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EXPLORATION OF THERAPEUTICALLY IMPORTANT MEDICINAL PLANTS IN AMBEDKAR NAGAR, SANT KABIR NAGAR AND SHIDDHARTHA NAGAR DISTRICTS OF UTTAR PRADESH AND NEED FOR CONSERVATION

Dr. Rama Shankar*[1], S.K. Lale[1], R.K. Mudaiya[2], S.K. Gaur[3] and K.S. Dhiman[4]

[1]Regional Ayurveda Research Institute Gwalior Road, Jhansi India- 284003.

[2]Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Government of India, New Delhi-110058.

[3]M.S. Regional Ayurveda Research Institute for Endocrinal Disorders, Jhotwara Road, Jaipur, India- 302016.

[4]Director General, C.C.R.A.S., Ministry of AYUSH, Government of India, New Delh-110058.

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***Corresponding Author**
Dr. Rama Shankar
Regional Ayurveda Research Institute Gwalior Road,
Jhansi India- 284003.

ABSTRACT

Paper deals with the therapeutically important medicinal plants from Ambedkar Nagar, Sant Kabir Nagar and Shiddharth Nagar forest divisions of Uttar Pradesh. Exploration of the forest areas of three adjoining districts have been carried out during 2014 and 2016. During exploration records of therapeutically important medicinal plants with its Global Positioning System and potential in the field has been recorded. The important medicinal plants like *Aegle marmelos, Aristolochia indica, Bacopa monnieri, Celastrus paniculata, Centella asiatica, Desmodium gangeticum, Gloriosa superba Helminthostachys zeylanicca, Holarrhena antidysenterica, Oroxylum indicum, Solanum nigrum, S. incanum, S. virginianum, Uraria picta* etc. were recorded which can be undertaken for mass cultivation by the farmers by adding some other medicinal plants having commercial value and being commercially used with some other plants viz. Shalaparni (*Desmodium gangeticum*) and Prishna parni (*Uraria picta*) having trade of whole plant instead of root described as Dashamula ingredients. Plants of *Helminthostachys zeylanica* is traded in the name of Kamaraja. The study area is widely occupied by plants of *Aegle marmelos* and *Holarrhena antidysenterica* to be used for commercialization.

INTRODUCTION

Uttar Pradesh the largest state of India is located in the northern part of India bordering with state of Bihar, in the east, Uttaranchal and Delhi in the North and Madhya Pradesh in the West and South. It covers an area of mostly plains of Upper Gangatic plains and Bundelkhand just adjacent to Madhya Pradesh with a forest cover of tropics only. It occupies a land area of 2716425 Square Kilometers and comprises of 75 districts. The areas covered under extensive exploration in Uttar Pradesh are Ambedkar Nagar, Sant Kabir Nagar and Shiddharth Nagar, falling into Tarai belt except Ambedkar Nagar distinguished with the prominent river Ghaghra and its sister rivers Kuwano and Rapti in Sank Kabir Nagar and Siddharth Nagar districts. Ambedakar Nagar District is surrounded by Azamgarh in the east, Sant Kabir Nagar in north, Faizabad in west and Jaunpur and partly Sultanpur in the south whereas Sant Kabir Nagar and Siddharth Nagar districts are surrounded by Maharajganj in the east, Nepal in the north, Shrawasti in the east and Ambedkar Nagar and partly Faizabad in the south. Major areas are occupied by non tribal people except few tribal areas with Tharu tribes and several groups covers the migrants named the Nepalis in the northern part of Siddharth Nagar.

As per the State of Forest Report 2003, published by the Forest Survey of India, Uttar Pradesh has a forest cover of 21.833 km^2, which is 5.8% of the total geographical area of the state. These forests receive moderate rainfall and support a reasonable of floral and faunal biodiversity.

Exploration of ethno medicinal plants in Ambedkar Nagar, Sant Kabir Nagar and Siddharth Nagar forest areas has been made by the authors during September, 2013, June and September 2016 and the paper represents the common as well as commercially viable medicinal plants in the explores areas. However, commercial exploration of medicinal plants with GPS location with pharmaceutical potential for conservation and cultivation of important medicinal plants has been described for the first time in the concerned Forest divisions falling under sub hill areas of Uttar Pradesh.

METHODOLOGY

Extensive exploration of the different districts falling under Ambedkar Nagar, Sant Kabir Nagar and Siddharth Nagar, the three forest divisions of Uttar Pradesh has been made. Records of the collections have been observed with Global Positioning System (GPS) at different places with their distribution has been recorded at different spots. The Herbarium

vouchers were made by drying poisoning and mounting on Herbarium sheets and deposited in the Herbarium of Regional Ayurveda Research Institute (Acronym JHS). Authenticity of Herbarium was made after consulting the Herbarium of the Institute already matched confirmed Herbarium sheets kept in the Herbarium of Botanical Survey of India, Allahabad. During field observation, suitability of medicinal plants with high demand and commercial values as well as methods for conservation and cultivation has been studied by bringing the sufficient germ plasm in the Garden of Regional Ayurveda Research Institute Jhansi. Attempts have also been made to know the potential of highly used medicinal plants in the area and the attempts made for commercialization as well as conservational aspects.

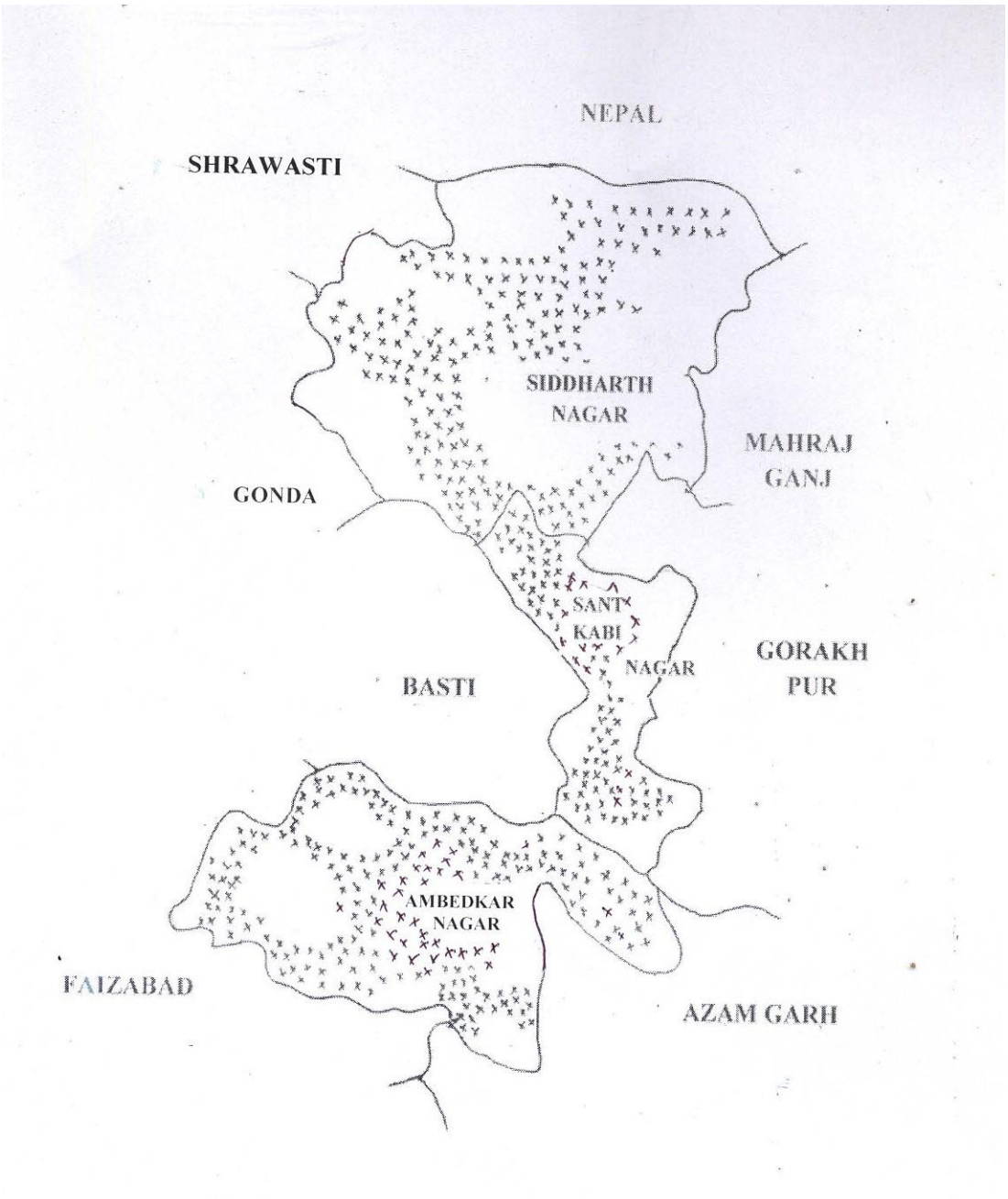
Observation

Extensive exploration of medicinal plants in Uttar Pradesh has been made in different season with an emphasis on pressure of exploitation and status as per GPS records for most of the forest areas in the state. The important medicinal plants distributed in the state are Medicinal plants are widely used by few traditional healers as well as collectors for trade of only *Helminthostachys zeylanica*. Cultivation of some of the medicinal plants is also in practice.

Exploration

Exploration of medicinal plants needs the identifying areas for maximum occurrence of commercially viable species of medicinal plants, potential of such species in a particular area for commercial utility, less occurring medicinal plants species whose conservation is the need of time, utilization of medicinally important species under local health practices or other ways of use like food, ornamental or timber etc. and the land suitable for undertaking medicinal plants cultivation. During various explorations in the state of Uttar Pradesh all such types of status has been recorded. During course of exploration it was observed that local traditional healers are undertaking treatment of weakness jaundice, fever etc. by the use of locally available herbs like *Acacia nilotica, A.catechu, Achyranthus aspera, Adiantum lunulatum, Adina cordifolia, Aegle marmelos, Alangium salvifolium, Amorphophallus campanulatus, Andrographis paniculata, Argyreia nervosa, Aristolochia indica, Callicarpa macrophylla, Carissa carandas,Celastrus paniculata, Centella asiatica, Chrysopogon zizanioides, Cissampelos pareira, Coccinia indica Curcuma longa, Curculigo orchioides, Cuscuta reflexa, Datura stramonium, Desmodium gangeticum, Eclipta prostrata, Helminthostachys zeylanica, Hemidesmus indicus, Holarrhena antidysenterica, Mallotus philippensis Oroxylum indicum, Phyllanthus amaras, Plumbago zeylanica, Putranjiva*

Roxburghii, Scheleira oleosa, Semicarpus anacardium, Sida acuta, S. cordifolia, S. rhombifolia, Smilax glabra Solanum nigrum, S viarum, Trichosanthes dioica, etc. Commercial exploitation of *Holarrhena antidysenterica, Mallotus philippensis, Helminthostachys zeylanica etc.* is at highest level. People are collecting plants in unplanned and non scientific manner. *Aegle marmelos* and *Mallotus phillippensis* is abundantly occurring in Shravasti and Gonda forest divisions and needs commercialization Distribution of medicinal plants in different forest areas as per GPS markings is described in table-1.



