Himalayan Medicine System and its Materia Medica

By DP Agrawal

Introduction:

Himalaya has great wealth of medicinal plants and traditional and local knowledge. Central Himalaya Region covers the new state of India which comprising the major divisions of Kumaon and Garhwal. This region has played a significant role in the historical processes of Northern India and provides a mini model for understanding the Indian civilization processes. Through the millennia different tribes and people- Protoaustroloids, Mundas, Kiratas, Mongoloids, Indo-Aryans, Khasas, Sakas and others have been leaving there signatures and producing a mosaic of cultures. Another important view of Himalaya is, its mythological history. It is very interesting to note that this region has the local gods and goddesses who are more powerful then the Brahmanical gods. Such gods go back to prehistoric times. Himalayan concept of diseases is also belonging to these local gods and its super natural powers. They believe that diseases are caused by the supernatural of local gods.

Indian Himalayan region alone supports about 18,440 species of plants (Angiosperms: 8000 spp., Gymnosperm: 44 spp., Pteridophytes: 600 spp., Bryophytes: 1736 spp., Lichens: 1159 spp. and Fungi: 6900 spp. of which about 45% are having medicinal property. According to Samant *et al.* that, of the total species of vascular plants 1748 spp. species are medicinal. The cultural groups of the Central Himalayan Region comprise of Kumaunees, Garhwalees and some tribes like Bhotias, Rajees, Tharus, Boxas, Jaunsarees which have their own different cultures, different traditions, different languages, different customs, etc. Thus Central Himalaya also provide excellent opportunities for studding the Traditional Knowledge System.

Himalayan People:

The people of Himalaya are racially a mixture of various tribes. Shah quotes in his article that the *Vishnu-puran*, the *Mahabharata*, and the *Varit Samhita*-the old ethnical literature of Hindus, mention a number of tribes such as the Sakas, the Nagas, the Kiarats, the Hunas, and the Khasas dwelling on the border of India, which, with confidence, may be referred to the portion of the Himalaya known as Kumaon. The Sakas are pointed out to be among the earliest ruling races of the Kumaon Hills. There are traces of a mysterious serpent race known as Nagas, which were one quite widespread. The Kiarats, or Rajya Karats, were a tribe of foresters of which a trace, still found in some interior region like Askot, represent itself as the descendants of one of the aboriginal princes of Kumaon, who fled with his family to escape destruction threatened by a usurper. The Hunas may be the pastoral tribe occupying parts of the Punjab or they may be Bhotias dwelling along the Northern border of Kumaon. The Khasas were, like the Nagas, a very powerful race whose claim to be Aryan immigrants is generally allowed; they came at a very early period from Central Asia. The Khasa are numerically the most important people in the Kumaon hills.

In this region majority of the population speaks Pahari (Kumaoni and Garhwali) dialect but some tribal like Bhotia, Rajees, Tharus, etc. population speaks their own dialect. Himalayans are simple, superstitious, god fearing, people with their own customs, traditions, and folklore.

What is Traditional knowledge and Himalayan Medicine System?

United Nations University proposal defines Traditional Knowledge System: "Traditional Knowledge or 'local knowledge' is a record of human achievement in comprehending the complexities of life and survival in often unfriendly environments. Traditional knowledge may be technical, social, organizational, or cultural was obtained as part of the great human experiment of survival and developments." Traditional knowledge provides the basis for problem-solving strategies for local communities, especially the poor.

Traditional Himalayan medicine is a good example of TKS, which has affected the lives of people around the globe. Finally, TKS is of particular relevance to the poor in the following sectors or strategies: Agriculture, Animal husbandry and ethnic veterinary medicine, Use and management of natural resources, <u>Primary health care (PHC) and preventive medicine and psycho-social care</u>, Saving and lending, Community development, Poverty alleviation, etc.

According to an estimate of the World Health Organization, approximately 80% of the people in developing countries depend on traditional medicines for primary health care needs; a major portion of these involves the use of medicinal plants (Kumar and Singh, 2001).

Traditional Himalayan Medicine System (THMS) is a great example of TKS where small communities prevent his life for incurable diseases through the traditional methods, which came from their fathers or grand fathers and goes to next generation. They are also curing their animals through these traditional methods also. These traditional methods are totally oral and non-documented. They use generally herbal products like resin, bark, root, etc., soils, animal products and *tantric* practices.

Concept of Himalayan Medicine System:

Diseases are the bane of humankind ever since its advent on this planet. Humans have been fighting against a variety of diseases since prehistoric periods. Eventually he developed an indigenous pattern of medicines, which tries to resist the effects of the diseases.

Primitive Human societies have been depending on plants and plants products for various remedies. In certain areas these folk medical prescriptions are endemic and have survived through ages from one generation to next through the word of mouth. They do not exist as written knowledge. Generally these systems of medicines depend on old people's experiences. The person, prescribing these medicines has no so-called scientific knowledge about the disease. For example, suppose they use a mixture of different leaves in their treatment, but they don't know which specific leaves have the disease fighting properties. Indigenous systems of medicine are specially conditioned by cultural heritage and myths.

The Himalayas have a wide range of herbal products as this region supports approximately 18,440 species of plants. Just like the ancient people, the Himalayan people have close relationship with nature for their basic needs like food, fuel, fodder, medicine, etc. In health care needs they use their own medicine system, which is based on the ancient cultural traditions.

All mythological texts celebrated Central Himalayan Region as a land of gods. But it is very interesting to note that this region has the local gods like Gollu Devata, Lakiya Bhut, Nanda Devi, Bhola Nath, etc. who were originally noble human beings. The local people deified them. These local gods are more powerful then Brahmanical gods. The Himalayan people believe that unhappiness of such local gods is causes of all diseases. In their medical system they use magico-religious therapies and natural therapies against diseases

Himalayan Therapies:

In magico-religious therapies they practices *Jagar, Thau-dham, Bhbhuti, Tantra-mantra*, etc. to placate the local gods and supernatural powers. And in natural therapies, like Ayurveda they use herbal products. According to mode of application, the natural therapies have three categories:

- 1. Herbal products used in systematized system of medicine like Ayurveda, Siddha.
- 2. Herbal products used in ethno-medicine or indigenous medicine like HMS based on oral tradition.
- 3. Herbal products used in Modern medicine, based on active chemical principles of the herbal products.

