

# Medicinal Plant Management and Trade in India: Policy and Regulatory Framework

The wild harvest, cultivation, and trade of medicinal plants is presently governed under various legal and administrative provisions, many of which vary from state to state. It results in adding further complexity to the already complex sector and causes avoidable delays during transit of herbal raw drugs from one state to another. Similarly, the conservation and research in medicinal plants is also suffering from want of a comprehensive national level policy/ strategy resulting in different states and organizations following different protocols for conservation. There is, thus, an urgent need to have a comprehensive national policy/ strategy to address various issues pertaining to the sector. The chapter highlights the various provisions related to wild harvest, cultivation and trade and makes a case for adoption of a national policy/ strategy on medicinal plants.

### 10.1. Introduction

A large diversity of herbal raw drugs obtained from nearly 1200 medicinal plant species are in commercial use for production of health care formulations under Indian Systems of Medicine in the country. These diverse herbal raw drugs are collected from the wild, cultivated, or imported and transported through a labyrinth of trade channels to various parts of the country for use by domestic herbal industry, processing for export, or retail sale. The production including cultivation and import, trade, consumption and exports of the medicinal plants, usually covered as a sub-set of Non Timber Forest Produce (NTFP), is subject to various policy and regulatory regimes put in place by the national or the state governments. An overview of these policy and regulatory regimes applicable to the medicinal plant sector in the country is given below.

### 10.2. Management and Harvest of Wild Medicinal Plants

Results of this study reveal that nearly 90% of the medicinal plants used by the rural communities and the folk healers/ traditional practitioners – both by species and quantities consumed – are sourced from the wild. In respect of consumption of herbal raw drugs by the domestic herbal industry, 72% of the medicinal plant species and 50% of the annual quantities consumed are also sourced from the wild. The study also reveals that the herbal sector in the country has grown at a rate of about 10% over the past decade and that it is projected to grow further. An increase in cultivation of medicinal plant species over the past decade has also been recorded. However, number of wild collected species of conservation concern taken up for successful cultivation is far too low to make any significant ameliorative impact on wild collections. With nearly 50% of the wild collections being of destructive nature i.e. where roots/ rhizomes/ bulbs, whole plants, bark, wood, etc. is harvested, the pressure on the wild medicinal plant resources is also increasing. Wild populations of many key Indian medicinal plant species are reported to have declined due to over-collection to supply domestic and foreign medicinal markets (TRAFFIC India, 1998). 344 medicinal plant species have already been assessed to be facing different categories of threat to their very existence (FRLHT database).

The forests form the single major source of wild harvests. Different states in the country have different policies and guidelines for management and harvest of medicinal plants. In most of the States, however, a 3-4 year rotation is prescribed under the Forest Working Plans for wild harvest from a forest area in respect of the species that involve destructive harvests to facilitate regeneration and recouping of wild populations. In case of species like Tamarind, Mahua, Sal, Amla, etc. where the produce is in the form of fruits or flowers, annual wild harvesting is permitted. State Forest Departments, as custodians of forest land, have been collating and maintaining information in respect of wild harvest of all forest produce, including medicinal plants, on annual basis and incorporating the same in their Annual Administration Reports.

Harvesting of self grown medicinal plants from landscapes outside forests including agriculture fields, fallow lands, road sides, water bodies, waste lands, etc., forming another important supply source of botanical raw drugs is, however, goes on without any regulatory mechanism. Thus, no record of harvest from such areas is maintained by any agency.

In addition to the harvesting regulations prescribed under the Forest Working Plans, the wild harvest and mechanism of wild harvest is also subject to regulations under the following legislations:



The Indian Forest Act, 1927: This federal Act empowers the government to notify 'forests' and vests the government with the authority on forest produce of such notified forests. Nearly 24% of the country's geographical area is notified as forest and is under the administrative control of forest departments of different States. Most medicinal plants are covered under sub-section 2(4)(b) of the Act, and are not subject to regulations unless extracted from the forests. However, some items such as kuth, myrobalans, bark and wood-oil from certain trees are covered under sub-section 2(4)(a) of the Act; and subsequent State amendments to the Act have added several medicinal species to this sub-section subjecting these species to regulations regardless of origin. The Act also empowers the government to regulate through appropriate Rules the harvesting of trees notified as 'reserved' or collection of other NTFPs.

The Act, as part of settlement of rights at the time of constitution of forests into 'reserve' or 'protected', admits some rights of local communities to make wild collection of forest produce for self use and/ or barter, except in case of species that are 'reserved', 'nationalised' or prohibited for collection under other Acts. Wild collection, however, is formalised and regulated in different ways in different States. In some States like Himachal Pradesh, the local wild gatherers get registered with the local forest department and get permits to make wild collections in the given time frame only. In some other States like Uttarakhand, the local Van Panchayats have been entrusted with the responsibility of wild harvests through local communities. In Madhya Pradesh and Chhatisgarh, local communities can make free wild harvest of medicinal plants. However, in case of 'nationalised' species, the collection is through JFMCs. In States like Karnataka, the wild collection in respect of 'nationalised' species is done through auction of forest blocks.

