as fodder by grazing animals.
199	<i>Cenchrus ciliaris</i> L. Local name - Dhaman Habit- Herb, Monocot	Whole plant	-Decoction used against inflammations, tooth ache and grippe in children.
200	<i>Cenchrus pteruri</i> (Kunth) Maire Local name - Lambio Bhurat Habit- Herb, Monocot	Whole plant	-Folk herbal remedy for animal purpose used against insects on skin.
201	<i>Cynodon dactylon</i> (L.) Pers. Local name - Durva, Doob Habit- Herb, Monocot	Whole plant	-‘Doob’ used as folk remedy for calculus, cough, diarrhea and head ache also. -Decoction used for eye infections. -Paste mixed with honey given in urine retention.
<b>TOTAL=</b>	<b>Families =69</b>	<b>Genera =178</b>	<b>Species =200</b>

The above check list is quite comprehensive and almost complete so far as the medicinal plants of Pali- district are concerned. It is quite evident that the flora of Pali- district is very rich from the point of view of medicinal properties. Quite a large number of these plants show a decline trend in their population density due to unscientific and

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uncontrolled method of their collection. The need of the hour is to make aware of the importance of this precious natural gift. Suitable methods are to be applied to protect these rare but very important medicinal plants.

## IV. CONSERVATION PRACTICES

The devastating propensities of goat and camel have been beautifully summarized in a Rajasthani Proverb: *“OontChhodeAkaro, BakriChhodeKankro”*

The erosion of plant biodiversity is a matter of global concern. One by one the building blocks of entire ecosystem are disappearing. The 2008 IUCN Red Data list shows that in India hundreds of taxa are under the list of threatened and at the risk of extinction. The life of tribal people and rural communities of Pali-district are closely interwoven with their environment and local flora. It becomes the integrated parts of their culture, custom and folklore. These A large number of plants are being used by tribal to cure human and veterinary ailments, thus they co-relate it with god or spiritual power or religious ethics. The plants growing around them form an integral part of their culture and customs.

It is our duty to recognize and support the conservational strategies adopted by tribal and rural people by the term of faith, myths, taboos, tradition, religious aspect, sacred grove etc. Conservation of threatened species is the responsibility of each and everyone's. We are needed.

## V. DISCUSSION

After thorough investigation in different habitat and localities of Pali-district it was evident that 200 ethnobotanical important medicinal species from 178 genera belonging to 69 families were found to be widely used by rural people in different ways against various ailments in Pali-district.

Further it has been observed that the leaves are the most frequently utilized plants parts against various ailments. Preparation of leaf decoction is the most common traditional formulation prepared followed by paste and application of fresh juice. The ranking of the parts of plants being used against different is as follows- leaf > whole plants > roots > stem > flower > seeds > tuber > pods > gum > bark > latex. A few parts were found to be effective against more than one disease. The data compiled was compared with pertinent published literature Choudhary et al (2008 & 2008), Gena and Sharma (1998), Jain and Jain (2016) and Kapoor and Swami (2016). The present investigation proves that ethno medicinal knowledge is also important from humanitarian point of view. It is our indigenous system of medicine among rural people. It is the rich medicinal repository of Pali-district.

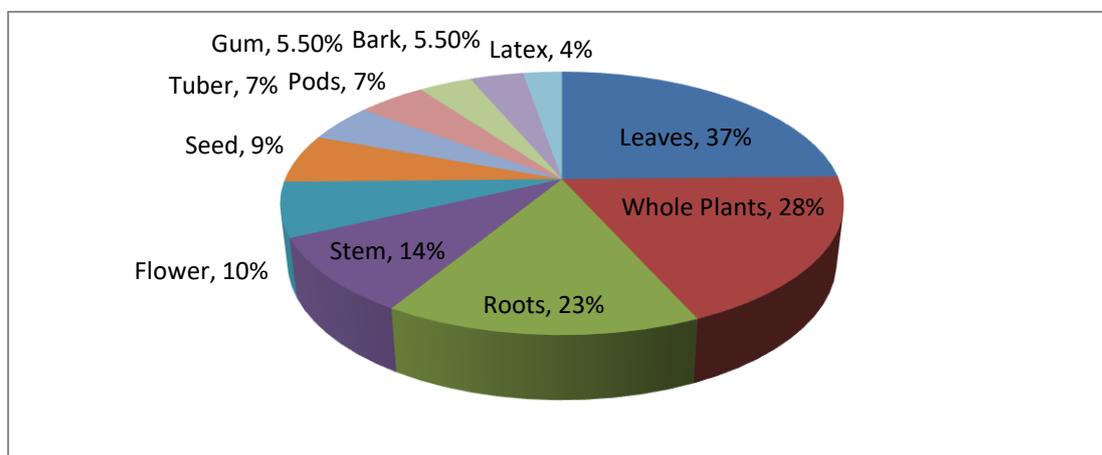


Fig. 2 Relative contributions of various plants parts being used as medicine

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