***** Magico-religious Therapies:

Himalayan people are simple, superstitious, god-fearing people with their own customs, traditions, and folklore. They believe that diseases are caused by unhappiness of local gods. Thus they treat diseases through some magico-therapies. Mostly the magico-religious physicians are called as Poochari who are the mystic-priest of village. Firstly Himalayan people use some folklore medicine but if person does not recover from an affliction after treatment with folklore medicines, his relatives approach the mystic-priest (Poochari). The Poochari tells them whether the patient is under the spell of an evil spirit or under the anger of the local god, or whether he is suffering from some sort of illness. In the latter case, the patient is taken to a village herbal physician for treatment. If the Poochari decides that the patient is under the spell of an evil spirit, he recommends some other mystic-priest who, with the help of hymns, drives the spirit away. Before leaving the patient, the spirit may ask for some rice and pulse or for the sacrifice of a cock, pig, goat, or he may desire some colored cloth. The rice and pulse are left on road crossings. It is believed that the spirit will leave the patient after getting the articles demanded. And at the last Poochari put some ash marks on patient's, forehead which is locally, called as *Bhabhuti*. If the Poochari says the patient is under the anger of the local god, he recommends a magico-religious ceremony known as *Jagar* to placate the god.

Jagar is always held at night. A large room in the patient's house is cleaned and fitted with articles worship such as fruit, cereals, milk, curd, ghee, sweet, etc. It is decorated with various flowers and branches of some especial trees.

The *Jagari* who is the hymn chanter and conductor of the ceremony, the *Dangaria* (the dancer who acts as a medium for the appearance of the god), and the relatives and friends are seated in ceremonial room. A crude drum (*nagara*) and a metallic plate (*thali*) are played, the *Jagari* chants hymns, and the *Dangaria* begins to dance. When the dance and

the music reach their climax, the patient's household god speaks through the medium of the *Dangaria*. The relatives ask the god-in-medium the cause of his anger. He tells the cause, which may be, among other reasons, that the patient did not worship him properly or that he did not give him a sufficient share from his earnings. As a penalty the god may demand a simple *Khichari* (a mixture of uncooked rice, pulses, chillies, and salt); a sacrifice of a goat, pig, cock, or coconut; a continuous *Jagar* for 20 days or so; or simple worship at home or in a particular temple. Every Himalayan people fulfill the demands of the god because failure to do so may result in serious consequences not only to the patient but also to his family One may witness such a magico-religious ceremony in any village of Himalaya, even among the learned classes. About 50% of the patients are cured by it.

❖ Natural therapies

India is a country rich in indigenous herbal resources and traditionally the vast population is accustomed to the use of several herbal folk medicines.

The use of plants for treatment in India dates back to prehistoric times. This indigenous knowledge about medicinal plants and therapies was composed verbally and passed orally from generation to generation. Much later, some of this information was composed in treatise form like *Rigveda*, *Yajurveda*, *Charak Samhita*, *Sushrut Samhita*, etc. These systematized systems of knowledge about medicinal plants and therapies are included under Ayurveda - the Indian Traditional Medicine System.

Despite significant development of rural health services, village people still use herbal folk medicines to a good extent for treatment of common ailments like cough, cold and fever, headache and body-ache, constipation and dysentery, burns, cuts and scalds, boils and ulcers, skin diseases and respiratory troubles, and others.

The Himalayas have a wide range of herbal products as this region supports approximately 18,440 species of plants. Just like the ancient people, the Himalayan people have close relationship with nature for their basic needs like food, fuel, fodder, medicine, etc. in health care, they use their own medicine system, which is based on the ancient cultural traditions.



Aconitum atrox



Rhododendron arboreum

The herbal medicines are prescribed by the following modes: household ladies, elder person, Poochari, Ojhas (physicians practicing witchcraft.) etc., traditional herbalists.

Household ladies

The Indian household ladies use herbal drugs for most of the ordinary ailments of infants and children. The herbal drugs are mostly available to them from their kitchen stock, kitchen garden or village fields and from the village bazaar.

The use of rhizome of *Curcuma domestica* (Haldi) for cuts, bums and scalds, the fruits of *Piper nigrum* (Black pepper, Kali- mirch or Gol-mirch) for coughs and colds, the fruits of *Trachyspermum ammi* (Ajawain) and resin of *Ferula* spp. (Heeng) for stomach troubles and whooping cough, the seeds of *Sesamum indicum* (Til) for ulcers and boils, etc., are well known to Indian house ladies.

The use of infusions of the leaves of *Ocimum sanctum* (Tulsi) for coughs and colds and mild fever, fomentation with the hot leaves of *Ricinus communis* (Erand) and *Aloe barbadensis* (Geekuar) for relieving inflammations, swellings of joints and sprains, and many other home remedies are learnt traditionally in the home.

Elderly persons

In the villages the elderly persons, Poochari, Ojhas, and priests, *etc.*, know quite a few herbal drugs, which grow near at hand and try them without any hesitation against several common ailments and diseases. Their services are entirely philanthropic.

Traditional herbalists

Traditional herbalists are professionals. They are mostly illiterate but have considerable knowledge of the herbal drugs and their uses. They keep stocks of crude drugs for sale and prescribe these for common ailments. The traditional herbalists maintain a small shop.

There is another kind of herbalist, who is roamers. Among these there are two categories: those who administer a pounded mixture of herbal drugs, and those who prescribe and also supply the herbal drugs as such.

The first category of herbalists keep their crude drugs in glass jars and often displays them at the roadside. Mostly they procure their drugs from established crude drug markets of Northern India. They administer drugs mainly for venereal ailments and as tonics and aphrodisiacs. The most common herbal drugs seen with them are the tuberous roots of *Orchis* spp. (Salam panja or Salam gatta), the roots of *Asparagus* spp. (Satawar), *Withania somnifera* (Ashwagandha), the fruits of *Tribulus terrestris* (Chota gokhru), and *Pedalium murex* (Bara gokhru), seeds of *Mucuna pruriens* (Kiwanch), *Entadapursaetha* (Chian, gila), stems of *Tinospora cordifolia* (Giloya), the tubers of *Pueraria tuberosa* (Vidari kanda), and others.