**The Wildlife (Protection) Act, 1972:** This federal Act, while making no specific mention of medicinal plants, protects 'specified' plants species, as enlisted in Schedule-VI of the Act, prohibits picking, uprooting, etc. of such listed plants growing in the wild. Specific provisions related to 'protection of specified plants' have been made in Sections 17A to 17H (Chapter IIIA) of the Act, of which those related to wild harvest, and trade are as follows:

**Section 17A:** Prohibition of picking, uprooting etc. of specified plants. Save as otherwise provided in this chapter, no person shall -

- a) Willfully pick, uproot, damage, destroy, acquire or collect any specified plant from forest land and area specified by notification by the central government.
- b) Possess, sell, offer for sale, or transfer by way of gift or otherwise, or transport any specified plant, whether alive or dead, or part of derivative thereof.

**Section 17D:** Dealing in specified plants without license prohibited.

- (1) No person shall, except under and in accordance with a license granted by the chief wild life warden or any other officer authorized by state government in this behalf, commence or carry on business or occupation as a dealer in a specified plant or part or derivative thereof.

In as far as medicinal plants are concerned, one very important Himalayan medicinal plant species i.e. Kuth (*Saussurea costus*) is enlisted in the Schedule-VI of the Act. Many State governments have enlisted more number of state-specific species of conservation concern under Schedule-VI of the Act.

**The Biological Diversity Act, 2002:** This federal Act envisages achieving three main objectives, i.e. (a) conservation of biodiversity; (b) sustainable use of biological resources; and (c) equity in

sharing benefits from such use of resources. Section 38 of the Act provides for notifying species of conservation concern and prohibiting their wild collection and trade. Currently 118 plant species have been notified under this section across the country via State-wise notifications in respect of 17 states.

**Biological Diversity Rules, 2004:** These Rules outline the procedures to be followed for access to biological resources (wild plants and animals, crops, medicinal plants, etc), their commercial utilization, transfer of rights of research, and intellectual property rights related to biodiversity. At the local level the Act provides for the constitution of Biodiversity Management Committee (BMC) for the purpose of promoting conservation including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms. As per Sec 41(1) of the Rules “every local body shall constitute a Biodiversity Management Committee within its area for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge relating to biological diversity”.

'Local bodies' means 'Panchayats' and 'Municipalities' and in the absence of any Panchayats or Municipalities, 'institutions of self-government' constituted under any other provision of the Constitution or any Central Act or State Act. Though the Section 41 (v) of the rules envisages a broad role of the BMC, the main function of the BMC is to prepare People's Biodiversity Register (PBR) in consultation with local people. The Register is to contain comprehensive information on availability and knowledge of local biological resources, their medicinal or any other use or any other traditional knowledge associated with them.

**Panchayat (Extension to Scheduled Areas) Act, 1996 (PESA):** This Act extends the provisions of the 73rd Constitutional Amendment 1993 to the Schedule V Areas of the country, and accords statutory status to the Gram Sabhas in Schedule V areas and recognises the prevailing traditional practices and customary laws. State governments are required to pass suitable legislations to make the provisions of other policies and programmes consistent with PESA. It provides for the management and control of all the natural resources in the hands of people living in the Schedule Areas. The Act creates scope for community based conservation measures, and intends to hand over the ownership rights over Minor Forest Produce (MFP) to local Gram Sabhas and recognizes the indigenous systems and local best practices. Under the Act the Gram Sabha is empowered to sanction/ or dismiss lease agreements and development projects (such as mining, sand quarrying etc.) and has the powers to articulate measures to prevent land alienation. Some of its key provisions spell out the extent to which the Gram Sabha can exercise control over community resources and MFPs.

Some states, like Himachal Pradesh, have devolved powers to manage MFPs to Panchayats through notifications. However 'MFP' per se remains undefined under the Act, leaving States to develop their own lists of entities as MFPs. Implementation of the provisions of this Act in as far as MFPs are concerned is rather limited due to weak enabling environment. The Act is wished to be implemented with a mere notification based on a make-belief that communities have adequate knowledge and resources to manage MFPs. Thus, implementation of the Act does not have any program to build capacity of the Panchayats in effective implementation of the MFP conservation protocols and management of database of wild harvests.

**Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, (FRA):** The FRA recognizes and vests secure community tenure on 'community forest resources', which are defined as common forest land within the traditional or customary boundaries of the village or seasonal use of landscape in case of pastoral communities, including reserved forests, protected forests and protected areas such as sanctuaries and national parks to which the community had traditional access. The FRA provides for restitution of traditional forest rights to forest dwellers across India, including individual rights to cultivated land in forested landscapes and collective rights to control, manage and use forests and its resources as common property. The salient provisions related to community rights, listed in Chapter 2 of the Act, cover the following rights over all forest lands that forest-dwelling scheduled tribes (ST) and other traditional forest dwellers are entitled to.