Map of Ambedkar Nagar, Sant Kabir Nagar and Siddharth Nagar showing the areas under study.

Table 1: Medicinal Plants of Ambedkar Nagar, Sant Kabir Nagar and Shiddharth Nagar with its GPS distribution etc.

Sl. No.	Botanical Name	Collection No.	Locality	Habit/ Habitat	Vernacular name and Actionable properties		GPS Data		
					Sanskrit Name	Action	Siddharh Nagar	Sant Kabir Nagar	Ambedkar Nagar
1	*Abrus precatorius* L.	9359	Tiwaripur Sabana	Climber	Gunja/ Ghumchi	Gastrointestinal diarrhoea including dysentery	N27^{0}20.325 E082^{0}41.164	N26^{0}27.233 E082^{0}26.033	N26^{0}27.233 E082^{0}26.033
2	*Abutilon indicum* G. Don	9196	Tanda Baskhari	Herb	Atibala/ Kanghi	Aphrodisiac	N27^{0}26.416 E082^{0}57.755	N26^{0}51.392 E083^{0}02.831	N25^{0}30.917 E082^{0}42.025
3	*Acacia catechu* (L.f.) Willd.	7447	Sadda (SN)	Tree	Khadir/ Kattha	Hypoglycemic	N27^{0}26.416 E082^{0}57.755		
4	*A. concinna* (Willd.) DC.	9342	Pandey Paikauli	Climber	Saptala/ Shikakai	Respiratory	N27^{0}27.191 E083^{0}10.182		N26^{0}33.193 E082^{0}21.709
5	*A. leucophloea* (Roxb.) Maslin, Seigler & Ebinger	9485	Pachpokhri (SKN)	Tree	Babool	Anticaries and antiplaque agent	-	N26^{0}51.291 E083^{0}03.212	
6	*A. nilotica* (L.) Delile	9272	Kaithauli	Tree	Babool	Anticaries and antiplaque agent	N27^{0}15.307 E082^{0}53.684		N26^{0}31.299 E082^{0}47.273
7	*Acalypha indica* L.	9219	Tanda	Herb	Haritmanjjari/ BhangraiyaKhohli	Respiratory			N25^{0}31.472 E082^{0}40.334
8	*Achyranthes aspera* L.	9236	Tanda Daulat H Patti	Herb	Apamarga/-	Gastrointestinal	N27^{0}23.397 E083^{0}01.461	N26^{0}51.078 E083^{0}02.949	N25^{0}31.940 E082^{0}40.747
9	*A. bidentata* Blume.	7450	Sadda (SN)	Do	-	Gastrointestinal		N27^{0}26.416 E082^{0}57.755	
10	*Acmella oleracea* (L.) R.K. Jansen	7460	Sadda (SN)	Herb	Akarkara/-	Anticaries	N27^{0}26.416 E082^{0}57.755		

11	*A. paniculata* (Wall. ex.DC.) R.K. Jansen	9362	Tiwaripur Sabana	Herb	Akarkara	Anticaries			N26^{0}27.256 E082^{0}25.091
12	*Aegle marmelos* Correa	9345	Pandey Paikauli (AN), Sadda (SN)	Tree	Bilva/Bel	Gastrointestinal/diarrhoea, dysentery, ulcer	N27^{0}26.416 E082^{0}57.755	N26^{0}51.154 E083^{0}04.343	N26^{0}33.301 E082^{0}21.643
13	*Ailanthus excela* Roxb.	9194	Faizabad Gonda road	Tree	Arlu/-	Fever/ antipyretic			
14	*Alangium salvifolium* (L. f.) Wangerin	9284	Tanda –Hirapur	Shrub	Ankola/ Akola, Dhera	Gastroinntestinal/ intestinal worm infestation	N27^{0}27.191 E083^{0}10.182	N26^{0}51.085 E083^{0}04.232	N26^{0}31.729 E082^{0}44.908
15	*Albizzia lebbeck* Benth.	9321	Tanda- Hirapur	Tree	Shirish/ Sirsa	Allergy	N27^{0}26.479 E083^{0}07.484		N26^{0}31.630 E082^{0}46.066
16	*Alstonia scholaris* R. Br.	9322	Tanda- Hirapur	Tree	Saptaparna/ Chhitoni	Antipyretic	N27^{0}22.248 E083^{0}02.537		N26^{0}31.630 E082^{0}46.066
17	*Alternanthera sessilis* (L.) R.Br.	9298	Hirapur (AN)	Herb	Matsyakshi	Gastrointestinal		N26^{0}51.078 E083^{0}02.949	N26^{0}31.630 E082^{0}46.066
18	*Amaranthus spinosus* L.	9302	Hirapur (AN)	Herb	Tanduliyak/ Kanteeli Chaulai	Gastrointestinal/ digestion	N27^{0}23.252 E083^{0}10.495		N26^{0}31.582 E082^{0}46.433
19	*A. viridis* L.	9211	Tanda Daulat H Patti	Herb	-/ Chaurai	Gastrointestinal /pediatric		N26^{0}51.078 E083^{0}02.949	N25^{0}30.947 E082^{0}40.865
20	*Amorphophalus campanulatus* (Roxb.) Bl.	9210	Tanda Daulat H Patti (AN) Rudauli (SKN)	Herb	Shurana/ Oal, Jamikand	Gastrointestinal	N27^{0}05.269 E082^{0}33.516	N26^{0}51.220 E083^{0}04.447	N25^{0}30.947 E082^{0}40.865
21	*Ampelopteris prolifera* (Retz.) Copel.	9340	Pandey Paikauli	Herb fern	-/ Patali Amwala	Skin			N26^{0}33.442 E082^{0}21.554
22	*Anaphalis contorta* (D.Don)	9506	-Do-	Herb	-	Stinging	-	N26^{0}51.209 E083^{0}04.519	

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23	*Andrographis paniculata* Nees.	7550	Chetia (SN)	Do	Kalmegh/-	Gastrointestinal /diarrhea, dysentery, liver protection, cirrhosis	N7^{0}15.307 E082^{0}53.684		
24	*Anisomeles indica* O.Ktz.	7503	Bird Pur (SN)		Sprkka/-	Gastrointestinal	N27^{0}26.530 E083^{0}07.401		
25	*Annona squamosa* L.	9332	Maidighat	Shrub	Gandgatra/ Shareefa	Gastrointestinal/ nutritious	N27^{0}05.269 E082^{0}33.516		N26^{0}31.269 E082^{0}50.469
26	*Argemone Mexicana* L.	9243	Tanda Daulat H Patti	Herb	Swarnakshiri/ Bhadabhad	Respiratory, eye	N27^{0}05.269 E082^{0}33.516		N25^{0}31.972 E082^{0}40.334
27	*Aristolochia indica* L.	9450	-Do-	Climber	Ishvari/-	Antipyretic	N27^{0}26.524 E083^{0}07.409	N26^{0}51.114 E083^{0}02.879	
28	*Artemissia scoparia* Wall.	7634	Banganga River	Do	Nagdamni/	Fever	N27^{0}09.420 E082^{0}28.398		
29	*Artocarpus heterophyllus* Lam.	9323	Airampur	Tree	Panas/ Katahal	Aphrodisiac	N27^{0}23.397 E083^{0}01.461		N26^{0}30.665 E082^{0}48.574
30	*A. lakoocha* Roxb.	9358	Tiwaripur Sabana	Tree	Lakooch/ Badahal	Gastrointestinal	N27^{0}26.416 E082^{0}57.755	N26^{0}51.392 E083^{0}02.831	N26^{0}27.197 E082^0.26.059
31	*Arundo donax* L.	7575, 9373	Chetia (SN), Jalalpur Malipur (AN)	Herb	Nala/ Narkat	Urinary/ kidney and bladder	N27^{0}16.038 E082^{0}53.101		N26^{0}14.741 E082^{0}40.091
32	*Asparagus adscendens* Roxb.	7524	Alida Pur (SN)	Climber	-	Aphrodisiac	N27^{0}22.248 E083^{0}02.537		
33	*A. racemosus* Willd.	7629	Bhadariya (SN)	Climber	Satavari/Satavar	Gastrointestinal/ galactagogue, ulcer	N27^{0}05.513 E082^{0}58.51		
34	*Asteracantha longifolia* Nees	9371	Jalalpur Malipur	Herb	Kokilaksh/-	Urogenital	N27^{0}23.397 E083^{0}01.461		N26^{0}14.741 E082^{0}40.091

35	*Azadirachta indica* A. Juss.	9241	Tanda (AN)	Tree	Neemba/ Neem	Gastrointestinal / ulcer , fever	N-27^{0}18.934 E082^{0}51.934		N25^{0}31.472 E082^{0}40.334
37	*Bambusa aurndinacea* Willd.	9517	Kapilvastu (SN) Bharuaya (SKN)	Herb	Vansha/Bans	Respiratory	N27^{0}26.479 E083^{0}07.484	N26^{0}51.228 E083^{0}04.359	N25^{0}31.960 E082^{0}40.872
38	*Barringtonia acutangulata* (L,) Gaertn.	9519	Bharuaya (SKN)	Tree	Nichul/ Piniha	Respiratory	N27^{0}26.416 E082^{0}57.755	N26^{0}51.295 E083^{0}04.025	
39	*Basella rubra* L.	9217	Tanda Daulat H Patti	Climber	Upodika/ Pataki, Putika	Gastrointestinal nutritious	N27^{0}18.934 E082^{0}51.934	N26^{0}51.247 E083^{0}04.326	N25^{0}31.940 E082^{0}40.747
40	*Bauhinia variegata* L.	9293	Hirapur (AN)	Tree	Kanchanar/-	Thyroid	N27^{0}18.934 E082^{0}51.934		N26^{0}31.630 E082^{0}46.066
41	*Benincasa hispida* (Thunb.) Cogn.	7456	Sadda (SN)	Climber	Kusmanda/-	Gastrointestinal/ laxative	N27^{0}26.416 E082^{0}57.755		
42	*Blumea lacera* (Burm. f.) DC.	7507	Birdpur (SN)	Herb	Kukuradru/-	Gastrointestinal/ piles	N27^{0}26.530 E083^{0}07.401		
43	*Boerhaavia diffusa* L.	9246	Tanda Daulat H Patti	Herb	Punarnava/ Gadahpunna	Diuretics, cardiac/ hypertension and oedema , calcium channel antagonist	N27^{0}23.252 E083^{0}10.495		N25^{0}27.830 E082^{0}40.738
44	*Bombax ceiba* L.	9324	Tanda- Hirapur	Tree	Shalmali/ Semal	Urogenital and uterine stimulants	N27^{0}23.397 E083^{0}01.461		N26^{0}31.630 E082^{0}46.066
45	*Borassus flabelifer* L.	9327	Hirapur	Tree	Tal/ Tarkul	Urogenital/ stimulant /sexual	N27^{0}27.191 E083^{0}10.182		N26^{0}31.630 E082^{0}46.066
46	*Bridelia retusa* Spreng.	7526	Aidilpur (SN)	Do	-	Gastrointestinal /astringent	N27^{0}22.248 E083^{0}02.537		
47	*Butea monosperma* (Lam.) Kuntz.	9204	Tanda	Shrub	Palash/ Dhaak	Urinary			N25^{0}30.191 E082^{0}42.025