The second category of herbalists administers the herbal drugs directly without pounding; they keep only a limited number of crude drugs for day- to-day maladies. The drugs, which they commonly keep, are fruits of *Terminalia chebula* (Harra), *T. belerica* (Bahera), *Emblica officinalis* (Awanla), *Helicteres isora* (Marorphali), bark of *Symplocos* sp.

(Pathani lodhra), roots of *Withania somnifera* (Aswagandha nagori), and seeds and oleoresins of various plants.

In the hills, the herbalists are often seen also with crude drugs procured from the alpine regions, like *Rheum* spp. (Dolu), *Aconitum heterophyllum* (Atis), *Picrorhiza kurooa* (Karu), *Angelica glauca* (Chora or gandrayan), *Nardostachys jatamansi* (Mansi), and the flavorings leaves of *Allium govanianum* and other *Allium* spp. (Uambu), and many others.

Materia Medica of Himalayan Medicine System

The materia medica of Himalayan Medicines is very vast compared to that of other indigenous systems of medicine. In the usage of generally herbal products, like plant bark, resin, leave, root, rhizome, stem, etc. and also usage some minerals and chemicals in the natural form like red soil, black soil, etc. In following list we describe some Himalayan folk medicinal important plants:

S.	Name of Plants	Family	Part Use	Diseases
No.	Abelmoschus esculentus	Malvaceae	RT	Venereal diseases
2	Abies pindrow	Pinaceae	LF, RE, BK	Cough, cold, rheumatism, ulcer
3	Abies spectabilis	Pinaceae	LF	Carminative, pthesis
4	Abrus precatorius	Fabaceae	LF, SD	Diabetes, menstruation, cough, fever, asthma
5	Acacia catechu	Mimosaceae	BK	Diarrhoea
6	Acacia nilotica	Mimosaceae	FL	Urinary trouble
7	Achyranthes aspera	Amaranthaceae	ST, FR, RT, LF, WP, WP, SD,	Pyorrhoea, appetite, Muscular cramps, mouth-blisters, cough, cold, scorpion sting, snake-bite, piles, check bleeding, boils, blisters, cataract, Cuts, spermatorrhoea, skin diseases, headache, stomachache, toothache, body-ache, dysentery, ear trouble, ribs pain, eye trouble, anti-fertility in women
8	Achyranthes bidentata	Amaranthaceae	WP	Diuretic, astringent, fever, jaundice, cough
9	Aconitum atrox	Ranunculaceae	RH, RT,	Rheumatism, neuralgia, paralysis, dyspepsia, phthisis, rheumatic fever, puerperal fever, asthma, snake-bite,

				stomachache, fever
10	Aconitum balfourii	Ranunculaceae	RT, TU,	Septics, boils, stomachache, tonsil, gastritis, leprosy, rheumatism, swelling, wounds
11	Aconitum falconeri	Ranunculaceae	RT	Paralysis, sciatica, gout, fever, rheumatism, diarrhoea
12	Aconitum heterophyllum	Ranunculaceae	RT, TU,	Diarrhoea, fever, vomiting, cough, chills, stomach ache, gastrointestinal disorders, digestive disorders, fever, colic pain, wormicide headache, dyspepsia, piles, gastric, dysentery
13	Aconitum voilaceum	Ranunculaceae	RT, TU	Stomachache, fever, abdominal pain, bronchitis, cough, epilepsy, headache, inflammation, neck pain, snake-bite, lice killer, Gastrointestinal troubles, renal pain, rheumatism
14	Acorus calamus	Araceae	RT, RH	Warm Killer, menstrual disorders, improve lost voice, abdominal pains, inflammation, neck pain, asthma, cough, cold, rheumatism, gout, stomach trouble
15	Adenostemna lavenia	Asteraceae	LF	As antiseptic, insect bite, cuts, wounds
16	Adhatoda vasica	Acanthaceae	LF, WD, RT	Fever, Cough, eye diseases, blood diseases
17	Adiantum capillus-veneris	Adiantaceae	FD	Cough, mouth blisters, eye diseases
18	Adiantum edgeworthii	Adiantaceae	FD	Mouth blisters
19	Adiantum incisum	Adiantaceae	FD	Mouth blister, bronchitis
20	Adiantum junulatum	Adiantaceae	ST	Nose-studs, ear-studs
21	Adiantum lunulatum	Adiantaceae	FD, ST	Fever, nose studs, ear studs
22	Adiantum venustum	Adiantaceae	FD	Cold, cough, bronchitis, Fever, expectorant, diuretic

23	Aegle marmelos .	Rutaceae	FR, LF	Toothache, vomiting, worm killer, throat-ache, rheumatism, diarrhoea, dysentery
24	Aerides multiflorum	Orchidaceae	ВВ	Cuts, wounds
25	Aesculus indica	Hippocastanaceae	FR, SD, LF, RT	Fistula, rheumatic, leucorrhoea, rheumatism
26	Ageratum conyzoides	Asteraceae	LF	Piles
27	Ainsliaea aptera	Asteraceae	RT	Stomachache
28	Ajuga bracteosa	Lamiaceae	LF, RT	Jaundice, leucorrhoea, blood purifier, fever, worm killer,
29	Ajuga parviflora	Lamiaceae	LF, SD	Jaundice, ascariasis, fever, stomachache
30	Allium cepa	Liliaceae	BB, LF	Ear trouble, earache, vomiting, piles, jaundice, anthelmintic, asthma, nose bleeding, blisters, boils, bronchitis, diuretic, expectorant, eye trouble, giddiness, insect bites, itching, skin diseases, wounds
31	Allium consanguineum	Liliaceae	LF	Indigestion flatulence
32	Allium humile	Liliaceae	BB, LF	Asthma, stomach diseases, jaundice, cold, cough
33	Allium sativum	Liliaceae	BB, CL	Cholera, treat abscesses, rheumatic pain, gout, scorpion, bruises
34	Allium stracheyi	Liliaceae	LF	Jaundice, cold, cough
35	Allium victorialis	Liliaceae	LF	Cuts, wounds, check bleeding
36	Allium wallichii	Liliaceae	ВВ	Pectoral diseases
37	Aloe brabadense	Liliaceae	LF	Eye trouble, headache
38	Aloe vera	Liliaceae	PU	Inflammation of the body
39	Alstonia scholaris	Apocynaceae	LT	Asthma, tuberculosis, leucorrhoea
40	Alysicarpus vaginalis	Fabaceae	RT	Cough
41	Amaranthus vridis	Amaranthaceae	RT	Urinary disorders

