

ANALYSIS OF THE LEGAL CONTEXT RELATED TO AROMATIC AND MEDICINAL PLANTS

Mr. N.G. Manjunatha*

Introduction

The Indian systems of medicine and homoeopathy are holistic systems of medicine. They are considered to be safe cost effective and without major side effects, these systems use various raw materials such as medicinal plants, materials of marine and animal origin, minerals, metals etc. however medicinal plants from 80% of the raw materials used the effectiveness of these systems mainly depend upon the proper use and sustained availability of genuine raw materials, the importance of medicinal plants was rather over looked in the past. However at present medicinal plants are looked upon not only as a source of affordable health care but also as a source of income. While medicinal plants are being utilized in the preparation of a number of modern drugs there is a new trend worldwide of using herbal medicines as a part of movement which advocates the use of natural products. There is also a growing demand for natural products including items of medicinal value, pharmaceuticals food supplements and cosmetics in the International market.

According to the report of the WHO over 80% of world population relies on the traditional systems of medicines¹. Charka advocated that any substance is medicines if we find a suitable medicinal use for it species of plants have become medicinal use for it a therapeutic use was discovered for them. India is known for its herbs and spices from ancient times some 2000 plants have been described in Ayurveda and at least 500 are in regular use. The world conservation union's Red list has named 352 medicinal plants of which 52 are critically threatened and 49 endangered.

Medicinal plants which means the plants which has a characteristic of curing the diseases, the entire plant kingdom consisting of more than 20,000 species originated in 12 centres

* Research Scholar in Law, Gulbarga University Kalaburagi & Asst.Professor in Law, Vidyodaya Law College(Aided) B.H. Road, Tumakuru.

¹ For additional information on ADIs relative to pesticide residues refer to the Report of the 1975 Joint FAO/WHO Meeting on Pesticide Residues, FAO Plant Production and Protection Series No. 1 or WHO Technical Report Series No. 592.

around the world one of them falls within the Indian subcontinent in the 'Western Ghats' spread over an area of 20,000 species it is notable for its rich biodiversity.

The Salient valley in the Western Ghats preserves the true biodiversity of the region about to species of medicinal herbs are found here and are used in indigenous system of medicine such as Ayurveda plants like lemon, grass patchouli and the vativer species have originated in this area. India has a history of thousands of years in the field of using medicinal plants so it is required at present to safeguard from both extinction and getting patent rights by other country.

Importance of medicinal plants

These medicinal plants are used in the field of medicine. India is one of the leading Countries in the field of medicine by medicinal plant. The Ayurveda is fully based on medicinal plant one of the advantage of this type of medicine it has very less side effects. Ninety three per cent of wild medicinal plants used for making ayurvedic medicines in the country are endangered and the government is trying to relocate them from their usual habitat to protect them. The threat to the plants came to the fore in an assessment exercise in different states carried out by the Botanical Survey of India. The assessments were done for a total of 359 prioritized wild medicinal plant species. Out of this, 335 have been assigned Red List status ranging from critically endangered, endangered, vulnerable to near-threatened. In addition, a total of 15 such species recorded in trade have been found threatened, officials in the health ministry's Ayush department said. Some of the rare plants reported to be threatened, have been relocated during the last decade, including *Utleria Salicifolia* and *Hydnocarpus Pentandra* in Western Ghats, *Gymnocladus Assamicus* and *Begonia Tessaricarpa* from Arunachal Pradesh and *Agapetes Smithiana* in Sikkim.

The assessments have involved conducting Conservation Assessment and Management Prioritisation using International Union for Conservation of Nature and Natural Resources (IUCN) Red List Categories². The officials said the medicinal plant resources in the country are threatened by over exploitation to meet the demand of herbal industries. As per the information received from the Ministry of Environment and Forests, about 95

² United Nations Environment Programme,
(<http://www.chem.unep.ch/pops/default.html>).

per cent of such plants are harvested from the wild, primarily from forests. The National Medicinal Plants Board constituted in November 2000, has been implementing a Central sector scheme for development and cultivation of medicinal plants since 2000-01.

This scheme was revised and renamed as "Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants" during 2008-09. States forest departments have been given assistance for protection and propagation of such endangered species, especially used by the herbal industries.