48	*Caesalpinia bonduc* (L.) Roxb.	7497, 9394	Kakarahwa (SN) Jalalpur (AN)	Shrub	Lata Karanj, Kuberaksh/ Kanji	Gastrointestinal diarrhoea dysentery, fever/	N27^{0}27.191 E083^{0}10.450	N26^{0}51.078 E083^{0}02.949	N26^{0}18.664 E083^{0}04.314
49	*Cajanus cajan* (L.) Millsp.	9207	Tanda Daulat H Patti	Herb	Adhaki/ Arhar	Lactation		N26^{0}51.198 E083^{0}04.583	N25^{0}30.917 E082^{0}42.025
50	*Calamus rotang* L.	7498	Kakarahawa (SN)	Do	Vetra/-	Fever	N27^{0}27.191 E083^{0}10.450		
51	*Callicarpa macrophylla* Vahl.	7633	Banganga River side (SN)	Shrub	Priyangu/ -	Joint pain / rheumatism	N7^{0}09.420 E82^{0}28.398		
52	*Calotropis gigantea* (L.) R. Br. ex. Ait.	9229	Tanda Daulat H Patti	Shrub	Shvetark/ Safed madar	Respiratory /asthma, broncholytic			N25^{0}31.940 E082^{0}40.747
53	*C. procera* (Ait.) R.Br.	9242	Tanda Daulat H Patt	Shrub	Raktark/ Madar	Respiratory/ asthma, broncholytic	N27^{0}23.397 E083^{0}01.461		N25^{0}31.972 E082^{0}40.334
54	*Cannabis sativa* L.	9214	Tanda Daulat H Patti	Herb	Vijaya/ Bhanga	Gastrointestinal/ dysentery, analgesic	N27^{0}18.934 E082^{0}51.934	N26^{0}51.228 E083^{0}04.359	N25^{0}31.940 E082^{0}40.747
55	*Canna orientalis* Rosc.	9201	Tanda Daulat H Patti	Herb	Vaijanti/-	Urinaty / diuretic			N25^{0}30.191 E082^{0}42.025
56	*Capparis sepiaria* L.	9286, 9350	Tanda –Hirapur Pandey Paikauli (AN)	Ascendant	Gridhanakhi/ Chayruka	Boil/ swelling			N26^{0}31.729 E082^{0}44.908
57	*C. zeylanica* L.	9357 9524	Tiwaripur Sabana	Scandant Climber	Vyagranakhi/ Kareruwa	Gastrointestinal	N27^{0}27.191 E083^{0}10.182	N26^{0}51.295 E083^{0}04.025	N26^{0}27.197 E082^0.26.059
58	*Cardiospermum halicacabum* L.	7600 9487	Bahlukoni (SN) Pachpokhri (SKN)	Climber	Karnasphotak/ Karnasphota	Joint pain/ rheumatism	N27^{0}20.325 E082^{0}41.164 -	N26^{0}51.292 E083^{0}02.831	
59	*Carissa carandas* L.	9516	Bharuaya (SKN)	Shrub	Karmard/ Karonda	Gastrointestinal		N26^{0}51.219 E083^{0}04.444	
60	*C. opaca* Stapf ex Haines	93359466	Pandey Paikauli	Shrub Tree	Aragvadha/ Karmardika,	Gastrointestinal / worm	N27^{0}27.191 E083^{0}10.182	N26^{0}51.866 E083^{0}02.840	

			(AN)Pachpokhri (SKN)		Amaltas				
61	*Cascabela thevetia* (L.) Lippold	9264	Tanda Daulat H Patti	Shrub	Pita Karvir/ Pila Kaner	Cardiac			N25^{0}30.917 E082^{0}42.025
62	*Cassia fistula* L.	9334	Pandey Paikauli		-	Gastrointestinal/ laxative		N26^{0}51.340 E083^{0}03.017	N26^{0}33.442 E082^{0}21.554
63	*Cassytha filiformis* L.	9383	Barambaba	Parasite	Akashwalli/-	Gastrointestinal/ tonic			N26^{0}16.110 E082^{0}48.598
64	*Cayratia trifoliata* (L.) Domin	7551 9301	Hirapur	Climber	-/Amlavet	Gastrointestinal / astringent	N27^{0}15.307 E082^{0}53.684		N26^{0}31.582 E082^{0}46.433
65	*Cedrella toona* Roxb.	7572	Chetia (SN)		Nandivriksh /	Gastrointestinal /astringent	N27^{0}16.038 E082^{0}53.101		
66	*Ceiba pentrandra* (L.) Gaertn.	9286	Tanda –Hirapur	Tree	Kuth Shalmali/ Semar	Gastrointestinal l/ tonic			N25^{0}28.010 E082^{0}44.908
67	*Celastrus paniculatus* Willd.	7472, 9273	Kaithauli	Climber	Jyotismati/-	Gastrointestinal /astringent	N27^{0}27.191 E083^{0}10.182		N26^{0}31.299 E082^{0}47.273
68	*Centella asiatica* Burm. f.	7462	Sadda (SN)	Herb	Mandukaparni/-	Gastrointestinal / ulcer wound-healing promoters	N27^{0}26.416 E082^{0}57.755		
69	*Chenopodium album* L.	9269	Tanda Daulat H Patti	Herb	Vastuk/-Bathua	Gastrointestinal / worm			N25^{0}30.917 E082^{0}42.025
70	*Chrozophora rottleri* (Geister) A. Juss. ex Spreng.	9256	Daulatpur Hazzalpatti	Herb	-/ Shadevi	Respiratory/children			N25^{0}30.047 E082^{0}42.103
71	*Chrysopogon zizanioides* (L.)	9251	Tanda Daulat H Patti	Herb	Ushira/ Khas	Fever/ antipyretic	N27^{0}05.513 E082^{0}58.514	N26^{0}51.159 E083^{0}04.227	N25^{0}30.047 E082^{0}42.103

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72	*Cissampelos pareira* L.	7517	Alidapur (SN)	Climber	Patha /-	Fever/ antipyretic	N27^{0}26.524 E083^{0}07.409		
73	*Cissus quadrangularis* L.	9319	Ittifar Ganj-	Herb	Asthisrikhala/ Hathjod	Bone healing			N26^{0}29.740 E082^{0}32.290
74	*Citrulus vulgaris* Schrad	9296	Hirapur	Climber	Kaninga/	Urinary/ diuretic			N26^{0}31.630 E082^{0}46.066
75	*Cleome viscosa* L.	9245	Tanda Daulat H Patti	Herb	Suvarchala/-	Fever	N27^{0}15.307 E082^{0}53.684		N25^{0}31.960 E082^{0}40.872
76	*Clerodendrum infortunatum* L.	9508	Rudauli (SKN)	Shrub	Bhandir/ Bhat	Gastrointestinal/ anthelmintic	N27^{0}15.307 E082^{0}53.684	N26^{0}51.269 E083^{0}04.444	
77	*Clitoria ternetea* L.	9514	Rudauli (SKN)	Climber	Aprajita/	Nervine tonic	-	N26^{0}51.295 E083^{0}04.024	
78	*Clusena pentaphylla* DC.	9479	Pachpokhri (SKN)	Tree		Veterinary/ wound	-	N26^{0}51.228 E083^{0}03.093	
79	*Coccinia india* W&A	7576, 9197, 9467	Itwa beat (SN) Pachpokhri (SKN) Tanda-Baskhari(AN)	Climber	Bimbi/Kunduru	Diabetes/ skin	N27^{0}18.934 E082^{0}51.934	N26^{0}51.392 E083^{0}02.831	N25^{0}30.917 E082^{0}42.025
80	*Coculus hirsutus* (L.) Diels	9314	Mubarakpur	Climbing herb	Chilhint/ Meodee	Aphrodisiac			N26^{0}30.447 E082^{0}49.584
81	*Coix lachryma jobi* L.	7457, 9297	Sadda (SN) Hirapur (AN)	Herb	Gavedhuka/-	Obesity	N27^{0}26.416 E082^{0}57.755		N26^{0}31.630 E082^{0}46.066
82	*Combretum indicum* (L.) De Filipps	9397	Bhujagi	Climber	-	Malarial in West Africa			N26^{0}18.664 E083^{0}04.314
83	*Comelina bengalensis* L.	9363	Tiwaripur Sabana	Herb	Kachchat/ Kena	Skin/ leprosy			N26^{0}27.256 E082^{0}25.091

84	*Cordia dichotoma* Forst.	9313	Mubarakpur	Tree	Sleshmataka/ Lasoda	Respiratory/ bronchial asthma		N26^{0}51.225 E083^{0}03.093	N26^{0}30.447 E082^{0}49.584
85	*C. myxa* Roxb.	7519	Aidalpur (SN)	Do	Sleshmataka/	Respiratory/ cough		N27^{0}26.524 E083^{0}07.409	
86	*Costus speciosus* (Koen.) Sm.	7603	Bhaluha		Kebuka/ Keokand	Liver / oxytosic and uterine stimulant	N27^{0}05.269 E082^{0}33.516		
87	*Crataeva nurvala*	9367	Jalalpur Malipur	Tree	Varun/-	Urinary/ kidney and bladder stone			N26^{0}14.741 E082^{0}40.091
88	*Crotalaria juncea* L.	9507	Rudauli (SKN)	Herb	Shan/Sanai	Blood/ skin	N27^{0}16.038 E082^{0}53.101	N26^{0}51.219 E083^{0}04.444	
89	*Croton bonpandaliana* Baill.	9233	Tanda Daulat H Patti	Herb		Skin diseases		N26^{0}51.159 E083^{0}04.227	N25^{0}31.940 E082^{0}40.747
90	*Cucumis sativus* L.	9389	Bidahar Ghat	Climber	Trapushi/ Kheera	Uterine			N26^{0}28.915 E082^{0}52.456
91	*Cuscuta reflexa* Roxb.	9388	Chahode Ghat	Parasite	Akashvalli/ Amarbel	Gastrointestinal/worm, skin			N26^{0}36.450 E082^{0}54.579
92	*Curculigo orchioides* Gaertn	9346	Pandey Paikauli (AN), Sadda (SN)	Herb	Talmuli/ Kali Musali	Aphrodisiac	N27^{0}26.416 E082^{0}57.755	N26^{0}51.404 E083^{0}02.210	N26^{0}33.208 E082^{0}21.306
93	*Curcuma longa* L.	7535	Alidapur (SN)		Haridra/Haldi	Diabetes	N27^{0}23.397 E083^{0}01.461		
94	*C. zedoaria* Rosc.	9448	Balusan (SKN)	Herb	Karpukarchari/-	Respiratory-Bronchial asthma	-	N26^{0}51.181 E083^{0}02.908	
95	*Cynodon dactylon* Pers.	7636	Banganga (SN)	Do	Durva/Doob	Blood / Gastrointestinal	N27^{0}09.420 E082^{0}28.398		
96	*Cyperus rotundus* L.	9234	Tanda Daulat H Patti	Herb	Mustak/-	Antiulcer agent			N25^{0}31.940 E082^{0}40.747
97	*Dactyloctenium aegyptica* (L.)	9361, 9424	Tiwaripur Sabana (AN)	Herb	Markattran/ Mahra	Urinary (Africa)		N26^{0}51.154 E083^{0}04.393	N26^{0}27.256 E082^{0}25.091