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42	Amorphophallus paeoniifolius	Araceae	RT	Piles, scabies, abortion, boils
43	Anagalis arvensis L.	Primulaceae	WP, SD	Diphtheria
44	Anaphalis adnata	Asteraceae	FL	Check bleeding
45	Anaphalis contorta	Asteraceae	LF	Check bleeding
46	Anaphalis triplinervis	Asteraceae	WP	Diuretic
47	Anemone obtusiloba	Ranunculaceae	RT, SD	Rheumatism
48	Anemone polyanthes	Ranunculaceae	SD	Food poisoning
49	Anemone rivularis	Ranunculaceae	LF, WP	Ear pain, maggots in sores, bone fracture
50	Angelica glauca	Apiaceae	RT, FR, ST	Flatulence, colic, constipation, digestive disorder, stomachache, constipation, dvspepsia, cough, indigestion, vomiting, eye diseases, power tonic, dysentery, gastric troubles, menorrhoea
51	Anisomeles indica	Lamiaceae	WP	Carminative, astringent, tonic
52	Anogeissus latifolia	Combretaceae	RT	Puerperal fever
53	Arabidopsis thaliana	Brassicaceae	WP	Mouth sores
54	Arctium lappa	Asteraceae	RT	Gastric trouble
55	Areca catechu	Arecaceae	NT	Power tonic
56	Argemone mexicana	Papaveraceae	RT, WP	Leucorrhoea, wound
57	Arisaema flavum	Araceae	ВВ	Skin diseases
58	Arisaema jacquemontii	Araceae	ВВ	Ringworm killer, skin diseases
59	Arisaema wallichianum	Araceae	RT	Erysipelas, scabies
60	Arnebia benthamii	Boraginaceae	RT, WP	Cuts, wounds, as excellent, as antiseptic, hair tonic
61	Arnebia euchroma	Boraginaceae	RT	As hair tonic
62	Artemisia maritima	Asteraceae	LF, WP	As incense, cuts, gastric, anthelmintic, as antiseptic,

				blood purifier
63	Artemisia nilagarica	Asteraceae	LF, WP	Cuts, wounds, Ulcer, as antiseptic, ear trouble, abscess, analgesic, anthelmintic, asthma, ear troubles, epilepsy
64	Artemisia vulgaris	Asteraceae	LF	Ulcer, ear trouble
65	Arundinaria falcata	Poaceae	WP	Abscesses
66	Asparagus adscendens	Liliaceae	RT	Strength, vitality
67	Asparagus curillus	Liliaceae	RT	Gonorrhoea, piles, diabetes, rejuvenating tonic
68	Asparagus filicinus	Liliaceae	RT	Sexual debility, urinogenital disorders
69	Astilbe rivularis BuchHam.	Saxifragaceae	LF	Toothache
70	Astragalus aegacanthoides	Fabaceae	RT	Burns, boils, skin diseases
71	Astragalus candolleanus	Fabaceae	WP	Leprosy, tuberculosis, bringing fertility to barren women
72	Axyris amaranthoides	Chenopodiaceae	WP	Boils, wounds
73	Azadirachta indica	Meliaceae	SD, LF, FL, FR, BK	Diabetes, scabies, fever, scorpion sting, snake-bite
74	Barleria cristata	Acanthaceae	RT, LF	Swelling, cough, snake-bite
75	Barleria prionitis	Acanthaceae	LF	Irritation, piles
76	Barringtonia acutangula	Barringtoniaceae	BK	Weakness
77	Basella alba	Basellaceae	LF	Boils, blisters
78	Bauhinia roxburghiana	Caesalpiniaceae	LF, FL	Blood dysentery
79	Bauhinia variegata	Caesalpiniaceae	BU, FL	Diarrhoea, dysentery, tumors, stomach disorders
80	Begonia picta	Begoniaceae	WP	Fever, stomachache
81	Berberis aristata	Berberidaceae	BK, RT	Cold, fever, conjunctivitis, malaria, typhoid, leucorrhoea, hemorrhoids, jaundice, snake- bite, boils, anticancer, blood pressure
82	Berberis asiatica Roxb.	Berberidaceae	BK, LF, RT	Stomach trouble, eye trouble, snakebite, ear trouble, piles,

				malaria
83	Berberis jaeschkeana	Berberidaceae	RT, FL	Astringent, blood purifier, diuretic, eye diseases, jaundice, skin diseases
84	Berberis kumaonensis	Berberidaceae	RT, FR	Blood purifier, diuretic, eye trouble, jaundice, skin diseases
85	Berberis lycium	Berberidaceae	RT, BK, FR	Eye trouble, ear trouble
86	Berberis pseudumbellata	Berberidaceae	RT, LF	Intestinal disorders, throatache
87	Bergenia ciliata	Saxifragaceae	RT	Constipation, dysentery, kidney stones, gall bladder stones, painful and small urination, wormicide, boils, wounds, burn, piles, urinary trouble, asthma, fever
88	Bergenia himalaica	Saxifragaceae	RT	Cuts, boils, wounds, burns, dysentery
89	Bergenia ligulata	Saxifragaceae	RT, LF, RH	Burns, boils, fever, wounds, asthma, boils, cuts, liver trouble, ophtalmia, piles, thirst, kidney stone, diarrhoea
90	Bergenia stracheyi	Saxifragaceae	RT, LF	Kidney stones, sores, swelling, power tonic, cuts, boils, wounds, burns, diuretic, fever
91	Beta vulgaris	Chenopodiaceae	RT	Piles
92	Betula alnoides	Betulaceae	BK	Eye diseases
93	Betula utilis	Betulaceae	RE, BK	Cuts, burns, wounds, hysteria, jaundice, ear pain, asthma, cough, cold, internal injury, hysteria, menstruation
94	Bidens pilosa	Asteraceae	WP	Cough, cut, diarrhoea, ear trouble, headache, eye trouble, inflamation, leprosy, skin diseases, snakebite, sores, wounds
95	Blumea laciniata	Asteraceae	LF	Eczema, skin diseases
96	Boerhavia diffusa	Nyctaginaceae	RT, LF	Jaundice, asthma, urinary disorders, snake-bite
97	Bombax ceiba	Bombacaceae	RT	Family planning, leucorrhoea

