Indigenous medicinal plants knowledge of Kunihar forest division, district Solan

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Kunihar forest division falling under district Solan boasts of rich plant diversity. The study was undertaken for making preliminary survey of the indigenous technological knowledge on the uses of medicinal plants of Kunihar forest division, district Solan, Himachal Pradesh. Important medicinal and aromatic plants with their vernacular names, family and indigenous uses have been presented.

Keywords: Kunihar forest, Ethnomedicine, Indigenous Technical Knowledge, Medicinal plants, Himachal Pradesh


Plants and plant products have augmented human culture since time immemorial and are an important part of our environment. The ancient Indians were acquainted with larger number of plants. Himachal Pradesh, a hilly state situated in the Northwest Himalayas, boasts of a wide diversity of plant forms of European, Tibetan and Chinese origin in its subtropical, temperate, alpine and cold desert regions. The conservation of diversity in plant-based ecosystems has special significance in mountains, as people are traditionally bound with the natural resources for multifaceted uses such as food, fodder, medicine, etc. Ethnobotanical studies provide helpful clues to crop domestication and folk selection for better use of resources to meet local needs and a lot of work on the traditional medicinal uses has already been reported. Indigenous knowledge based organizations still serve as a forum for identifying problems, dealing with them through local level experimentation and exchange of information with other societies. However, indigenous not only stand for ingrained intrinsic knowledge, but it is also amenable to modification based on latest technical know how by local in habitat through native means to suit their daily requirements.

Geographically, Kunihar forest division is situated between 39°52' to 31°22' longitudes and 76°36' to 77°09' latitudes. This area constitutes a part of Solan district of Himachal Pradesh bounded by Nalagarh division towards Southwest, Solan towards Southeast, Shimla towards Northeast and Bilaspur towards Northwest. The elevation generally varies from 300-2,200 m above mean sea level. This covers an area of 572.37 sq km. Kunihar forest division has four ranges viz. Kunihar, Arki, Darlaghat and Kutharh with head quarters at respective areas. The dialect of the area is called Pahari Boli. People have great faith in Gods & deities and celebrate many festivals and fairs. Vegetation of the area is mainly dominated by broad-leaved mixed vegetation. Acacia catechu, Albizia chinensis, Anogeissus latifolia, Cassia fistula, Pinus roxburghi, Terminalia bellirica, Terminalia chebula, Toona ciliata, Pistacea integerrima are main tree species. Shrubby elements constitute chiefly Punica granatum, Berberis lycium, tecoma stans, Randia tetrasperma, Flacourtia indica, etc. Bauhinia vahlii, woody climber is quite conspicuous in ravines and slopes. Other climbers include Smilax aspera, Rosa moschata, Cryptolepis buchanani, Celastrus paniculata, Jasminum arborescens J. dispernum, J. humile, Melittia auricaulis, etc Herbaceous element is constituted by mixture of grass like species of Phragmites, Paspalum Dicanthium, Heteropogon, Bothriochloa, Chrysopogon, Chloris, etc and species of Cassia, Rynchosia, Lathyrus, Bidens, Achyranthes, Solanum and various weeds of agriculture fields like Cynodon dactylon, Cyperus rotundus, Malvastrum coromandelianum, etc.

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Methodology
Extensive field survey of entire area was carried out during the year 1999-2001. The collection of voucher specimens was done during flowering/fruiting period to facilitate the process of identification. Identification of plant species was done by consulting various floras and comparison in the Herbarium of the Department of Forest Products, Dr YS Parmar University of Horticulture and Forestry, Nauni-Solan. Inventory of the entire floristic elements was prepared. Traditional medicinal uses of plants containing local names of plants, parts used and mode of administration recorded through interviews and discussion with elderly people, herbal healers, local Vaid, and rural women have been enumerated.

Enumeration
Agave Americana Linn.; (Agavaceae), Ramban
Uses: Leaves are dipped in water for 1-2 days. Thereafter, fibres are extracted and used to make ropes. Leaves are used to increase the menstrual discharge in ladies. Young shoots are used as vegetable and are also pickled. The pickle is considered Niroga (keeping far from diseases).

Androsace rotundifolia Hardw.; (Primulaceae), Nirodhak buti, Golpatti phool
Uses: Leaves are eaten with gur and pure ghee for correcting menstrual flow, and helping avoiding conception.

Asparagus adscendens Roxb.; (Liliaceae), Sansarmuli, Safed Muli
Uses: Roots are used as tonic, demulcent and in dysentery. Fruits are used to wash the clothes. The plant is worshipped and used in shanti pujans. In case of tonsils, its root is tied around neck. In headache, root paste is applied on forehead.