	Willd.		Balusan (SKN)						
98	*Dregea volubilis* (L.f.) Benth.	9257	Daulatpur Hazzalpatti	Climber	Shrangestra/-	Respiratory, wound, boil			N25^{0}30.047 E082^{0}42.103
99	*Dalbergia latifolia* Roxb.	7488	Kakarahawa (SN)	Tree	-	Diabetes	N27^{0}27.191 E083^{0}10.182		
100	*D. sissoo* Roxb.	9356	Katehari	Tree	Shishapa/ Shisham	Gynaecological gonorrhea/ skin	N27^{0}26.524 E083^{0}07.409		N26^{0}29.752 E082^{0}32.302
101	*Datura metel* L.	9365	Tiwaripur Sabana	Herb	Dhattur/ Dhatura	Respiratory, antiasthmatic and broncholoytisc	N27^{0}27.191 E083^{0}10.182		N26^{0}27.256 E082^{0}25.091
102	*D. stramonium* L.	9481	-Do-	Shrub	Dhattur/-	Respiratory antiasthmatic and broncholoytisc	N27^{0}05.269 E082^{0}33.516	N26^{0}51.295 E083^{0}03.185	
103	*Delonix regia* (Boj. Ex Hook.) Raf.	9320	Kedarnagar	Tree	- Tud	Rheumatism			N26^{0}25.128 E082^{0}33.145
104	*Dendophthoe falcata* (L.f.) Ettingsh	9274	Kaithauli	Epiphyte	Varakshadani/-	Uterine/ respiratory			N26^{0}31.299 E082^{0}47.273
105	*Desmostachya bipinnata* (L.) Slabp.	9258	Daulatpur Hazzalpatti	Climber	Darbha/ Kush	Uterine, diuretic, gastrointestinal	N27^{0}05.513 E082^{0}58.514		N25^{0}29.047 E082^{0}42.103
106	*Desmodium gangeticum* DC.	9252 7431	Sadda (SN) Tanda Daulat H Patti	Herb	Shalparni/-	Tonic, respiratory	N27^{0}26.416 E082^{0}57.755		N25^{0}30.047 E082^{0}42.103
107	*Digera muricata* (L.) Mart.	9226	Tanda	Herb	Kathinjar/ Latmahuriya	Urinary			N25^{0}31.472 E082^{0}40.334
108	*Dioscorea bulbifera* L.	9280	Hirapur	Climber	Varahikand/ Kathalu	Gastrointestinal/ piles, dysentery		N26^{0}51.371 E083^{0}02.835	N26^{0}31.630 E082^{0}46.066
109	*Diospyros*	9329	Maidighat	Shrub	-	Gastrointestinal/			N26^{0}31.269

	melanoxylon Roxb.					respiratory			E082^{0}50.469
110	*Echinochloa colona* (L.) Link	9200	Tanda	Tree	-	Gastrointestinal/ nutritious			N25^{0}30.911 E082^{0}42.025
111	*Eclipta prostrata* (L.) L.	9216	Tanda	Herb	Bhringaraja/ Bhangraiya	Liver protectant : cirrhosis and hepatitis	N27^{0}26.416 E082^{0}57.755	N26^{0}51.080 E083^{0}02.954	N25^{0}31.472 E082^{0}40.334
112	*Elephantopus scaber* L.	9347, 7429	Pandey Paikauli (AN)	Herb	Gojihwa/ Banmusaya	Cardiac/ intestinal	N27^{0}26.416 E82^{0}57.755	N26^{0}51.155 E083^{0}02.956	N26^{0}33.208 E082^{0}21.306
113	*Emblica officinales* Gaertn	9325	Kedarnagar	Tree	Amlaki/ Anwala	Gastrointestinal/ tonic	N27^{0}05.269 E082^{0}33.516		N26^{0}25.128 E082^{0}33.145
114	*Erythrina indica* Lam.	7545	Alida Pur (SN)	Do	Paribhadra/ -	Respiratory, asthma	N27^{0}24.063 E083^{0}00.995		
115	*Eucalyptus globulus* Labill.	9237	Tanda Daulat H Patti	Tree	Telaparni/Nilgiri	Hypoglycemic			N25^{0}31.940 E082^{0}40.747
116	*Euphorbia hirta* L.	9239	Tanda Daulat H Patti	Herb	Brihat-Dugdhika/-	Respiratory, antiasthmatics and bronchyolytics	N27^{0}18.934 E082^{0}51.934		N25^{0}31.940 E082^{0}40.747
117	*Euphorbia nerifolia* L.	9316	Kedarnagar	Herb	Snuhi/ Senhud	Gastrointestinal-diarrhoea			N26^{0}25.128 E082^{0}33.145
118	*Evolvulus alsinoides* (L.) L.	9483	Pachpokhri (SKN)	Herb	Neel Shankhpushpi/-	Cardiac tonic	-	N26^{0}51.266 E083^{0}03.266	
119	*E. numularia* (L.) L.	9409	Balusan beat Khalilabad forest range	Herb	-	Neural / tonic/ skin	-	N26^{0}51.173 E083^{0}04.337	
120	*Ficus benghalensis* L.	9493	Pachpokhri (SKN)	Tree	Vata/ Bargad	Gastrointestinal/ diarrhoea	N27^{0}09.420 E082^{0}28.398	N26^{0}51.337 E083^{0}02.997	
121	*F. hispida* L.f.	9223	Tanda	Shrub	Kasthodumbar/ Khatgular	Gastrointestinal, blood	N27^{0}24.063 E083^{0}00.995	N26^{0}51.080 E083^{0}04.232	N25^{0}31.472 E082^{0}40.334

122	*F. lacor* Buchh. Ham	9266	Tanda Daulat H Patti	Tree	Plaksh/ Pakar	Gastrointestinal/ diarrhea	N27^{0}27.191 E083^{0}10.182		N25^{0}30.917 E082^{0}42.025
123	*F. palmata* Forsk.	9374	Shahjatpur-Jalalpur	Shrub	-	Gastrointestinal/ diarrhoea			N26^{0}14.741 E082^{0}40.091
124	*F. racemosa* L.	9282	Hirapur	Tree	Udambara/ Gular	Gastrointestinal-diarrhoea	N27^{0}18.934 E082^{0}51.934	N26^{0}51.391 E083^{0}02.839	N26^{0}31.630 E082^{0}46.066
125	*F. religiosa* L.	9212	Tanda Daulat H Patti	Tree	Ashvatth/ Pipal	Gastrointestinal/Antiulcer agent	N27^{0}27.191 E083^{0}10.182		N25^{0}31.972 E082^{0}40.334
126	*Flacourtia indica* Merr.	9337, 9462	Pandey Paikauli (AN) Pachpokhri (SKN)	Tree	Vikankat/ Kata Vikankat	Hepatic – jaundice	N27^{0}27.191 E083^{0}10.182	N26^{0}51.368 E083^{0}02.840	N26^{0}33.442 E082^{0}21.554
127	*Gardinea jasminoides* J. Ellis.	9377	Jalalpur	Shrub	Gandharaja	Neural, gastrointestinal/ worm			
128	*Gloriosa superba* L.	9352	Pandey Paikauli	Herb	Langli	Uterine oxytosic and stimulant		N26^{0}51.162 E083^{0}02.941	N26^{0}33.334 E082^{0}21.709
129	*Glycosmis pentaphylla* (Retz.) DC.	9420, 7428	Balusan (SKN) Sadda (SN)	Shrub		Fever	N27^{0}26.416 E082^{0}57.755	N26^{0}51.159 E083^{0}04.227	
130	*Gmelina arborea* L.	9285	Tanda –Hirapur	Tree	Gambhari/	Neural/ uterine			N26^{0}31.729 E082^{0}44.908
131	*Haplophragma adenophyllum* (Wall.) P.Dop	9341	Pandey Paikauli	Tree	Kathasagaun	Skin			N26^{0}33.442 E082^{0}21.554
132	*Helianthus annus* L.	9396	Bhujagi	Herb	Suryamukhi	Uterine, respiratory			N26^{0}18.664 E083^{0}04.314
133	*Haldina cordifolia* Roxb. ex Hook.	7436	Sadda (SN)	Tree	Haridru/Haldu	Skin disorder	N27^{0}26.416 E082^{0}57.755		
134	*Heliotropium indicum* L.	9391	Rajesultanpur (AN), Rudauli	Herb	Hasthisunda/	Skin	N27^{0}09.420 E082^{0}28.398	N26^{0}51.265 E083^{0}04.029	N26^{0}28.543 E082^{0}01.967