98	Brassica campestris	Brassicaceae	OI	Eczema
99	Brassica juncea	Brassicaceae	SD	Pills, boils
100	Brassica rugosa	Brassicaceae	SD	As anthelmintic
101	Bridelia retusa	Euphorbiaceae	BK	Gum diseases
102	Bryonopsis laciniosa	Cucurbitaceae	WP	Snake-bite
103	Buchanania lanzoa	Anacardiaceae	KE, GU	Skin diseases, snake-bite
104	Bupleurum falcatum	Apiaceae	RT	Liver trouble, abdominal inflammation, fever
105	Butea minor	Fabaceae	LF	Anthelmintic, boils, skin diseases
106	Caesalpinia bonduc	Caesalpiniaceae	RT	Malarial fever
107	Caesalpinia crista	Caesalpiniaceae	FL	Epilepsy
108	Caesulia axillaries	Asteraceae	WP	Cuts, boils
109	Callicarpa arborea	Verbinaceae	LF, FR, RT, WD	Mouth-sores, lip-sores
110	Callicarpa macrophylla	Verbinaceae	LT, LF	Body swelling, mouth sores, rheumatism
111	Calotropis gigantea	Asclepiadaceae	LT, RT	Scorpion sting, rheumatic pain, toothache
112	Calotropis gigantean	Asclepiadaceae	RT, FL, LT	Rheumatic pain, toothache, leprosy, ear trouble, boils
113	Calotropis procera	Asclepiadaceae	RT, FL, LT	Cholera, spines, urine trouble, toothache
114	Canna indica	Cannaceae	RT	Boils
115	Cannabis sativa	Cannabinaceae	LF, BK, SD, FL, FR	Cuts, cold, constipation, gastric trouble, piles, blisters, boils, stomachache, wounds, appetite, bowel troubles, bronchitis, dyspepsia, ear trouble, skin diseases, sores
116	Capparis sepiaria	Capparaceae	FR	Typhoid
117	Capsella bursa-pastoris	Brassicaceae	WP	Blood pressure, diarrhoea, dropsy
118	Capsicum annuum	Solanaceae	LF	Burns, dog-bite, eye diseases

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119	Carica papaya	Caricaceae	FR	Stomach trouble
120	Carum carvi	Apiaceae	SD	Gastric dysfunctions, stomachache, carminative, cold, cough, fever
121	Cassia absus	Caesalpiniaceae	LF	Cough
122	Cassia occidentalis	Caesalpiniaceae	LF	Piles, diuretic tonic, dropsy, fever, rheumatism, eczema, snake-bite
123	Cassia sophera	Caesalpiniaceae	LF	Piles, itching
124	Cassia tora	Caesalpiniaceae	SD, RT	Cold, worm killer, malarial fever
125	Catunaregam uliginosa	Rubiaceae	SD	Diphtheria
126	Cedrus deodara	Pinaceae	WD, RE, ST	Scabies, boils, blisters, itching, worm killer, Fever, dysentery, rheumatic pain, piles, ulcers, skin diseases
127	Celastrus paniculatus	Celastraceae	FR, SD	Haemorrhoids, piles, gout rheumatism, cold, dysentery, diarrhoea, leprosy, snake-bite, wounds
128	Centella asiatica	Apiaceae	LF	Painful and slow urination, Eye trouble, fever, snake-bite, brain tonic, malaria, cholera
129	Cerastium cerastoides	Caryophyllaceae	WP	Body-ache, headache, renal pain, cough
130	Cerastium vulgatum	Caryophyllaceae	WP	Fever
131	Cheillanthes farinose	Chulanthaceae	ST	Nose-studs, ear-studs
132	Chenopodium album	Chenopodiaceae	SD, LF	Stomach trouble, piles
133	Chenopodium ambrosioides	Chenopodiaceae	LF	Piles
134	Chenopodium botrys	Chenopodiaceae	WP	Itch, septics
135	Cicer arietinum	Fabaceae	FR	Remove dandruff
136	Cinnamomum tamala	Lauraceae	LF, BK	Cold, cough, lumbago, heart troubles
137	Cissampelos pareira	Menispermaceae	LF, RT	Diabetes, diphtheria, eye trouble, pimple, boils, burns, fever

138	Cissus quadrangularis	Vitaceae	ST	Bone fracture
139	Citrus arietinum	Rutaceae	FR	Remove constipation
140	Citrus hystrix DC.	Rutaceae	FR	Vomiting, worm killer
141	Citrus medica	Rutaceae	FR, RT, SD	Cold, cough, typhoid, Stomach trouble, diarrhea, fever, bruises
142	Clausena excavata	Rutaceae	AP	Menorrhagia
143	Clematis barbellata	Ranunculaceae	WP	Itching, skin diseases
144	Clematis grata	Ranunculaceae	LF	Cuts
145	Clerodendrum viscosum	Verbenaceae	RT	Spermatorrhoea
146	Clinopodium vulgare L.	Lamiaceae	LF, INF	Astringent, carminative, hearth tonic
147	Coccinia grandis	Cucurbitaceae	RT	Kidney stone, gall bladder stone
148	Coelogyne stricta	Orchidaceae	ВВ	Bone fracture, fever, headache
149	Colebrooekea oppositifolia	Lamiaceae	LF, RT	Cataract, epilepsy, wounds, bruises
150	Coleus forsskohlii	Lamiaceae	RT	Constipation
151	Commelina bengalensis	Commelinaceae	LF, RT	Fever, diarrhoea, liver disorder
152	Convolvulus arvensis	Convolvulaceae	LF	Piles
153	Coriandrum sativum	Apiaceae	SD	Urinary disorders
154	Cortia depressa	Apiaceae	WP	Rheumatism, sedative, stomachache
155	Corydalis govaniana	Fumariaceae	RT	Suppressed urination, muscular, gastric pain, fever, liver trouble, diuretic, eye trouble
156	Costus speciosus	Zingiberaceae	RH	Boils
157	Cotoneaster microphyllus	Rosaceae	RT	Scrofula
158	Crateva magna	Capparaceae	BK, RT	Diphtheria
159	Cucumis melo	Cucurbitaceae	SD, FR	Urine trouble, renal trouble, stomach disorder