Bauhinia vahlii Wight & Arn.; (Leguminosae), Taur, Maljhan
Uses: Root juice with curd is used in dysentery. Leaves are used to make doonas (plates). Roasted seeds are eaten as tonic. Root decoction is taken thrice a day for 4 days as a cure for fever. Leaves are also used to make Jhums (item which is used to protect from rain).

Bauhinia variegate Linn.; (Leguminosae), Karyalo, Kachna.
Uses: Bark decoction is given for 15 days (twice a day) in tuberculosis. The flower powder is used for haemorrhage; bark decoction is used as blood purifier. Flower buds are used to make Raita and are also pickled or cooked as vegetable. Leaf decoction is used in headache caused by malarial fever.

Blumea wightiana DC.; (Compositae, Jangli-Tambaku
Uses: Root decoction is taken twice a day for 5 days in urinary problems; leaf decoction is given in stomachache. Oil is extracted from seeds.

Bombax ceiba Linn.; (Bombacaceae), Simal, Semal
Uses: Thorn paste in cow milk is applied on pimples. Root paste is taken with unboiled cow milk to regulate the menstruation and with black pepper it is used to control the white discharge (leucorrhoea). Cotton is used in pillow and mattresses stuffing.

Cassia fistula Linn.; (Leguminosae), Amaltas
Uses: Fruit pulp is used as laxative. Pods bark paste with kesar (Crocus sativus Linn.), mishri and rose water is given for easy and painless delivery. Leaf paste is applied on ringworm. Ash of the pod is given with honey in cough to the children. Stem bark decoction is used to wash the wounds healing.

Cheilanthes farinosa Kaulf.; (Sinopteridaceae), Hansraj
Uses: Leaf decoction is used in fever. Plant juice mixed with honey is given after meal to persons suffering from tuberculosis.

Clematis gouriana Roxb.; (Ranunculaceae), Belkum
Uses: Root decoction is given thrice a day for three days in stomachache.

Colebrookia oppositifolia Smith.; (Labiatae), Dushno, Pansra, Binda
Uses: Leaves are chewed in case of mouth ulcers; Leaf paste is also applied on wounds and bruises.

Cuscuta reflexa Roxb.; (Convolvulaceae), Akash bel
Uses: Plant juice with Munnaka is taken to remove the worms in intestine. It also controls the heartbeat in weakness. Plant juice is also applied on hair to increase the length.

Cynodon dactylon Pers.; (Graminae), Doob
Uses: Plant juice is put in nose to check the bleeding and to reduce the acidity and constipation. The plant is also used in Puja (worships).

Debregeasia hypoleuca Wedd.; (Urticaceae), Siaru
Uses: Paste of plant leaves and Aswagandha (Withania somnifera Dunal) leaves is given with gur and black pepper for paat (fever in cattle). Fruits are edible.
Delphinium denudatum Wall.; (Ranunculaceae), Nirbisi

Uses: Root is used in toothache; root decoction is used as tonic after fever. Powdered root is massaged on head to kill lice and to increase length of hair.

Echinops nivens Wall.; (Compositae), Oontkatara

Uses: Powdered roots are used on wounds in cattle. Root bark powder mixed with honey is taken to cure cough and asthma.

Euphorbia royleana Boiss.; (Euphorbiaceae), Chhuro

Uses: Latex is applied as Gul on the painful parts. Care should be taken that water should not touch on that part and milk should be kept away from the eyes. Stem pulp is used as Raita. Latex is filled in the hollow cavities of decayed teeth.

Ficus glomerata Roxb.; (Urticaceae), Umbro

Uses: Juice of roots, sugar and black zeera is given to treat Sujak Rog (gonorrhoea). Juice of green and dried fruits mixed with mishri is given in piles and diarrhoea.

Grewia optiva Drume ex. Burrett.; (Tiliaceae), Biul

Uses: Leaves are used as fodder. Stems are dipped in water for few days and then fibre is extracted, which is used to make the ropes. Ladies to clean their hair use stem bark. Fruits are edible.

Ichnocarpus fragrans Wall.; (Apocynaceae), Dudhi bel

Uses: Root decoction is given with black pepper paste as a blood purifier.

Jasminum arborescens Roxb.; (Oleaceae), Chameli

Uses: Leaf juice with black pepper and garlic acts as an emetic and also used in obstructions of the bronchial tubes.

Jatropha curcas Linn.; (Euphorbiaceae), Safed arand

Uses: Latex is used for eczema. Young twigs paste with black pepper is given twice a day for the treatment of white discharge.