			(SKN)						
135	*Helminthostachys zeylanica* (L.) Hook.	9456	Balusan (SKN)	Herb	-/Kamraj	Aphrodisiac	-	N26^{0}51.404 E083^{0}04.210	
136	*Hemidismus indicus* R. Br.	9419	Balusan (SKN)	Climber	Sariva/-	Antipyretic	N27^{0}26.416 E082^{0}57.755	N26^{0}51.162 E083^{0}04.941	
137	*Hibiscus rosa-sinensis* L.	9376	Shahjatpur-Jalalpur	Shrub	Japa/ Gudahal	Uterine, hair	N27^{0}18.934 E082^{0}51.934		N26^{0}14.741 E082^{0}40.091
138	*Hibiscus sabdariffa* L.	7557	Chetia (SN)	Do	Ambaghaki/-	Uterine/ diuretic	N27^{0}15.307 E082^{0}53.684		
139	*Holarrhena antidysenterica* (L.) Wall.	9382	Barambaba (AN) Rudauli (SKN)	Tree	Kutaj/-	Gastrointestinal diarrhoea: including dysentery	N27^{0}20.325 E082^{0}41.164	N26^{0}51.324 E083^{0}04.087	N26^{0}16.155 E082^{0}48.870
140	*Holoptelea integrifolia* (Roxb.) Plench	9306	Mubarakpur	Tree	Chirabilva/ Chilbil	Inflammation	N27^{0}18.934 E082^{0}51.934		N26^{0}31.582 E082^{0}49.594
141	*Hymenodictyon excelsum* (Roxb.) Wall.	7439	Sadda (SN)	Do	Bringvriksh/Bhorkul	Fever /inflamation		N27^{0}26.416 E082^{0}57.755	
142	*Hyptis suaveolens* (L.) Poit.	9353	Satipur- Bhiti	Herb	-	Gastrointestinal, skin			N26^{0}33.189 E082^{0}21.740
143	*Ichnocarpus frutiscens* (L.) W.T. Ait.	9278	Kaithauli (AN) Rudauli (SKN)	Climber, herb	-	Intestinal, fever	N27^{0}26.416 E082^{0}57.755	N26^{0}51.265 E083^{0}04.029	N26^{0}31.299 E082^{0}47.273
144	*Imperata cylindrica* (L.) P. Veauv.	9240	Tanda (AN)	Herb	Kush /Darbh	Renal/ urolitholytic : kidney and bladder stone, galacatagogue	N27^{0}20.325 E082^{0}41.164		N25^{0}31.472 E082^{0}40.334
145	*Indigofera tinctoria* L.	7513	Alidapur (SN)	Do	Nili/ Nil	Neural	N27^{0}26.524 E083^{0}07.409		
146	*Ipomoea*	9392	Rajesultanpur	Herb	Nadika/	Tonic, eye	N27^{0}26.530		N26^{0}18.669

	*aquatic*a Forssk.		(AN)		Karemuwa		E083^{0}07.401		E083^{0}04.314
147	*Ipomoea carnea* Jace.	9372	Jalalpur Malipur	Herb	Behaya	Joint pain			N26^{0}14.741 E082^{0}40.091
148	*Jasminum multiflorum* (Burm. f.) Andr.	9360	Tiwaripur Sabana	Climbing herb	Kunda/ Bela	Gastrointestinal/ emetic, ulcer			N26^{0}27.197 E082^0.26.059
149	*Jatropha curcas* L.	9343	Pandey Paikauli	Shrub	Vaghaerend/ Ratanjot	Skin, Gastrointestinal			N26^{0}33.442 E082^{0}21.554
150	*J. gossypifolia* L.	9263	Tanda Daulat H Patti	Shrub	-	Skin	N27^{0}24.063 E083^{0}00.995	N26^{0}51.188 E083^{0}02.910	N25^{0}30917 E082^{0}42.025
152	*Justicea adhatoda* L.	9331	Maidighat	Shrub	Vasa/ Adusa	Respiratory/ asthma, bronchytics	N27^{0}05.269 E082^{0}33.516		N26^{0}31.269 E082^{0}50.469
153	*Lagerstroemia speciosa* (L.) Pers.	7531	Alidapur (SN)	Tree	-/Jarul	Diabetes/ hypoglycaemic	N27^{0}23.397 E083^{0}01.461		
154	*Lawsonia innermis* L.	9271	Kaithauli	Shrub	Madyantika/ Menhadi	Diabetes, skin			N26^{0}31.299 E082^{0}47.273
155	*Leucas indica* (L.) R.Br.	9523	Bharuaya (SKN)	Herb	Dronapushpi/ Guma	Hepatic protection	-	N26^{0}50.526 E083^{0}04.596	
156	*Litsea chinensis* Lamk.	7536	Alidapur (SN)	Do	-/Meda	Gastrointestinal/ diarrhoea	N27^{0}23.397 E083^{0}01.461		
157	*L. glutinosa* (Lour.) Robinson	7468	Alidapur (SN)	Do	Medasak/Meda	Gastrointestinal	N-27^{0}27.191 E083^{0}10.182		
158	*Lygodium flexuosum* (L.) Sw.	9336	Pandey Paikauli (AN)	Tree	- Amaltas	Respiratory		N26^{0}51.155 E083^{0}02.956	N26^{0}33.442 E082^{0}21.554
159	*Madhuca longifolia* (J.	9354	Satipur- Bhiti	Tree	Madhuka/Mahua	Tonic	N27^{0}15.307 E082^{0}53.684		N26^{0}33.189 E082^{0}21.740

	Konig.) J. Macbr.								
160	*Mallotus philippinensis* (Muel) Arg.	9449	Balusan (SKN), Sadda (SN)	Tree	Kampillak/ Sindur	Gastrointestinal/ anthelmintics	N27^{0}26.416 E082^{0}57.755	N26^{0}51.404 E083^{0}02.421	
161	*M. nudiflora* L.	9338	Pandey Paikauli	Shrub	-/ Ghutel	Swelling, rheumatism		N26^{0}51.225 E083^{0}03.093	N26^{0}33.189 E082^{0}21.740
162	*Marsilea minuta* L.	9328	Mubarakpur (AN), Rudauli (SKN)	Herb. Fern	Sunisannaka/	Neural- CNS depressants	N27^{0}26.530 E083^{0}07.401	N26^{0}51.228 E083^{0}04.359	N26^{0}32.412 E082^{0}42.497
163	*Melia azedarach* L.	9283	Tanda –Hirapur	Tree	Mahanimb/ Bakain	Fever, hyper acidity	N27^{0}24.063 E083^{0}00.995		N26^{0}31.729 E082^{0}44.908
164	*Mentha piperita* L.	9235	Tanda Daulat H Patti	Herb	-/Pippermint	Antiinflammatory			N25^{0}31.940 E082^{0}40.747
165	*Mimosa pudica* L.	7475	Kakarahwa (SN)		Lajjalu/-	Gastrointestinal/ piles	N27^{0}27.191 E083^{0}10.182		
166	*Mimosa rubicaulis* Lam.	9486	-Do-	Tree	-	Intestinal/ piles	-	N26^{0}51.291 E083^{0}03.212	
167	*Mimusops hexandra* Roxb.	9500	-Do-	Tree	Rajadan/ Van khirni	Gastriintestinal/ tonic	-	N26^{0}50.504 E083^{0}04.600	
168	*Mirabilis jalapa* L.	9261	Tanda Daulatpur Hazzalpatti	Herb	-	Aphrodisiac		N26^{0}51.167 E083^{0}04.621	N25^{0}30917 E082^{0}42.025
169	*Momordica charantia* L.	9292	Hansawar	Climber	Karvellak/ Karela	Hepatic- protectance : cirrhosis			N26^{0}30.451 E082^{0}49.587
170	*Morinda tinctoria* Roxb.	9253	Tanda Daulat Hazzal Patti	Herb	-	Hypoglycemic			N25^{0}30.047 E082^{0}42.103
171	*Moringa oleifera* Lam.	9291	Hansawar	Tree	Shigru/	Antiinflammatory, analgesic	N27^{0}24.063 E083^{0}00.995		N26^{0}32.589 E082^{0}51.315
172	*Morus alba* L.	9317,	Kedarnagar	Tree	Tood/ Shahtoot	Gastroin testinal/	N27^{0}23.397	N26^{0}51.295	N26^{0}25.128

		9521	(SN) Bharuaya (SKN)			purgative Fever	E083^{0}01.461	E083^{0}04.025	E082^{0}33.145
173	*Mucuna pruriens* (L.) DC.	7620, 9277	Bhadaria (SN), Hirapur (AN)	Climber	Kapikachchu/ Kanwach	Aphrodisiac, Spermatogenesis enhencers	N27^{0}05.513 E082^{0}58.514	N26^{0}50.968 E083^{0}04.494	N26^{0}31.630 E082^{0}46.066
174	*Mukia maderaspatana* (L.) M. Roem.	9472	Bharuaya (SKN)	Climber	-	Toothache	-	N26^{0}51.291 E083^{0}03.212	
175	*Murraya koenigii* (L.) Spreng.	7472	Kakarahawa (SN)	Shrub	Kaidarya/ Mithineem	Gastrointestinal-digestive, Carminative	N27^{0}27.191 E083^{0}10.182		
176	*M. paniculata* (L.) Jack.	9305	Ittifar Ganj (AN)	Shrub	- /Merchula	Antiinflammatory	N-27^{0}27.191 E083^{0}10.182		N26^{0}31.582 E082^0.35.257
177	*Musa paradisiaca* L.	7635	Banganga (SN)	Herb	Kadli/ Kela	Gastrointestinal	N27^{0}09.420 E082^{0}28.398		
178	*Mytragyna parviflora* (Roxb.) Korth.	9477	Pachpokhri (SKN), Sadda (SN)	Tree	-/ Dhoolikadamb	Fever/ swelling	N27^{0}26.416 E082^{0}57.755	N26^{0}51.225 E083^{0}03.093	
179	*Nelumbo nucifera* Gaertn.	7426	Shoharatgarh (SN)		-	Gastrointestinal, neural	N27^{0}25.578 E82^{0}58.004		
180	*Neolamarckia cadamba* (Roxb.) Bosser	9294	Medighat-Hansawar	Tree	Kadamba/-	Gastrointestinal/ tonic	N27^{0}22.248 E083^{0}02.537		N26^{0}32.589 E082^{0}51.315
181	*Nerium oleander* L.	9312 9364	Ittifar Ganj Tiwaripur Sabana	Shrub	Karvira/ Kaner	Pain			N26^{0}35.686 E082^{0}34.907
182	*Nicotiana tabacum* L.	9393	Rajesultanpur (AN)	Herb	Tambaku/ Surti	Diaphoretic, Narcotic			N26^{0}18.664 E083^{0}04.314
183	*Nyctanthes arbortristris* L.	9310	Ittifar Ganj (AN)	Tree	Parijat/ Harshringar	Fever, sciatica			N26^{0}29.740 E082^{0}32.290