#### Relevant Sections of the FRA

Section 2 (i) defines MFPs to include all non-timber forest produce of plant origin, including bamboo, brushwood, stumps, cane, tussar, cocoons, honey, wax, lac, tendu or kendu leaves, medicinal plants and herbs, roots, tubers and the like.

Sub-Section 1 (b) of Section 3 provides for community rights such as usufruct (nistar), and confers the right of ownership and access to collect, use and dispose of MFPs traditionally collected within or outside the village boundary.

Sub-Section 1 (c) of Section 3, further clarified under Rule 2 (d) covers local-level processing, value addition and transportation of MFPs in forest areas by head-loads, bicycle and handcarts for use or sale by the gatherer or community for their livelihood. The use of motor vehicles is regulated by existing transit rules.

Sub-Section 1 (d) of Section 3 covers other community rights for use or entitlements, such as fish and other products of water bodies, grazing (both settled and transhuman) and access to traditional seasonal resources by nomadic or pastoral communities.

Sub-Section 1 (g) of Section 3 covers rights to convert pattas, leases or grants of forest lands issued by a local authority or state government into titles.

Sub-Section 1 (i) of Section 3 covers the right to protect, regenerate, conserve or manage any community forest resource that forest dwellers have been traditionally protecting and conserving for sustainable use.

Sub-Section 1 (k) of Section 3 covers the right of access to biodiversity and community rights to intellectual property and traditional knowledge related to biodiversity and cultural diversity.

Sub-Section 1 (l) of Section 3 covers any other traditional rights customarily enjoyed by STs or other traditional forest dwellers that are not mentioned in the earlier clauses, excluding the traditional right to hunt, trap or extract a part of the body of any species of wild animal.

**Issues:** Field visits and discussions with stakeholders about the efficacy of implementation of the legislative provisions in respect of wild harvest of medicinal plants bring out the following issues:

- Implementation of Working Plan Prescriptions: Working plan prescriptions about rotational harvest from the forests are far from fully implemented due to staff constraints in many States, resulting in clandestine removals from even areas that are officially closed for harvesting during a particular year. The wild populations of many species viz. *Paris polyphylla*, *Trillidium govianum*, and *Fritillaria roylei* have succumbed to this high annual harvesting pressure pushing these species towards possible extinction.
- Restrictions under Schedule-VI of Wildlife (Protection) Act, 1972 and Biological Diversity Act, 2002: The federal Act has listed Kuth (*Saussurea costus*) under this schedule. With wild populations of Kuth limited to small pocket in Kashmir valley, the major Kuth supplies in trade come from cultivation in Lahaul valley in Himachal Pradesh with some supplies coming from Uttarakhand. However, its extent of cultivation is getting reduced every year due to complex and long drawn formalities required for trade of the cultivated material. The regulatory regime under the Act needs review to facilitate cultivation of such species of conservation concern. A similar action to review Section 38 of the Biological Diversity Act, 2002 is also required, so that species of conservation concern can be brought under 'Action List' from the present passive 'Negative List'.
- Data Gap in Respect of Wild Harvest: Consequent upon the implementation of PESA and FRA, powers to manage MFPs have been devolved to the Panchayats and the traditional forest dwellers. Guidelines and protocols of maintaining database of wild harvests by Panchayats and traditional forest dwellers under this new arrangement and its state level compilation are, however, yet to be developed and institutionalized. With the State Forest Departments no gathering and collating the same, there is a huge data gap in respect of the wild harvest of medicinal plants from forests. Appropriate provisions to bridge this gap are urgently needed to be put in place.

### 10.3. Cultivation of Medicinal Plants

Cultivated medicinal plants make significant contribution towards supplies of many herbal raw drugs. The supply source of some of the medicinal plants like Isabgol, Tulasi, Senna, Mentha, etc. is only cultivation and their cultivation has been well integrated into local agricultural practices. The produce in respect of such species is treated as normally traded commodity under section 40 of the Biological Diversity Act, 2002. As such cultivation of all such species that are not found in the wild in India is free from any forest and biodiversity related regulations and can be freely practiced to fulfill market needs.

Many other medicinal plant species like Amla, Bach, Basuti, Musli, Kuth, Ashvagandha, Shatavari, etc. are found in the wild but are also cultivated. The market demand of such species is met from both the wild collections as well as from cultivation. It is the cultivation of such species that are also found in the wild that attracts regulations under forest and biodiversity Acts.

Cultivation of specified species enlisted in Schedule-VI of the Wildlife (Protection) Act, 1972, viz. 'Kuth' is regulated in accordance with Section 17C (Chapter IIIA) of the Act:

**Section 17C:** Cultivation of specified plants without license prohibited.

- (1) No person shall cultivate a specified plant except under and in accordance with a license granted by chief wild life warden or any other officer authorized by state government in this behalf.
- (2) Every licence granted under this section shall specify the area in which and the conditions, if any, subject to which the licensee shall cultivate a specified plant.