160	Cucumis sativus	Cucurbitaceae	FR	Pneumonia
161	Cucurbita maxima	Cucurbitaceae	FR, SD	Burns, intestinal worms
162	Curculigo orchioides Gaertn.	Amaryllidaceae	TU	Spermatorrhoea, wounds, snake-bite, asthma, piles, stomach disorders, scorpion bite, wounds, skin diseases, itching, cough, cold
163	Curcuma amada	Zingiberaceae	RH	Stomachache
164	Curcuma domestica	Zingiberaceae	RH	Wounds, cough, swelling, insect sting
165	Cuscuta reflexa	Cuscutaceae	ST, SD	Stomach, warts, hair tonic, menstrual, rheumatism, gout, jaundice, itch, fever
166	Cynodon dactylon	Poaceae	LF	Vomiting, cuts, check bleeding, wounds
167	Cynoglossum glochidiatum	Boraginaceae	RT	Cuts, wounds, ulcer, swelling
168	Cyperus rotundus	Cyperaceae	RH	Dog bite, malarial fever
169	Dactylorrhiza hatagirea	Orchidaceae	RT, TU	Cuts, wounds, bone fracture, astringent, expectorant, tonic, diarrhoea, dysentery, chronic fever
170	Dalbergia sissoo	Papilionaceae	SD	Rheumatic pain, skin diseases
171	Daphne papyraceae	Thymeliaceae	WP	Purgative, febrifuge
172	Datura metel	Solanaceae	LF, SD, RT	Fistula, gum trouble, pyorrhoea, asthma
173	Delphinium brunonianum	Ranunculaceae	LF	Cut, burn
174	Delphinium denudatum	Ranunculaceae	RT	Contusions, ulcer, toothache, abdominal pain, respiratory disorders, ulcer
175	Delphinium vestitum	Ranunculaceae	WP	Snake bite, cuts, wounds, fever, diarrhoea
176	Dendrophthoe falcata	Loranthaceae	LF	Spermatorrhoea
177	Desmodium oojeinense	Fabaceae	BK	Low blood pressure
178	Desmodium heterocarpon	Fabaceae	WP	Cough, fainting, convulsion
179	Didymocarpus pedicellata	Gesneriaceae	LF	Kidney, bladder stone
180	Dioscorea belophylla.	Dioscoreaceae	RT	Blood purifier

181	Dioscorea bulbifera	Dioscoreaceae	TU	Check conception, bronchial cough, cold
182	Dioscorea deltoids	Dioscoreaceae	RH	Spermatonorrhoea
183	Dioscorea kumaonensis	Dioscoreaceae	TU	Arthritis, rheumatism
184	Diplocyclos palmatus	Cucurbitaceae	FR	Chronic constipation, stomachache
185	Diploknema butyracea	Sapotaceae	SD	Skin diseases
186	Dioscorea deltoidea	Dioscoreaceae	TU	Piles, dysentery
187	Dolichos uniflorus	Fabaceae	FR	Kidney stone
188	Drosera peltata	Droseraceae	LF	Skin blister, epilepsy
189	Drimia indica	Liliaceae	ВВ	Decay of finger, snake-bite
190	Echinochloa frumentacea	Poaceae	SD	Sterility
191	Echinops echinatus	Asteraceae	RT	Stomachache, colic
192	Ehretia laevis	Ehretiaceae	BK	Diphtheria
193	Elaeagnus parviflora	Elaeagnaceae	WP	Pulmonary disorders
194	Eleusine coracana	Poaceae	FR	Boils, cough, delivery
195	Elsholtzia densa	Lamiaceae	LF, SD	Burns, cuts
196	Elsholtzia strobilifera	Lamiaceae	LF, INF, FL	Internal burn
197	Embelia robusta	Myrsinaceae	LF, BK, FR	Skin diseases, burns, blood purifier, cholera, diarrhoea, throat disorders, ulcer, wormicidal
198	Emblica officinalis	Euphorbiaceae	FR	As Purgative, diuretic, digestive trouble
199	Emilia sonchifolia	Asteraceae	RT, LF	Febrifuge, night blindness
200	Ephedra gerardiana	Ephedraceae	LF, RT, ST	Eye trouble, bronchial disorders, cardiac trouble, wounds, headache, rheumatism, asthma
201	Equisetum debile	Eqisetaceae	WP	Bone fracture
202	Eucalyptus tereticornis	Myrtaceae	LF	Cough, cold, headache
203	Eugenia jambolana	Myrtaceae	BK	Diarrhoea

204	Eulophia dabia	Orchidaceae	TU	Cold, cough, blood purifier, sexual diseases
205	Euonymus tingens	Celastraceae	BK, RT	Eye diseases, constipation, dyspepsia, headache, dysentery
206	Euphorbia hirta	Euphorbiaceae	AP, LT	Piles, Blood stopper, suppuration, cough, fever, dysentery, bronchial, asthma
207	Euphorbia hypericifolia	Euphorbiaceae	LF	Dysentery, lucoderma
208	Euphorbia neriifolia	Euphorbiaceae	LT	Otorrhoea, regenerate hair
209	Euphorbia nivulia	Euphorbiaceae	LT	Boils, blisters
210	Eurya accuminata	Theaceae	ВК	Scurvy
211	Evolvulus alsinoides	Convolvulaceae	RT, LF	Fever, dysentery
212	Fagopyrum dibotrys	Polygonaceae	LF	Skin diseases
213	Fagopyrum esculentum	Polygonaceae	RT, LF, FR	Rheumatic pain, typhoid, urinary disorders, lung disorders
214	Ficus auriculata	Moraceae	FR	Stomachache, dysentery
215	Ficus bengalensis	Moraceae	LT, RT	Spermatorrhoea, diabetes
216	Ficus palmate	Moraceae	LT, FR	Boils, dysentery
217	Ficus racemosa	Moraceae	LT, FR	Menorrhagia, internal wounds, piles, diarrhoea, dysentery
218	Ficus religiosa	Moraceae	LF, LT, BK	Bronchial asthma, improve female fertility, ear trouble, snake-bite
219	Ficus roxburghii	Moraceae	FR	Hyperacidity
220	Flemingia strobilifera	Fabaceae	WP	Rheumatic pain
221	Foeniculum vulgare	Apiaceae	WP	Vomiting
222	Fragaria vesica	Rosaceae	RT, LF	Headache, inflammation
223	Fritillaria roylei	Liliaceae	ВВ	Asthma, bronchitis, burns, stomach trouble, tonic
224	Fumaria indica	Fumariaceae	AP	Fever
225	Fumaria parviflora	Fumariaceae	WP	Fever, influenza