184	*Nymphea pubescens* Willd.	7425	Shoharatgarh (SN)	Aquatic herb		Gastrointestinal/ piles	N27^{0}25.578 E82^{0}58.004		
185	*Ocimum americanum* L.	7508	Birdpur (SN)	Herb	Ajaka/-	Respiratory-asthma and broncholytic, antypyretic	N27^{0}26.530 E083^{0}07.40		
186	*O. tenuiflorum* L.	9318	Ittifarganj (AN)	Herb	Tulasi/ Tulasi	Respiratory-antiasthmatic and broncholytic, antipyretic		N26^{0}51.295 E083^{0}04.025	N26^{0}29.740 E082^{0}32.290
187	*Olax scandens* Roxb.	9386	Barambaba		-	Gastrointestinal blood		N26^{0}51.162 E083^{0}02.941	N26^{0}16.110 E082^{0}48.598
188	*Operculina turpethum* (L.) Silva Manso	9384	Masodha Chahode Ghat	Climber Herb	Trivrit	Gastrointestinal /laxative	N27^{0}27.189 E083^{0}10.450		N26^{0}16.147 E082^{0}48.659
189	*Opuntia stricta* (Haw.) Haw.	9387	Barambaba (AN)		Nagaphani	Inflammation / boil			N26^{0}36.450 E082^{0}54.579
190	*Oroxylum indicum* (L.) Benth. ex Kurz.	9333	Maidighat	Tree	Shyonak/ Sonapatta	Gastrointestinal/ diarrhea			N26^{0}31.269 E082^{0}50.469
191	*Oxalis corniculata* L.	74309330	Mubarakpur, (AN), Sadda (SN)	Herb	Changeri/-	Gastrointestinal-antispasmodic : all types of digestive complaint	N27^{0}26.416 E082^{0}57.755		N26^{0}32.412 E082^{0}42.497
192	*Pennisetum glaucum* (L.) R.Br.	9309	Mubarakpur (AN)	Tree	Vajranna/ Bajra	Gastrointestinal/ tonic			N26^{0}31.582 E082^{0}49.594
193	*Peristrophe bicalyculata* Nees	9254	Daulatpur Hazzalpatti	Herb	Kakjangha bhed/ Atrilal	Snake bite	N27^{0}15.307 E082^{0}53.684		N25^{0}30.047 E082^{0}42.103

194	*Phoenix sylvestris* (L.) Roxb.	9307	Hansawar	Tree	Kharjur/-	Gastrointestinal/ tonic teeth	N27^{0}24.063 E083^{0}00.995		N26^{0}30.451 E082^{0}49.587
195	*Phyla nodiflora* (L.) Greene	9299	Hirapur	Herb	Jalpippali/-	Skin	N27^{0}09.420 E082^{0}28.398		N26^{0}31.582 E082^{0}46.433
196	*Phyllanthus amarus* Schum.	9225, 9399	Tanda Daulat H Patti (AN) Balusan beat Khalilabad forest range (SKN)	Herb	Bhumyamlaki/-	Urinary/ diuretics: hypertension and oedema		N26^{0}51.159 E083^{0}04.227	N25^{0}31.940 E082^{0}40.747, N25^{0}30.047 E082^{0}42.103
197	*Physalis angulata* L.	9208	Tanda Daulat H Patti	Herb	-/ Makoy	Gastrointestinal-antiulcer agent, Hepatic protectance : cirrhosis and hepatitis			N25^{0}30.917 E082^{0}42.025
198	*Physalia minima* L.	7559	Chetia (SN)	Herb	Tankari/-	-Gastrointestinal ulcer, hepatic protectance : cirrhosis and hepatitis	N27^{0}15.307 E082^{0}53.684		
199	*Pistia stratoites* L.	7613	Bhaluha (SN)	Do	Jalkumbhika/-	Urogenital/ dysurea, respiratory/ cough	N27^{0}05.269 E082^{0}33.516		
200	*Pithecellobium dulce* (Roxb.) Benth.	9198	Tanda Daulat patti (AN)	Tree	-/ Kachlora	Hair, diabetes		N26^{0}51.295 E083^{0}04.024	N25^{0}30.911 E082^{0}42.025
201	*Plumbago zeylanica* L.	9395, 9465	Bhujagi (AN) SKN) Rudauli (SKN)	Herb	Chitraka/-	Gastrointestinal/antispasmodic, digestive	N27^{0}15.307 E082^{0}53.684	N26^{0}51.078 E083^{0}02.949	N26^{0}18.664 E083^{0}04.314
202	*Polyalthea longifolia* Sonn.	9221	Tanda Daulat H Patti	Tree	Kashthadaru/ Ashoka	Fever, skin			N25^{0}31.947 E082^{0}40.865
203	*Polygonum plebeium* R.Br.	9238	Tanda Daulat H Patti	Herb	-/ Raniphul	Gastrointestinal/		N26^{0}51.364 E083^{0}02.857	N25^{0}31.940 E082^{0}40.747
204	*Pongamia*	9300	Hirapur	Tree	Karanj/	Antiperiodic	N27^{0}26.479	N26^{0}51.314	N26^{0}31.582

	pinnata (L.) Merr.				Dhithohri		E083^{0}07.484	E083^{0}03.031	E082^{0}46.433
205	*Portulaca oleracea* L.	9351	Pandey Paikauli- Bhiti	Herb	Lonika/-	Hepatic disorder			N26^{0}33.189 E082^{0}21.740
206	*Premna mollissima* Roth.	9375	Shahjatpur-Jalalpur	Shrub	-	Anti-inflammatory			N26^{0}14.741 E082^{0}40.091
207	*Psidium guajava* L.	9276	Hirapur	Tree	Peruk/ Amarood	Gastrointestinal			N26^{0}31.582 E082^{0}46.433
208	*Putranjiva Roxburghii* Wall.	9290	Hansawar (AN), Balusan (SKN)	Tree	Putrajivaka/-	Fever, Gynaecological	N27^{0}26.416 E082^{0}57.755	N26^{0}51.154 E083^{0}04.343	N26^{0}32.589 E082^{0}51.315
209	*Randia dumetorum* Lam.	9497	Balusan (SKN), Sadda (SN)	Tree	Madan/-	Gastrointestinal/ rheumatism	N27^{0}26.416 E082^{0}57.755	N26^{0}51.265 E083^{0}04.029	
210	*Rauvolfia serpentina* (L.) Benth. ex Kurz	9281	Hirapur ((AN)	Herb	Sarpagandha/-	Antihypertensive			N26^{0}31.630 E082^{0}46.066
211	*Ricinus communis* L.	9213	Tanda Daulat H Patti (AN)	Shrub	Erand/ Rend	Cardiac- hypertension and oedema, analgesics : all kind of pain	N27^{0}18.934 E082^{0}51.934		N25^{0}31.940 E082^{0}40.747
212	*Saccharum munja* Roxb.	9231	Tanda Daulat H Patti (AN)	Herb	Munja/ Sarapat	Urolitholytic agent	N27^{0}16.038 E082^{0}53.101		N25^{0}31.940 E082^{0}40.747
213	*S. officinarum* L.	9398	Bhujagi	Herb	Ikshu/Ganna	Urolitholytic agent	N27^{0}23.397 E083^{0}01.461		N26^{0}18.664 E083^{0}04.314
214	*S. spontaneum* L.	9230	Tanda Daulat H Patti	Shrub	Kash	Urolitholytic agent	N27^{0}16.038 E082^{0}53.101		N25^{0}31.940 E082^{0}40.747
215	*Sansevieria roxberghiana* Schult. & Schult.	9315	Ittifar Ganj-	Herb	Marul	Respiratory- cough			N26^{0}29.740 E082^{0}32.290

216	*Schleichera oleosa* (Lour.) Oken	7444	Sadda (SN)	Herb	Koshamr/Kusum	Skin	N27^{0}26.416 E082^{0}57.755		
217	*Scirpus kysoor* Roxb.	7427	Shohrat garh (SN)		Kaseru	Aphrodisiac	N27^{0}25.578 E082^{0}58.004		
218	*Scoparia dulcis* L.	9203	Tanda Daulat H Patti (AN) Rudauli (SKN)	Herb	-/ Mithi Patti	Gasrointestinal/ emetic Diabetes	N27^{0}26.416 E082^{0}57.755	N26^{0}51.209 E083^{0}04.583	N25^{0}30.191 E082^{0}42.025
219	*Senna alata* (L.) Roxb.		Kapilavastu (SN)	Herb	-	Skin-anti fungal agent	N27^{0}26.479 E083^{0}07.484		
220	*S. obtusifolia* (L.) H.S. Irwin & Barnebi	9400	Balusan (SKN)	Herb	-	Respiratory- asthma and broncholoytisc	-	N26^{0}51.173 E083^{0}04.227	
221	*S. occidentalis* (L.) Link.	9326	Kedarnagar	Tree	Kasmarda/ Kasondi	Respiratory-asthmatic and broncholoytisc	N27^{0}26.524 E083^{0}07.409	N26^{0}51.173 E083^{0}04.337	N26^{0}25.128 E082^{0}33.145
222	*S. sophera* (L.) Roxb.	9270	Tanda	Shrub	Kasamarda/-	Respiratory-asthmatic and broncholoytisc	N27^{0}26.524 E083^{0}07.409		N25^{0}30.917 E082^{0}42.025
223	*S. tora* (L.) Roxb.	9262	Daulat H Patti	Herb	Chakramarda/ Chakawan	Skin, ringworm, eczema	N27^{0}23.397 E083^{0}01.461		N25^{0}30917 E082^{0}42.025
224	*Sesbania bispinosa* (Jacq.) Faw & Rendl.	7510	Alidapur beat (SN)	Shrub	Itakata/-	Skin/ ringworm, wound	N27^{0}26.524 E083^{0}07.409		
225	*S. sesban* (L.) Merr.	7562	Chetia (SN)	Do	Jayanti/-	Gynaecological	N27^{0}15.307 E082^{0}53.684		
226	*Sesamum indicum* L.	9247, 9505	Tanda Daulat H Patti (AN) Rudauli (SKN)	Herb	Til/ Vanatil	Wound healing	N27^{0}23.252 E083^{0}10.495,	N26^{0}51.213 E083^{0}04.497	N25^{0}31.960 E082^{0}40.872
227	*Setaria veticillata* (L.) P. Veauv.	9495	Rudauli (SKN)	Herb		Rheumatism	-	N26^{0}51.167 E083^{0}04.621	
228	*Shorea robusta*	7466	Kakarahawa	Tree	Shala	Analgesic	N27^{0}27.191		