Leucas lanata Benth.; (Liabiatae), Kathi-buti

Uses: Flowers are used in cold and cough. Dried and powdered leaves are taken with cold water or milk in dysentery.

Mallotus philippinensis (Lamk.) Muell-Arg.; (Euphorbiaceae), Kamal, Kamela

Uses: Shade dried seed powder made into small tablets is given with cold water in jaundice. Leaf decoction is given in Vat Rog (rheumatism). In Polio (myelitis), small and thin roots are tied on the neck. Bark and leaf powder mixed with butter is applied on sores and boils.

Meriandra strobilifera Bent.; (Liabiatae), Murta, Murti

Uses: Leaf decoction is used on the wounds and skin abrasions. Leaves are spread under the cattle to get rid of fleas.

Nerium indicum Mill.; (Apocynaceae), Lal kaner

Uses: Leaves are used in Hriday rog (cardiac disorder). Leaves are also used in snakebite. Leaves cooked in mustard oil are rubbed on body in allergy. Snuff of dry leaves is used for relieving headache.

Opuntia dillenii Haw.; (Cactaceae), Nagphani

Uses: Fruit juice (sharbat) is used in asthma. Fruit decoction with ginger is given in whooping cough to children.

Oxalis corniculata Linn.; (Geraniaceae), Khatti-mithi, Changeri, Malori

Uses: Plant juice with salt is used in dysentery. Leaf juice is useful in cataract. Its vegetable is given for 1 or 2 weeks for curing madness and side-by-side banfsa (Viola serpens) mixed in pure ghee is applied on head.

Plectranthus incana Link.; (Liabiatae), Chhichhdi

Uses: Crushed leaves are applied on wounds and cuts. Leaves are applied for curing septic between toes.

Premna latifolia Roxb.; (Verbenaceae), Bakar

Uses: Leaves are used in curries. Leaf decoction with long pepper paste is used in indigestion. Bath is taken in leaf decoction in case of body allergy.

Reinwardtia indica Dum.; (Linaceae), Basanti

Uses: Stem paste is applied on wounds infected with maggots in cattle. Leaves are used in the treatment of paralysis.

Ricinus communis Linn.; (Euphorbiaceae), Arand

Uses: Leaves are heated and tied over aching joints and swelling; also useful in backache. In stomach swelling (Afara) in children, leaves with warm ghee are tied on belly. In stomachache, arand wood ash is taken with cold water. Leaf juice mixed in mustard oil is used on burns. Seed oil is used in constipation. Root paste is taken in the morning for three days for abortion.
Scindapsus officinalis (Roxb.) Schott.; (Araceae), Gathiya

Uses: The Halwa made from the plant is used in gout. Leaves are used in Bsoun for cattle. Fruit decoction is given as expectorant in asthma.

Terminalia chebula Retz.; (Combretaceae), Hard

Uses: The fruits are used in dyspepsia (Ajiran). Triphla (Terminalia chebula Retz, Terminalia bellerica Roxb. and Emblica officinalis Gaertn.) powder is soaked in water overnight in an earthen pot and eyes are washed with this water in the morning. It cures eye problems and if drank with common salt, it cures cough and phlegm. In constipation, decoction of Harad powder, Sendha namak (black salt) and dried ginger is administered. To reduce excess sweating, harad powder is massaged over body.

Vitex negundo Linn.; (Verbenaceae), Bana

Uses: Leaves are smoked in headache. Flowering tips are chewed for curing ulcers. Twigs are used as datun (toothbrush). Leaves are used in gastric problems and leprosy. Paste of leaves of the plant and chuli (Albizia chinensis) are used for treating snake and scorpion bites. Leaves mixed with cow dung are massaged during backache. Leaf paste of Vitex negundo, Loranthus and Cuscuta is applied for curing wounds on shoulders of bullocks.

Zyziphus xylopyrus Willd.; (Rhamnaceae), Jangli ber, Chulna

Uses: Stem bark decoction with long pepper (Piper longum) and ginger paste is used in the treatment of hysteria. Fruits are edible. Leaf paste is applied on forehead in headache. Leaves are chewed thrice a day for 15 days in urinary trouble.

Conclusion

The practice of indigenous technological knowledge is still a matter of cultural heritage of the area. People are making maximum use of the plant species for meeting their day-to-day household demands. The indigenous traditional knowledge about use of plants against diseases like rheumatism, cardiac disorders, headache, diarrhoea, dysentery, stomach- ache, fever, etc. is still practiced in majority of households. However, scientific validation through biochemical, clinical and pharmacological screening are required for verification of the folklore and bring out newer and potential sources of medicament for the welfare of the society.

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