226	Gaesalpinia bonduc	Caesalpiniaceae	SD	Stomachache
227	Galinsoga parviflora	Asterace	LF	Ear ache
228	Galium acutum	Rubiaceae	WP	Antiscorb, diuretic, skin diseases
229	Galium rotundifolium	Rubiaceae	WP	Bronchitis, sorethroat, tonsil, wounds
230	Gaultheria fragrantissima	Ericaceae	LF, FR	Cough, cold
231	Gaultheria nummularioides	Ericaceae	LF, FR	Carminative, stimulent
232	Geaster mammosum	Geastraceae	SP	Burn, otorrhoea, earache, wounds, umbilical sepsis
233	Gentiana stipitata	Gentianaceae	RT	Urinary infection
234	Gentiana kuroo	Gentianaceae	LF	Bronchial asthma
235	Geranium nepalense	Geraniaceae	RT	Renal diseases, cuts, jaundice, toothache, ulcer, wounds, stomach disorders
236	Geranium ocellatum	Geraniaceae	WP	Diuretic
237	Geranium wallichiana	Geraniaceae	RT	Dysentery, diarrhoea, astringent, ear trouble, eye trouble, toothache
238	Gerbera gossypina	Asteraceae	RT	Menstrual disorders, blood pressure, gastric
239	Geum elatum	Rosaceae	RT	Astringent, dysentery, diarrhoea
240	Giraadinia diversifolia	Urticaceae	RT	Spermatorrhoea
241	Gloriosa superba	Liliaceae	RT	Painful delivery, skin diseases, gonorrhea, piles, snake-bite, scorpian stings, tumour, rheumatism, intermittent fever, leprosy
242	Glycine max	Papilionaceae	SD	Jaundice
243	Gonatanthus pumilus	Araceae	RT	Boils, sores
244	Grewia asiatica	Tiliaceae	BK	Gonorrhoea
245	Grewia hirsuta	Tiliaceae	RT	Spematorrhoea
246	Grewia optiva	Tiliaceae	RT	Bone fracture
247	Grewia subinaequalis	Tiliaceae	BK	Bone fractures

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248	Gymnadenia orchidis	Orchidaceae	RT	Urinary, gastric, gonadic disorders
249	Hedera nepalensis	Araliaceae	LF, FR	Rheumatism
250	Hedychium acuminatum	Zingiberaceae	RT	Dyspepsia, piles
251	Hedychium spicata	Zingiberaceae	RH	Gastric trouble, asthma, vomiting, blood purifier
252	Hedychium spicatum	Zingiberaceae	RH	Cuts, wounds, internal injuries, asthma, vomiting, gastric, blood purifier, bronchitis
253	Hedyotis corymbosa	Rubiaceae	WP	Stomachache
254	Heracleum candicans	Apiaceae	RT, FR	Leucoderma, menstrual disorders
255	Hibiscus rosa-sinensis	Malvaceae	FL	Delivery
256	Hippophae salicifolia	Elaeagnaceae	BK, FR	Cuts, ulcer, wounds
257	Hippophae rhamnoides	Elaeagnaceae	FR	Cardiac trouble, cold, cough
258	Hoelboellia latifolia	Lardizabalaceae	LF	Burns
259	Holoptelea integrifolia	Ulmaceae	BK	Leucoderma, scabies, skin diseases
260	Hoya longifolia	Asclepiadaceae	AP	Wounds, cuts
261	Hyoscyamus niger	Solanaceae.	SD	Tooth ache, hysteria, muscle pain, whooping, cough, astringent
262	Hypericum cernuum	Linaceae	FL	Wounds, boils
263	Ilex dipyrena	Aquifoliaceae	BK	Ascariasis
264	Impatiens gigantean	Balsaminaceae	AP, SD	Wounds, scarcity, burn
265	Indoneesiella echioides	Acanthaceae	LF	Malaria
266	Inula cappa	Asteraceae	RT	Stomachache, dysentery, indigestion
267	Ipomoea carnea	Cnvolvulaceae	LF	Rheumatism, gout, cuts, boils
268	Ipomoea nil	Convolvulaceae	LF	Skin diseases
269	Iris kumaonensis	Iridaceae	RT, LF	Urinary, kidney disorders, fever

270	Ixeris sagittarioides	Asteraceae	RT	Snake-bite
271	Jasminum dispurmum	Oleaceae	FL	Earache
272	Jasminum humile	Oleaceae	BK, RT	Sinus, skin diseases
273	Juglans regia	Juglandaceae	BK, LF, FR	Herpes, eczema, scrophula, syphilis, tooth diseases, scrofula, syphilis, pyorrhoea, toa sores
274	Juniperus indica	Cupressaceae	FR	Incense
275	Juniperus wallichiana	Cupressaceae	LF	Anti phlegm, biles, tension, depression, frustration, blood purifier
276	Jurinea dolomiea	Asteraceae	RT	Sores
277	Jurinea macrocephala	Asteraceae	RT	Eruptions, colic, intermittent fever
278	Jurinella macrocephalla	Asteraceae	RT	Colic, fever, as antiseptic, eruption, laxative
279	Justicia adhatoda	Acanthaceae	RT	Cold, fever
280	Kigelia pinnata	Bignoniaceae	FR	Skin diseases, eczema
281	Lablab purpureus	Fabaceae	LF	Skin diseases
282	Lantana indica	Verbenaceae	LF	Chicken pox, cuts, wounds
283	Launaea fallax	Asteraceae	RT	Leucorrhoea
284	Lawsonia inermis	Lythraceae	LF	Blood dysentery
285	Lepidium ruderale	Cruciferae	WP	Skin diseases
286	Leucas cephalotes	Lamiaceae	RT, LF	Stomatitis, scorpion sting
287	Leucas lanata	Lamiaceae	LF	Wounds, check bleeding, heating
288	Lindenbergia indica	Scrophulariaceae	LF	Skin eruption, chronic bronchitis, sore throat, toothache
289	Litsea glutinosa	Lauraceae	BK	Bone fracture
290	Litsea umbrosa	Lauraceae	SD	Skin diseases, wounds
291	Lobelia pyramidalis	Lobeliaceae	LF	Asthma
292	Lomatogonium cariathiacum	Gentianaceae	WP	Antipyretic, cold, cough