Some States, like Himachal Pradesh, have notified their own lists of medicinal plants and made it mandatory for the farmers to get registered with the Forest Department before taking up their cultivation. Many State governments like Madhya Pradesh have, however, exempted cultivation of medicinal plant species from under the purview of any such regulatory mechanisms to enable farmers to practice their cultivation freely. The notification of some species of conservation concern under Section 38 of the Biological Diversity Act, 2002, however, brings such notified species under strict trade regulations, putting a dampener on their cultivation.

#### **10.4. Transportation and Trade of Medicinal Plants**

The herbal raw drugs harvested from wild resources or from cultivation are required to be transported from production sites to the trade and eventual consumption centres including exports. Such transportation and trade is governed under various regulations and international conventions.

Forest Produce Transit Rules: Export of wild collected medicinal plants, and the native cultivated medicinal plants, is regulated under the Forest Produce Transit Rules made under the Indian Forest Act, 1927. These Rules prescribe procedure for storage and export of herbal raw drugs from the production site, and each consignment of herbal raw drug should be transported under an Export Permit issued by the authorized officer on deposit of some notional Export Permit Fee. The State of Himachal Pradesh has put in practice dual system of issuance of Export Permit. Whereas, the authority to issue Export Permit in respect of common listed species has been devolved to the Panchayat Pradhans, the authority to issue Export Permits in respect of medicinal plant species of conservation concern lies with the Divisional Forest Officer. The government of Madhya Pradesh has done away with the system of Export Permits except in case of transport of 'notified' species. In most of the other States, the Divisional Forest Officers continue to issue Export Permits.

Transit Rules also provide authority to the government to prohibit the export of forest produce obtained from a species considered to be of conservation concern. It has resulted in different States notifying different species for trade prohibition. For example, the trade of *Taxus wallichiana* is prohibited in Himachal Pradesh, whereas it is allowed in Uttarakhand. Similarly, the trade of 'Kuth' is prohibited in Jammu & Kashmir where the species is found in the wild. However, 'Kuth' is extensively cultivated in Lahaul (Himachal Pradesh) and its trade is allowed under provisions of Wildlife (Protection) Act, 1972. This type of non-uniformity in the Transit Rules, especially in neighbouring States, results in clandestine removals and trade on one hand and avoidable delays at State borders during inter-state transportation of the material on the other. There is an urgent need to harmonise these Rules to facilitate smooth movement of herbal raw drugs across various states in the country.

<b>Indian Forest Act 1927 and State Transit rules Provisions of Transit rules for movement of medicinal plants for some States</b>	
<b>State Rules</b>	<b>Regulatory provisions</b>
The West Bengal Forest Produce Transit Rules, 1955	Permit required for movement of produce within area specified.
	Certificate of origin required for Forest produce from depot, private lands and khas mahal forests in area specified.
	Species: Chirata, Manjistha, Cinnamon, Piper longum, Rauvolfia serpentina
Maharashtra Forest Rules 2014	Transit Pass required for movement of forest produce into or from or within any district
	No Transit pass required for transport of forest produce within the limits of village/town
	Species regulated : Rosh grass including oil, Rauvolfia serpentine
The Rajasthan Forest Produce (Transit) Rules, 1957	No forest produce shall be moved into or from or within any area in the State without a pass issued by a Forest Officer or person duly authorized and in accordance with the conditions of such pass, including route and destination specified.
	No pass shall be required for the removal of any forest produce which has been extracted from the forest for consumption
Kerala Forest Produce Transit Rules, 1975	Transit pass required for any movement of the forest produce
	Separate passes for forest produce from Government land and private land
	In case trader/purchaser also wishes to export from India, clearance order required from DFO
The Orissa Timber and other Forest Produce Transit Rules, 1980	No transit permit shall be required to cover transit of forest produce for transport of minor forest produce within the district except lac, tassar, Myrabolans, gums and resin, Sal seed, Tamarind, Gums, roots of Patal garuda, Sandalwood
	All forest produce in transit by land, rail or water shall be covered by a "Transit Permit" issued free of cost by the DFO or by the ACF
The HP Forest Produce Transit (Land Route) Rules, 2013	Regulate the movement of forest produce by land routes into from and within the territories of HP.
	Schedule I of the rules provides the list of plant species growing on private land to be exempt from transit pass. Certification of cultivation required for their movement
	Schedule II of the rules provides a list of species which attract permit/pass for movement. Private cultivators of these species to be registered with concerned DFO.
The Arunachal Pradesh Forest Act, 2014	Prohibits the import, export, collection or moving of forest produce without a pass
	Prescribes the routes by which alone forest produce may be



	imported into, exported from or moved within the territories
Andaman and Nicobar Island Forest Produce Transit Rules, 1966	Requirement of a transit pass applies to any movement of forest produce from any source TP issued by Forest department on payment of a specific fee.