	Gaertn. F.		(SN)				E083^{0}10.182		
229	*Sida acuta* Burm. f.	9244	Tanda Daulat H Patti	Herb	Bariara	Aphrodisiac		N26^{0}51.078 E083^{0}02.949	N25^{0}31.972 E082^{0}40.334
230	*S. cordata* L.	9464	Birdpur (SN) Pachpokhari (SKN)	Herb	Bhumibala	Aphrodisiac	N27^{0}26.530 E083^{0}07.401	N26^{0}51.391 E083^{0}02.839	
231	*S. cordifolia* L.	7621	Bhadaria (SN)	do		Aphrodisiac	N27^{0}05.513 E082^{0}58.51		
232	*S. rhombifolia* L.	9407	Balusan (SKN)	Herb	Mahabala/-	Aphrodisiac	N27^{0}26.416 E082^{0}57.755	N26^{0}51.159 E083^{0}04.227	
233	*S. spinosa* L.	7512	Alidapur (SN)	Do	Nagbala/	Aphrodisiac	N27^{0}26.524 E083^{0}07.409		
234	*Smilax ovalifolia* Roxb.	7532	Aidalpur (SN)	Scandant	-	Gynaecological, rheumatism	N27^{0}23.397 E083^{0}01.461		
235	*Smilax zeylanica* L.	9489	Pachpokhari (SKN)	Climber	-	Gynaecological, rheumatism	-	N26^{0}51.368 E083^{0}02.840	
236	*Solanum incanum* L.	9248	Tanda Daulat H Patti	Herb	Brihati /-	Respiratory- asthma and bronchyolytics			N25^{0}31.960 E082^{0}40.872
237	*S. nigrum* L.	9267	Tanda Daulat H Patti	Herb	Kakamachi/ Makoy	Hepatic- protectance cirrhosis and hepatitis	N27^{0}18.934 E082^{0}51.934		N25^{0}30.917 E082^{0}42.025
238	*S. viarum* Dunal	7630	Banganga River Bank		-	Respiratory/ asthma and bronchyolytics	N27^{0}09.420 E082^{0}28.398		
239	*S. virginianum* L.	9378	Jalalpur – Akbarpur (AN), Pachpokhari (SKN)	Herb	Kantakari/ Bhatkat	Respiratory- asthma and bronchyolytics	N27^{0}16.038 E082^{0}53.101	N26^{0}51.368 E083^{0}02.840	N26^{0}14.771 E082^{0}39931
240	*Sorghum vulgare* (L.) Pers.	9308	Mubarakpur	Herb	Yavnal/ Jwar	Diuretic			N26^{0}31.582 E082^{0}49.594
241	*Spondias pinnata* (L.f.)	9289	Tanda - Hirapur-	Tree	Amrataka/ Amda	Gastrointestinal/ dysentery	N27^{0}05.269 E082^{0}33.516	N26^{0}51.392 E083^{0}02.831	N26^{0}31.729 E082^{0}44.908

	Kurz.								
242	*Streblus asper* Lour.	7454	Sadda (SN)		Sakhotaka/	Gastrointestinal, tooth ache	N27^{0}26.416 E082^{0}57.755		
243	*Syzygium cumuni* (L.) Skeels	9295	Medighat-Hansawar	Tree Tree	Jambu / Jamun	Gastrointestinal-diarrhoea including dysentery, Diuretics : hypertension and oedema	N27^{0}26.416 E082^{0}57.755		N26^{0}30.451 E082^{0}49.587
244	*S. salicifolium* (Wight) J. Graham	9303	Ittifar Ganj		Nadi-Jambu/ Kath Jamun	Gastrointestinal-diarrhoeals: including dysentery, Diuretics : hypertension and oedema	N27^{0}22.248 E083^{0}02.537		N26^{0}31.582 E082^{0}46.433
245	*Tabernaemontana divaricata* R.Br. ex Roem. & Schulz.	9355 9368	Katehari Jalalpur Malipur	Shrub	-	Skin, eye, toothache			N26^{0}29.752 E082^0.32.302
246	*Tamarindus indica* L.	7579, 93689502	Itwa (SN), Jalalpur (AN) Rudauli (SKN),	Tree	Cincha/Imali	Gastrointestinal-digestion,	N27^{0}18.934 E082^{0}51.934	N26^{0}51.219 E083^{0}04.444	N26^{0}14.741 E082^{0}40.091
247	*Tamilnadia uliginosa* (Retz.) Tirveng. & Sastre	9518	Balusan (SKN)	Tree	Pindar/ Pidar	Gastrointestinal/ diarrhea, dysentery	N27^{0}24.063 E083^{0}00.995	N26^{0}51.295 E083^{0}04.025	N26^{0}14.741 E082^{0}40.091, N26^{0}51.219 E083^{0}04.444
248	*Tectona grandis* L.f.	9275	Kaithauli	Tree	Shaka/ Shagaun	Diabetes	N27^{0}22.549 E083^{0}01.931	N26^{0}51.298 E083^{0}03.185	N26^{0}31.299 E082^{0}47.273
249	*Telosma palida* (Roxb.) W.G. Craib.	9339, 9447	Pandey Paikauli	Climber Do	- / Bawar	Aphrodisiac	N27^{0}27.191 E083^{0}10.182	N26^{0}51.191 E083^{0}02.906	N26^{0}33.259 E082^{0}21.674222
250	*Terminalia*	7578	Itwa (SN)		Arjun/Koha	Cardiac-tonic and	N-27^{0}18.934		

	arjuna W.&. A.		Akbarpur (AN)			cardioprotectants	E082^{0}51.934		
251	*Terminalia bellirica* Roxb.	7438	Sadda (SN)	Tree	Vibhitaka/ Bahera	Cardiac-antiatherosclerotics : hyperlipidaemia and hypercholesterolaemia	N27^{0}26.416 E082^{0}57.755		
252	*Tinospora cordifolia* (Willd.) Miers	9205	Tanda (AN), Sadda (SN)	Climber	Amrita/ Guduchi	Gastrointestinal- ulcer, antistrees agent	N27^{0}26.416 E082^{0}57.755	N26^{0}51.144 E083^{0}04.317	N25^{0}30.917 E082^{0}42.025
253	*Toona ciliata* M. Roem.	9209	Tanda Daulat H Patti	Tree	Toon / Toon	Fever/ antipyretic			N25^{0}30.947 E082^{0}40.865
254	*Trapa bispinosa* Roxb.	7561	Chetia (SN)	Aquatic herb	Shringatak /Singhada	Aphrodisiac	N27^{0}15.307 E082^{0}53.684		
255	*Trichosanthes bracteata* (Lam.) Voigt.	7573	Chetia (SN)	Climber	Visala/-	Respiratory/ asthma	N27^{0}16.038 E082^{0}53.101		
256	*T. cucumerina* L.	7592	Bhalukoni (SN)		TiktaPatola/	Antipyretics: all types of fever	N27^{0}20.325 E082^{0}41.164		
257	*T. dioica* Roxb.	9260	Daulatpur Hazzalpatti	Climber	Swadu Patola/ Parawal	Fever	N27^{0}20.325 E082^{0}41.164		N25^{0}29.757 E082^{0}43.373
258	*Tridax procumbens* L.	9227	Tanda	Herb	-	Gastrointestinal-ulcer, haemostatic			N25^{0}31.472 E082^{0}40.334
259	*Triumfetta rhomboidea* Jacq.	9474	Pachpokhari (SKN)	Herb	Zinzirita/-	Aphrodisiac	N27^{0}26.524 E083^{0}07.409	N26^{0}51.225 E083^{0}03.093	
260	*Tylophora himalaica* Hook. F.	7442	Sadda (SN)	Climber	-	Respiratory- asthma	N27^{0}26.416 E082^{0}57.755		
261	*Typha elephantana*	7642	Banganga river Bank (SN)	Herb	Gundra/	Gastrointestinal/ ulcer	N27^{0}09.420 E082^{0}28.398		
262	*Uraria picta* Desv.	9446	Balusan (SKN)	Herb	Prishniparni/	Analgesic	-	-	N26^{0}51.188 E083^{0}02.910

263	*Urena lobata* L.	9232	Tanda Daulat H Patti	Herb	-/ Vanabhenda	Aphrodisiac	N27^{0}26.524 E083^{0}07.409		N25^{0}31.940 E082^{0}40.747
264	*Vallaris solanacea* (Roth.) Ktz.	9348	Pandey Paikauli	Herb	Asphota	Wound healing	N27^{0}27.191 E083^{0}10.182		N26^{0}33.189 E082^{0}21.740
265	*Vernonia cineria* Less.	9224	Tanda	Herb	Sahadevi/-	Diaphoretic	N27^{0}26.524 E083^{0}07.409	N26^{0}51.391 E083^{0}02.839	N25^{0}31.472 E082^{0}40.334
266	*Vitex negundo* L.	9311	Mubarakpur	Shrub	Nirgundi/ Meodee	Anti-inflammatory			N26^{0}32.412 E082^{0}42.497
267	*Xanthium strumarium* L.	9199	Tanda Daulat H patti	Herb	Artagal/ Atajal	Malarial fever, cancer	N27^{0}09.420 E082^{0}28.398		N25^{0}30.911 E082^{0}42.025
268	*Zea mays* L.	9202	Tanda Daulat H Patti	Herb	-Makai	Nutrititive			N25^{0}30.191 E082^{0}42.025
269	*Zizyphus jujuba* Lam.	9220	Tanda Daulat H Patti	Shrub	Badar/ Ber	Blood purifier			N25^{0}31.940 E082^{0}40.747

Conservation

Conservation of medicinal plants in sub Himalayan Region of Uttar Pradesh to which the study areas belong, needs for enriching the locally available medicinal plants in their vicinity which has the commercial value as it is fact due to shortage of plant for the root of *Desmodium gangeticum, Uraria picta,* the whole plant is traded in market with three different plants in different markets in the name of Shalparni and Prishniparni respectively besides areas are best suitable for the conservation and extensive cultivation of *Gloriosa superba* also.

Conservation experience in India

Experimental experience in different part of Country has adapted conservation aspects for selected medicinal plants in different suitable localities for different medicinal plants wherein Madhya Pradesh and Uttar Pradesh is concentrating towards *Aegle marmelos, Aloe barbadensis Chlorophytum borivilianum, Mentha piperita* and, *Ocimum tenuiflorum* through cultivation. Karnataka and Kerala are concentrating towards cultivation of medicinal plants with dual used like *Cinnamomum zeylanica, Eletaria cardamomum, Pterocarpus marsupium* and *Santalam album*. Concept of In situ conservation is confined only to the hills and forest areas by developing Medicinal Plants Conservation areas in different forests having major potential of certain species. Network of conserving about 30 species of medicinal plants have been initiated by National Medicinal Plants Board out of which *Aegle marmelos, Bacopa monnieri, Emblica officinalis, Ocimum tenuiflorum* is being cultivated in Uttar Pradesh. However, large number of medicinal plants growing in Uttar Pradesh is in great demand by the pharmaceuticals. In present situation plants of *Boerhaavia diffusa, Fumaria indica, Desmodium gangeticum, Ocimum tenuiflorum Solanum virginianum, Tinospora cordifolia, Uraria picta* is in great demand. Experience of including other species in the states are gradually increasing.

Figure 1: Photographs of important medicinal plants from the areas.