293	Luffa aegyptica	Cucurbitaceae	FR	Jaundice
294	Luffa graveolens	Cucurbitaceae	FR	Fever, eye diseases
295	Lychnis indica	Caryphallaceae	LF	Eye trouble
296	Lychnis inflata	Caryphallaceae	WP	Fever
297	Lyonia ovalifolia	Ericaceae.	LF, BB	Scabies, itching, skin diseases
298	Magnifera indica	Anacardiaceae	BK	Impotency, jaundice
299	Maharanga emodi	Boraginaceae	WP	Skin diseases, rheumatism, urinary disorders
300	Mahonia nepaulensis	Berberidaceae	RT, BK	Eye cataracts
301	Malaxis muscifera	Orchidaceae	ВВ	Wounds, bone fracture, burns
302	Mallotus philippinensis	Euphorbiaceae	FR, RT, SD	Stomachache
303	Malva parviflora	Malvaceae	SD	Cough, ulcer
304	Marsdenia roylei	Asclepiadaceae	FR	Cold, cough
305	Martynia annua	Martyniaceae	FR	Scorpion sting
306	Meconopsis aculeata	Papaveraceae	WP	Fever, renal pain, colic, backache
307	Megacarpea polyandra	Brassicaceae	RT	Fever, stomach ache, dysentery
308	Melia azedarach	Meliaceae	SD, LF	Impotency, boils
309	Melothria heterophylla	Cucurbitaceae	RT, LF, FR	Antifertility, cuts, diabetes, fever, stomachache
310	Mentha longifolia	Lamiaceae	LF	Cholera, dysentery
311	Mentha piperata	Lamiaceae	WP	Gastro-intestinal trouble, fever
312	Micromeria biflora	Lamiaceae	WP	Eczema
313	Milletia extensa	Caesalpiniaceae	RT	Stomachache, conception
314	Momordica charantia	Cucurbitaceae	FR	Eczema, diabetes
315	Nardostachys grandiflora	Valerianaceae	RT	Epilepsy, hysteria, skin diseases, throat trouble, lumbago, ulcers, rheumatism, paralysis, cough, diuretic, snake-bite
316	Ocimum sanctum	Lamiaceae	LF	Malaria, cough, cold, coryza

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317	Oroxylum indicum	Bignoniaceae	LF, RT, SD	Snake-bite, urinary disorders, epilepsy, indigestion
318	Oxalis corniculata	Oxalidaceae	LF	Cuts, wounds, swelling, insect stings, snake-bite, scorpion sting, appetite, corns, dysentery, fever, jaundice, rickets, stomachache
319	Paeonia emodi	Paeoniaceae	RT, LF, ST	Dyspepsia, dysentery, diarrhoea, fever, blood purifier, cuts, ulcers, wounds, colic, convulsions, dropsy, epilepsy, hysteria, mental diseases, rheumatism, urinary troubles
320	Parnassia nubicola	Saxifragaceae	TU	Snake-bite, wounds, boils, remedy for poisonous food, Eye diseases
321	Pinus roxburghii	Pinaceae	RE	Swelling, sprains, boils, bone fractures, urine trouble, concussions, heel cracks, eye, bone fracture
322	Pinus wallichiana	Pinaceae	RE, BK, LF	Hurt, bone fracture, headache, waist pains, internal injury, heel crack, skin diseases abscess, ulcers
323	Pleurospermum angelicoides	Apiaceae	WP	Ascariasis, fever, dyspepsia, dysentery, gastric trouble, stomachache, body-ache
324	Polygonatum vetricillatum	Liliaceae	RT, TU	Piles, bone fracture, fever, appetite, aphrodisiac
325	Prunus persica	Rosaceae	SD, ST, FR, LF	Eczema, tooth diseases, wounds, antiseptic, eczema, headache, scabies
326	Rheum emodi	Polygonaceae	RT	Wounds, cuts, inflammation, piles, swelling, sprains, jaundice, stomach trouble, muscular pain
327	Rhododendron arboreum	Ericaceae	FL	Mental retardation, dysentery, headache, eye cataract, wounds, rheumatism
328	Saussurea obvallata	Asteraceae	RT	Leucoderma, cuts, bruises, urinary trouble, hurt, bone fracture, wounds, burns

329	Taxus baccata	Taxaceae	LF	Asthma, bronchitis, lumbago, indigestion, cancer
330	Zanthoxylum armatum	Rutaceae	ST, BK, FR, SD	As anesthetic, pyorrhoea, cough, cold, fever, toothache, abdominal trouble, leucoderma, eye, ear trouble

Abbreviation used in text: LF-Leaf, RT-Root, SD-Seed, FR-Fruit, LT-Latex, ST-Stem, TU-Tuber, WP-Whole Plants, BK-Bark, RE-Resin, BB-Bulb, RH-Rhizome, ST-Stipe, CL-Clove, PU-Pulp, KE-Kernel, SP-Spores, AP-Arial Part, INF-Inflorescence, FL-Flower, BU-Bud, OL-Oil, GU-Gum, NT-Nut.

Conclusion

Himalayan people have close relationship with nature. They believe that diseases are caused by unhappiness of gods and nature. Thus HMS is specially conditioned by cultural heritage and myths. Generally the Himalayan's are believe that diseases are caused by the supernatural powers and they treat them through natural products like plants, herbs, trees, soils, etc. Himalayan medicine system is totally non-systematized. The person, prescribing these medicines has no so-called scientific knowledge about the disease. For example, suppose they use a mixture of different leaves in their treatment, but they don't know which specific leaves have the disease fighting properties. HMS has very old roots; in ancient time these Himalayan medicinal plants were not only traded internally but also exported. For example, Kuth (*Saussurea costus*) was exported to east as it is mentioned in *Atharvaveda*. It was also exported to China. Thus HMS is an interesting medicine system and it needs more study. It is intimately connected with Ayurveda and may also be related to the Chinese medicine system.

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