**Trade of Plants listed in CITES Appendices:** India as a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has put in place provisions related to export of plants, plant portion and their derivatives and extracts obtained from the wild. CITES is implemented in India through a combination of the Wildlife (Protection) Act, 1972 and the Export and Import Policy (EXIM) of the Foreign Trade (Development and Regulation) Act, 1992 and the Customs Act, 1962. The Wildlife (Protection) Act prohibits wild harvest of and regulates export of all six CITES Appendix-I plant species native to India, of which one, 'Kuth' (*Saussurea costus*), is an important medicinal plant. The regulations prescribed for export of species enlisted in CITES Appendix-I are given below.

**Trade in CITES Appendix-I Species**

**Export of Appendix-I Specimens (Article III.2):**

The export of any specimen of a species included in Appendix-I shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

- (a) Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;
- (b) Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora;
- (c) Management Authority of the State is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and
- (d) Management Authority of the State of export is satisfied that an import permit has been granted for the specimen

**Import of Appendix-I Specimens (Article III.3):**

The import of any specimen of a species included in Appendix-I shall require the prior grant and presentation of an import permit and either an export permit or a re-export certificate. An import permit shall only be granted when the following conditions have been met:

- (a) Scientific Authority of the State of import has advised that the import will be for purposes which are not detrimental to the survival of the species involved;
- (b) Scientific Authority of the State of import is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and
- (c) Management Authority of the State of import is satisfied that the specimen is not to be used for primarily commercial purposes.

**Re-export of Appendix-I Specimens (Article III.4):** The re-export of any specimen of a species included in Appendix I shall require the prior grant and presentation of a re-export certificate. A re-export certificate shall only be granted when the following conditions have been met:

- (a) Management Authority of the State of re-export is satisfied that the specimen was imported into that State in accordance with the provisions of the present Convention;
- (b) Management Authority of the State of re-export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and
- (c) Management Authority of the State of re-export is satisfied that an import permit has been granted for any living specimen.

In addition to the plant species listed in CITES Appendix-I, there is a long list of plants of conservation concern that have been enlisted under CITES Appendix-II. Foreign trade of these species is also regulated. The Ministry of Environment, Forest and Climate Change has notified the following list of 113 species of conservation concern vide its circular dated 04.10.2000, the export of which requires 'Certificate of Cultivation' or 'Legal Procurement Certificate' from the designated authorities of the Forest Departments.

1 <i>Aconitum</i> species	31 <i>Curcuma caesia</i>	61 <i>Hyoscyamus niger</i>
2 <i>Atropa</i> species	32 <i>Cayratia pedata</i>	62 <i>Inula racemosa</i>
3 <i>Aristolochia</i> species	33 <i>Coscinium eenestratum</i>	63 <i>Ilex khasiana</i>
4 <i>Angiopteris</i> species	34 <i>Cyclea fissicalyx</i>	64 <i>Iphignia indica</i>
5 <i>Arundinaria jaunsarensis</i>	35 <i>Decalepis hameltonii</i>	65 <i>Janakia arayalpathra</i>
6 <i>Acorus</i> species	36 <i>Diptreocarpus indicus</i>	66 <i>Kampferia galanga</i>
7 <i>Artemisia</i> species	37 <i>Dysoxylum malabaricum</i>	67 <i>Kingiodendron pinnatum</i>
8 <i>Aquilaria malaccensis</i>	38 <i>Drosera</i> species	68 Kuth ( <i>Saussurea lappa</i> )
9 <i>Angelica glauca</i>	39 <i>Didymocarpus pedicellata</i>	69 Ladies slipper orchid
10 <i>Arnebia benthamii</i>	40 <i>Dolomiaea pedicellata</i>	70 <i>Luvunga scandens</i>
11 <i>Adhatoda beddomei</i>	41 <i>Dioscorea deltoidea</i>	71 <i>Lamprachaenium microcephalum</i>
12 <i>Ampelocissus indica</i>	42 <i>Epedra</i> species	72 <i>Meconopsis aculeate</i>
13 <i>Berberis kashmirana</i>	43 <i>Euphorbia</i> species	73 <i>Madhuca diplostemon</i>
14 <i>Berberis petiolaris</i>	44 <i>Eulophia cullenii</i>	74 <i>Madhuca longifolia</i>
15 <i>Berberis lycium</i>	45 <i>Eulphia ramentacea</i>	75 <i>Meconopsis betonicifolia</i>
16 <i>Bunium persicum</i>	46 <i>Fritillaria roylei</i>	76 <i>Nardostachys</i> species
17 <i>Balanophora</i> species	47 <i>Frerea indica</i>	77 <i>Nervilia aragoana</i>
18 <i>Berberis aristata</i>	48 <i>Gynocardia odorata</i>	78 <i>Niligirianthus ciliatus</i>
19 <i>Beddomes cycad</i>	49 <i>Gentiana kurroo</i>	79 <i>Osmunda</i> species
20 <i>Blue vanda</i>	50 <i>Gloriosa superba</i>	80 <i>Orchidaceae</i> species
21 <i>Coscinium fenestratum</i>	51 <i>Gnetum</i> species	81 <i>Pterocarpus santalinus</i>
22 <i>Costus speciosus</i>	52 <i>Garcinia travancorica</i>	82 <i>Physochlaina praealta</i>
23 <i>Colchicum luteum</i>	53 <i>Gymnema khandalense</i>	83 <i>Praltia serpumlia</i>
24 <i>Commiphora whightii</i>	54 <i>Gymnema montanum</i>	84 Pitcher plant
25 <i>Coptis</i> species	55 <i>Hedychium coronarium</i>	85 <i>Podophyllum hexandrum</i>
26 <i>Ceropegia</i> species	56 <i>Hedychium spicatum</i>	86 <i>Prezalskia tangutica</i>
27 <i>Cyatheaceae</i> species	57 <i>Hellotrophium keralense</i>	87 <i>Panax pseudo ginseng</i>
28 <i>Cycadacea</i> species	58 <i>Humboldtia vahliana</i>	88 <i>Picrorhiza kurroa</i>
29 <i>Coptis teeta</i>	59 <i>Hydnocarpus alpina</i>	89 <i>Piper barberi</i>
30 <i>Craterostigma plantagineum</i>	60 <i>Hydnocarpus</i> species	