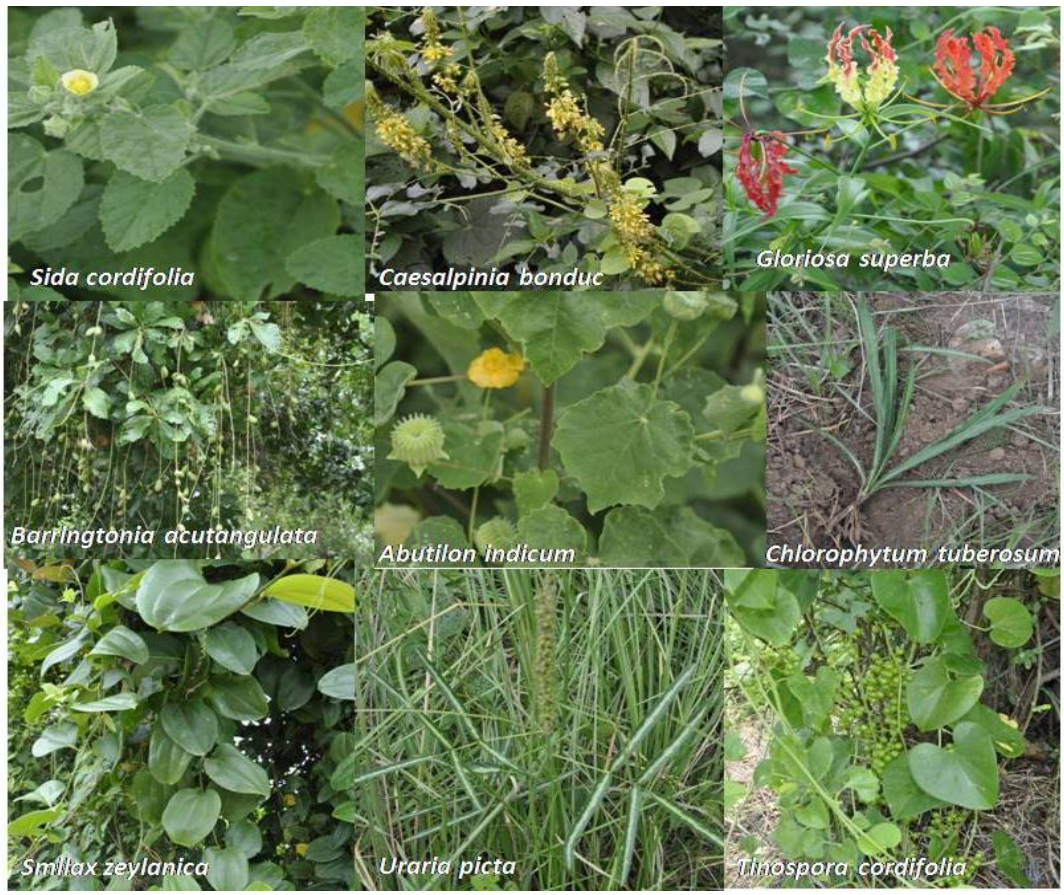

Figure 2: Photographs of important medicinal plants from the areas.

Revitalization of local health tradition in different explored areas is very poorly available and they are using locally available plants either by cultivation in their kitchen garden or nearby localities. Plants of *Abelmoschus moschatus, Achyranthes aspera, Aloe barbadensis, Andrographis paniculata, Ocimum tenuiflorum, Phyllanthus amaras, Plumbago zeylanica, Sida rhombifolia, Tinospora cordifolia* are being grown for the use of traditional healing practices and needs to be extended for mass commercial cultivation to fulfill the need of pharmaceuticals. Traditional healing practices are gradually being ignored by the new generation which also needs to be revived and conserved by facilitating the traditional healers as several are proved to be good practitioners.

Criteria for selection of conservation area

- Coverage of different forest cover/ vegetation types and altitudinal zones
- Area known for high diversity of medicinal plants (Hot spots)
- Areas with high proportion of endemic species
- Easily manageable sites with an area of 200-500 hectares
- Easily accessible area
- Through cultivation with other agricultural crops and vegetables.

Historically / traditionally known area for high potency of medicinal plants

Conservation of medicinal plants was made generally cultivating in waste land and road sides only. In the study areas very limited part is left for cultivation of medicinal plants as most of the areas are occupied by timber tree like *Shorea robusta* and *Tectona grandis.* Most of the conservation areas are confined to the teak forests and road sides only.

Insitu conservation

In situ conservation helps in conserving intra specific medicinal plants

There are three different models for In situ conservation:

- Medicinal plants conservation area (MPCA) model
- Medicinal plants development (MPDA) model
- Non timber forest produce area (NTFP) area model

In the study areas only *Bacopa monnieri, Helminthostachys zeylanica, Phyllanthus amaras* and *Solanum nigrum,* can be conserved as there is major exploitation of this plant collected in the name of trade name Brahmi, Kamaraj, Bhuiamla, Makoy. *Aegle marmelos* (Bilva), *Desmodium gangeticum* (Shalaparni), *Mallotus philippensis* (Kampillak), *Uraria picta*

(Prishniparni) needs to be commercialized from the areas of occurrence through systemic conservation.

Plants conservation areas should be demarcated with identified gate with a small nursery at the entry point of the area with raised planting materials of the plants identified for conservation of the species in the identified area.

Systemic collection of the medicinal plants in the areas is the measure to enhance the quantity of new plants. It is dependent upon the parts to be collected. In case of root collection as drug there is need of leaving more than 50% of entire root in case of tree and shrubs whereas same percentage of herbs are required to be uprooted to keep the potential of plant in the area as balanced for forthcoming year. In case of leaf collection too the practice must be for protection of plants in the area for further propagation and making balance in the vicinity. In case of flower fruit and seed collection drug part must be left in the required proportion intact with the mother plant for maturation and germination of the seeds on maturity in the natural filed.

Conservation through Cultivation

Conservation through cultivation of medicinal plants is a trial and error practice methods for cultivation which needs acclimatization. As per various level trial made in different climatic zones cultivation of *Asparagus racemosus, Bacopa monnieri, Cinnamomum tamala, C. zeylanica, Holarrhena antidysenterica, Oroxylum indicum, Psoralea corylifolia, Rauvolfia serpentina, Saraca asoca, Smilax* sp., *Uraria picta* etc. where seeds are used as propagules, the seeds are germinated in nursery beds and seedlings are transplanted in the field. Vegetative propagation through root and stem cuttings is another practice where cultivation is made by taking vegetative parts as propagule like rhizome in case of *Acorus calamus, Aloe barbadensis, Costus speciosus, Curcuma* species, tubers for *Smilax zeylanica* and other species *Amorphophalus campanulatus,* stem cuttings for *Rauvolfia serpentina, Tinospora cordifolia,* etc. or by root cuttings of *Asparagus racemosus, Glycyrrhiza glabra*, This practice needs High grade caring of young propagules before plantation to the field.

Through cultivation plants are collected from one climatic area and transported to another like introduction of any required plant for the area in the areas where it is not recorded in the Natural field. This practice is named Ex- situ propagation. This practice needs thorough

testing at different level i.e. level of cultivation, quality of growth, quality of drug and percentage of active principles viz. alkaloid, flavonoids etc.

DISCUSSION

The paper deals with the conservational issues after exploration of medicinal plants in the Ambedkar Nagar, Sant Kabir Nagar and Siddharth Nagar forest divisions falling under respective districts of Uttar Pradesh. Total 267 medicinal plants were recorded from the three districts out of which only 38 medicinal plants were found common in all the three districts. Besides these common plants only 15 were common in Sant Kabir Nagar and Siddharth Nagar and 18 were common to Sant Kabir Nagar and Ambedkar Nagar districts whereas 47 species of medicinal plans were found common in Ambedkar Nagar and Sant Kabir Nagar districts. The increasing demand of medicinal plants by the pharmaceuticals and gradually decreasing positioning of medicinal plants in field due to transforming forest land into agricultural land and repeated use of weedicides is regularly decreasing the distribution of medicinal plants from natural field however, many of the medicinal plants are protective to the crops by supplying plant health alkaloids to the plants for protecting them from various kind of diseases. During various explorations it was observed that there is repeated decrease in the number and quantity of therapeutically important medicinal plants in the natural field. Though the Flora of Upper Gangetic Plains by Duthie (1960) and ethnobotanical studies have been undertaken in past (Kanjilal, 1933; Jain and Rao, 1967; Jain, 1991, 2003; Aminuddin and Singh. 1982; Singh and Maheshwari, 1985,1989, 1992; Singh and Prakash, 1996; Singh, 1997; Asolkar et al., 1992; Singh and Prakash, 1996; Sundriyal et al., 1996; Singh, 1997; Pande, et al., 1998; Pandey et al., 1999; Singh and Singh 2001; Pandey et al., 1999; Pandey, 2002; Kumar et al. 2003a,b, 2005, 2006; Khare, 2007; Babu et al., 2010; Gabriel, et al.,2010; Altundag and Ozturk, 2011; Ugur, et al., 2011; Tetyik et al., 2013: Anonymous and several others). Mitra (1989) has described therapeutic terms used in ethnobotany whereas Rao (1989) has described various techniques used in ethnobotany. Report on various aspects of ethnobotany to the Government of India was prepared and submitted by Pushpangadan (1997). undertaken ethnobotanical studies in Bangladesh. In Turkey, similar studies were also conducted (see Altundag and Ozturk 2011; Hayta et al., 2014). In addition to exploration of ethno medicinal plants from various part of the Country some alkaloid analysis has also been carried out by Aminuddin, 1982; Goenec et al., 2012, 2014 and others. However, the potential of medicinal plants in various areas of the study has not been explored and the present paper deals with the distribution of various medicinal plants at Global Positioning

System as well as quantitative assessment for pharmaceutical utility and conservational purposes. Thus it is concluded that the medicinal plants growing in field needs to be cultivated in association with crop plants to save from use of chemical fertilizers and pesticides etc. After completion of its life cycle such plants act as organic manure supplemented with plant health natural products available in them.

AUTHORS' CONTRIBUTION

Dr. Rama Shankar: Conducted exploration tours in Ambedkar Nagar and Sant Kabir Nagar, identification of plants in field and voucher specimens, designed and prepared the title and manuscript including tables, map and photographs etc.

Dr. S.K. Lale: Conducted exploration tours in Ammbedakar Nagar, Sant Kabir Nagar and Siddharth Nagar forests, identification of plants in field and voucher specimens. Incorporated medicinal uses of plants based on related diseases.

Dr. R.K. Mudaiya: Conducted exploration tour in Sant Kabir Nagar forest areas, identification of plants in field and voucher specimens, accession and maintenance of voucher specimens.

Shri S.K. Gaur: Conducted exploration tours in Siddharth Nagar forests, identification of plants in field and voucher specimens.

Professor (Vaidya) K.S. Dhiman: Administrative part asDirector General, Central Council for Research in Ayurvedic Sciences, Ministry of Ayurveda, Yoga and Natural Pathy, Unani, Siddha and Homoeopathy.

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