90 <i>Rheum nobile</i>	98 <i>Salacia oblonga</i>	106 <i>Taxus wallichiana</i>
91 <i>Rhododendron</i> species	99 <i>Salacia reticulata</i>	107 <i>Trichopus zeylanicus</i>
92 <i>Rheum emodi</i>	100 <i>Shorea tumbugaia</i>	108 <i>Trichosanthes anamalaiensis</i>
93 <i>Red vanda</i>	101 <i>Strychnos aenea</i>	109 <i>Utleria salicifolia</i>
94 <i>Rauwolfia serpentina</i>	102 <i>Swertia lawii</i>	110 <i>Urginea</i> species
95 <i>Saussurea gossyphora</i>	103 <i>Syzygium travancoricum</i>	111 <i>Valeriana iatamansi</i>
96 <i>Saussurea abvallata</i>	104 <i>Strychnos potatorum</i>	112 <i>Valeriaia leschenaultii</i>
97 <i>Saussurea simpsoniana</i>	105 <i>Swertia chirata</i>	113 <i>Vateria macrocarpa</i>

Trade in plants and plant portions of species listed in the Wildlife (Protection) Act, 1972 or in the in Appendix-I of the CITES or in the Export Licensing Note I is allowed if the produce is obtained from cultivation carried out in accordance with the rules. For such export, the exporter must have Certificate of Legal Possession issued by the jurisdictional DFO. For species listed under Schedule VI of the Wildlife (Protection) Act, 1972, the trader needs to comply with provisions under Section 17-A of the Wildlife (Protection) Act, 1972. For cultivation of CITES Appendix-I species, the nursery/ land where the plants acquired are maintained and multiplied/ cultivated is required to be registered with the Assistant Management Authority. The CITES Appendix-I and WPA Schedule-VI plants cultivated this way are eligible for export, subject to obtaining a transit pass from the concerned DFO if the plants were cultivated on sites within forests, or a Certificate of Cultivation from a District Agriculture, Horticulture or Forest Officer if cultivated at sites outside forests. Export Licensing Note 2 included in the schedule states that “...however, in respect of CITES species, a CITES permit of export shall be required”. In respect of the foreign trade in derivatives, extracts and formulations prepared out of plant species listed under WPA or CITES Appendix-I, the trade is free provided the 'formulations' mean and are limited to the “products which may contain portions/ extracts of plants on the prohibited list but only in unrecognizable and physically inseparable form” and “value-added formulations as well as herbal Ayurvedic” (Chapter 12, Export Licensing Note 3). The provisions further make it clear that “no certificate from any authorities whatsoever shall be required for their [formulations] export,” implying that no CITES permits would be required for such exports.

Foreign trade in respect of species listed in Appendix II and III of CITES whether wild or cultivated is regulated only to the extent that the exporter needs to have Certificate of Legal Possession issued by jurisdictional DFO, and the export is subject to CITES provisions. The regulations further stipulate the exports to be only from the ports of Mumbai, Nhava Sheva, Kolkata, Cochin, Delhi, Chennai, Tuticorin, Amritsar, Calicut and Thiruvananthapuram. Violations of the provisions of the EXIM Policy constitute an offence under the Customs Act and are dealt with by Customs officials.

Import of CITES listed plants, their products and derivatives are subject to the provisions of CITES. There is, however, no negative list of imports. The legal requirements for import of medicinal includes Import permit of CITES issued by the Regional Deputy Director (Wildlife), Export permit of CITES by exporting country. For import of seeds for planting/ sowing import permit under Plants, Fruits and Seeds (Regulation of Import into India) Order, 1989, is required. Similarly, Import license is required for import of seeds for consumption purpose.

**The EXIM Policy - Plants Prohibited for Exports:** Policy on Foreign trade in wildlife and wildlife products, prepared by the Ministry of Commerce, is established via the EXIM policy, which is revised periodically. This policy, is decided in consultation with the Director of Wildlife Preservation of the Government of India, and the CITES Management Authority for CITES

implementation in the country. The Director of Wildlife Preservation has four Regional Deputy Directors and four sub-regional offices of wildlife preservation, serving as assistant CITES Management Authorities. The EXIM policy is put into effect via the provisions of the Foreign Trade (Development and Regulation) Act (1992) and enforced via the Customs Act. The current policy is effective from 1st April, 2015 - 31st March, 2020

The Ministry of Commerce, vide its Notification No.24 (RE-98)/1997-2002, dated the 14.10.1998 (See Chapter 8 for full Notification) has placed 29 medicinal plant species in the negative list of export under Section 5 of the Foreign Trade Development & Regulation Act, 1992 (No.22 of 1992) read with Paragraph 4.1 of the Export and Import Policy 1997-2002. The list of these 29 species is given in Schedule 2 Appendix 2 of the book titled "ITO (HS) Classification of Export and Import Items 1997-2002" relating to export of plants, plant portion sand their derivatives and extracts obtained from the wild. The notification, thus, prohibits the export of 29 plants, plant portions and their derivatives and extracts as such obtained from the wild except the formulations made therefrom.

Government of India  
Ministry of Commerce  
Notification No.24 (RE-98)/1997-2002  
New Delhi, Dated the 14.10.98

S.O (E). Attention is invited to para 4 of Notification no.2 (RE - 98)/1997-2002 dated the 13th April, 1998 relating to export of plants, plant portion and their derivatives and extracts obtained from the wild.

In exercise of the powers conferred under Section 5 of the Foreign Trade (Development & Regulation) Act, 1992 (No.22 of 1992) read with Paragraph 4.1 of the Export and Import Policy 1997-2002, the Central Government hereby makes the following amendment in the Schedule 2 Appendix 2 of the book titled "ITC (HS) Classification of Export and Import Items 1997-2002" relating to export of plants, plant portion sand their derivatives and extracts obtained from the wild.

The export of under mentioned 29 plants, plant portions and their derivatives and extracts as such obtained from the wild except the formulations\* made therefrom, is prohibited:

1	Beddomes' cycad ( <i>Cycas beddomei</i> )	16	<i>Pterocarpus santalinus</i> (Red Sanders)
2	Blue Vanda ( <i>Vanda coerulea</i> )	17	<i>Taxus wallichiana</i> (Common Yew or Birmi leaves)
3	<i>Saussurea costus</i>	18	<i>Aquilaria malaccensis</i> (Agarwood)
4	Ladies slipper orchids ( <i>Paphiopedilium</i> species)	19	<i>Aconitum</i> species
5	Pitcher plant ( <i>Nepenthes khasiana</i> )	20	<i>Coptis teeta</i>
6	Red Vanda ( <i>Renanthera imschootiana</i> )	21	<i>Coscinium fenestratum</i> (Calumba wood)
7	<i>Rauvolfia serpentina</i> (Sarpagandha)	22	<i>Dactylorhiza hatagirea</i>
8	<i>Ceropegia</i> species	23	<i>Gentiana kurroo</i> (Kuru, Kutki)
9	<i>Frerea indica</i> (Shindal Mankundi)	24	<i>Gnetum</i> species
10	<i>Podophyllum hexandrum</i> (emodi) (Indian Podophyllum)	25	<i>Kamphergia galenga</i>
11	Cyatheaceae species (Tree Ferns)	26	<i>Nardostachys grandiflora</i>



12 Cycadaceae species	27 <i>Panax pseudoginseng</i>
13 <i>Dioscorea deltoidea</i> (Elephant's foot)	28 <i>Picrorhiza kurrooa</i>
14 <i>Euphorbia</i> species (Euphorbias)	29 <i>Swertia chirata</i> (Charayatah)
15 Orchidaceae species (Orchids)	

\*The term "Formulation" used here shall include products which may contain portions/extracts of plants on the prohibited list but only in unrecognizable and physically inseparable from.

ii) Plants and Plant portions, derivatives and extracts of the cultivated varieties on the above plant species (excluding Sl. No. 16) will be allowed for export subject to production of a Certificate of Cultivation from the Regional Deputy Director (Wildlife), or Chief Conservator of Forests or Divisional Forest Officers of the State concerned from where these plants and plant portions have been procured. However, in respect of the cultivated varieties of the species as covered by Appendix 1 (Sl. No.1 to 6 of Paragraph 2 (1) above and Appendix 2 (Sl. No.7 to 18 and Sl. No. 26 & 28) of Para 2 (1) above, of CITES Permit for export will also be required.

iii) The value added formulations, as defined under sub-para (1) of paragraph 2 above, made out of imported species of plants and plant portions as specified in Sub-para (1) Paragraph 2 now will be allowed to be exported freely without any restriction subject to furnishing of an affidavit to the Customs authorities at the time of export that only the imported plant species as above have been used for the manufacture of value added formulations being exported. In the event of affidavit proving to be false, on the basis of random sample tests, actions would be initiated against the firm under the Foreign Trade (Development & Regulation) Act, 1992.

iv) All formulations - herbal/ Ayurvedic medicines, where the label does not mention any ingredients extracted from these prohibited plants shall be freely exportable without the requirement of any certification from any authorities whatsoever.

v) Export allowed only through the ports of Mumbai, Calcutta, Cochin, Delhi, Chennai, Tuticorin and Amritsar.

3. This issues in public interest.

Sd/-  
(N.L. Lakhnpal)  
Director General of Foreign Trade

The Negative List of Exports as mentioned above was initially a part of the EXIM Policy 1997-2002. The list, however, continues to be operative since then. It is high time that this Negative List is revisited.

### 10.5. Foreign Trade under ITC (HS) Codes and its Limitations

Import and export restrictions for specific products in India are established via Indian Trade Classification (ITC) developed in accordance with the internationally standardized tariff nomenclature, known as Harmonized System of Coding (HS), developed and maintained by the World Customs Organization (WCO), an independent intergovernmental organization based in Brussels, Belgium, with over 200 member countries. Under the HS Convention, the contracting parties are obliged to base their tariff schedules on the HS nomenclature, although parties set their own rates of duty. India has adopted the foreign trade coding system in the form of ITC (HS) Codes for its import-export operations. Indian Customs, the designated agency to control and regulate import-export, currently uses a system of an eight digit ITC (HS) Codes for the purposes of foreign trade.

Foreign trade of medicinal plants in India also takes place under this 8-digit ITC (HS) Codes, even as this trade

does not get enlisted fully under any specific major category of ITC (HS) Codes. Analysis of the data of foreign trade compiled and published by the DGCIS reveals that the major diversity of medicinal plants in foreign trade is traded under ITC (HS) Code 1211 and its subsets (39 items) under Chapter 12. Some entities linkable to medicinal plants also get traded under Chapter 9, 13, and 14.

The existing trade classification system tends to club many medicinal plant entities in trade under the heads 'Others' viz. 121190.19, 121190.29, 121190.39, etc. As such, this 8-digit ITC (HS) Code is limited in its applicability to 400-odd medicinal plant entities that are under foreign trade to and from India. This inability of the existing ITC (HS) Codes to provide medicinal plant entity-wise data of exports/ imports is coming in the way of designing and implementing appropriate strategies for development and management of medicinal plant resources in the country. The issue has been discussed in detail in Chapter-8 of this report. There is an imminent need to revisit the ITC (HS) Code and selectively add 2 more digits to some of these Codes to be able to capture the diversity of medicinal plant entities in foreign trade. An indicative model of selective introduction of 2 more digits to the system without any change in the basic structure of to the existing ITC (HS) Codes has been suggested in Chapter-8.



*Gentiana kurroo* - A Red-Listed Himalayan Medicinal Herb

## 10.6. Conservation and Research

Many of the medicinal plants have been assessed as Red-Listed and are enlisted in the IUCN Appendices and under the Wildlife (Protection) Act, 1972. However, the immediate response to address the conservation issue related to these plants is to put these under 'Negative' lists. There is no national policy to effect long-term conservation of such threatened medicinal plants. The Foundation for Revitalisation of Local Health Traditions (FRLHT) has, since 1994 under various projects, helped the State Forest Departments of Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Maharashtra, Chhattisgarh, Arunachal Pradesh and Uttarakhand to establish Medicinal Plant Conservation Areas (MPCAs) as an *in situ* conservation measure of priority medicinal plant species. The National Medicinal Plants Board (NMPB) has also sponsored establishment of MPCAs in other States. However, in the absence of a comprehensive policy and guidelines on the subject, these conservation efforts have become state-specific lacking the national linkages so very important for a national program. Whereas some of the States are maintaining the MPCAs as 'hands off' areas, some other States are undertaking augmentation plantations in these areas.

Similarly, various organizations in the country are working on some or the other aspects of medicinal plants. In the absence of any national strategy on the subject, the organizations are left to themselves to decide upon and carry out research as they deem fit. Whereas there always is a concern about the possible duplication of the efforts, the subjects taken up for research are too varied and far too scattered to result into any tangible result at national level.

## 10.7. Conclusion

There is, thus, an urgent need to develop a national policy/ strategy for development of medicinal plant sector in the country covering the following broad aspects:

- Long-term *in situ* conservation and *ex situ* conservation
- Medicinal plant conservation areas
- Temporal considerations for long-term availability of medicinal plants for local and commercial use through creation of favourable economic environment for the large-scale cultivation of medicinal plants
- Access for primary health care needs
- Scientific studies and monitoring
- Post harvest handling and value addition
- Rules and guidelines concerning wild harvest, cultivation, and trade – including foreign trade
- Market linkages
- Provisions for quality control
- Awareness generation