We can see the example such as:

- a. Use of turmeric in wound healing
- b. Use of kasseri, aloe vera in the field of cosmetic
- c. Sarpagandha: Used to treat blood pressure. It is found only in India.
- d. Jamun: The juice from ripe fruit is used to prepare vinegar which is carminative and diuretic and has digestive properties the powder of the seed is used for controlling diabetes.
- e. Arjun: The fresh juice of leaves is a cure for ear ache. It is also used to regulate blood pressure.
- f. Neem: Has high antibiotic and antibacterial properties.
- g. Tulsiplant: Is used to cure cough and cold.
- h. Kachnar: Is used to cure asthma and ulcers the buds and roots are good for digestive problems.
- i. Mint (Pudina): Controls vomiting extricates worms from intestine.
- j. Jasmine: Flower syrups were used for coughs and leaf tea to rinse sore eyes and wounds, jasmine flowers make a calming and sedative infusion.
- k. Ginger: Ginger also one of the world's best medicines, the Chinese consider ginger as an important drug to treat cold and encourages weating ginger brings relief to digestion.
- l. Gowrigadde: The root of canguli is used in the form of popular to treat arthritis, piles, and boils for extraction of foreign body for easy delivery baldness.
- m. Indian redwood (swamimara): It's a rich source of tannin used in treating malaria dysentery and rheumatic pains.
- n. Vidanga: The fruits and root of Vidanga is used in the form of powder and paste to treat worm's heart diseases skin diseases.

- o. Kumkumadamara: The glandular part of the fruits yield is called kamada powder which gives a rich golden red colour it is also used a good colouring agent in food processing.
- p. Wild turmeric: It is a good wound healer substitute for turmeric in food and has antidiabetic properties.
- q. Nagasampige: Flowers used for cough, stamens impart a pleasant aroma useful in bleeding disorders.
- r. Lemon: It is one of the most important and versatile natural medicines for home use. A familiar food as well as a remedy it has a high vitamin 'C' content that helps improve résistance to infection making it valuable for colds and flu.

Protection of medicinal plants in India

Historically all medicine preparations were derived from plants whether in the simple form of plant or in the more complex form of plant or in the more complex form of crude extracts mixtures etc. Today a substantial number of drugs all developed from plants the majority of these involve the isolation of the active ingredient medical compounds found in a particular medicines plant and its subsequent modification of such a compound could typically be useful pharmaceutical product.

A large proportion of such drug has been discovered with the via of plant the pharmaceutical company that makes such a drug applies for some form of IP protection the most favoured being the patent if granted the patent gives the company right to prevent anyone else from manufacturing or seeking the products

Ayurveda regime: IPR law

Ayurveda is one of the popular ancient medical systems used extensively in the modern period. It is gaining popularity worldwide as herbal medicine. It is an alternative and complementary to other models of medicinal therapies. Countries like South Africa, Zimbabwe and Nepal. In addition to India have majority share of Ayurveda in the pharmaceutical fields. It is a money spinner in the global market place.

Ayurveda – protection under protection of plant varieties and Farmers Rights Act, 2001

The protection of plants varieties and Farmers Right Act 2001 contains the provisions for conservation, Exploration, Collection, Characterization and Evaluation of plant genetic resources the Act protects the new plant varieties and rights of farmers and breeders engaged in developing new varieties of plants including the medicinal plants.

Ayurveda and the Biological Diversity Act, 2002

The objectives of the Act are to conserve the biological diversity and equitable sharing of benefits arising out of use of genetic resources India with its vast biological resources and traditional knowledge to use the same has the advantage to use the same for the benefit of the nation. It provide for commercial utilization.

IPRs and medicinal plants

India has a great tradition of indigenous medicine from times of immemorial and Ayurveda was the product of centuries of research by ancient rishis. Ayurvedic medicines were created by a combination mostly of herbs and also of minerals and metals the ancients mastered the knowledge of utilizing the herbs etc for medicinal purposes and the system was fairly advanced and comprehensive, they even developed certain forms of surgery. The same is true to a certain extent of unani and sidha systems of indigenous medicine in India.

The famous convention for the protection of new varieties of plants of 1961 which entered in to force in 1968 (UPOV) convention provided for the preconsolidation of the rights of the breeder of new varieties of plants. This agreement was revised in 1978 and all India acceded to this convention on 31st May 2002. India is a signatory to TRIPS Agreement in to force on 1st January 1995 of would be legally obliged to recognize both the product and process patents by a cut-off date Jan 1 2006. As the Indian Biological Diversity Act 2002 stated India is rich in biological and associated traditional and contemporary knowledge system relating thereto. India is a treasure house of medicinal plants. With a total out lay of Rs. 630 crore is being implemented since 2008-09 by national medicinal plants board. A total of 24 states have been covered under the scheme (National mission on Medicinal Plants)

Legal regulation of medicinal plants & cosmetics

- (a) The Drugs & Cosmetics Act 1940: The object of this Act is to regulate the important manufacture distribution and sale of drugs & cosmetics. The Central government can establish a central drug laboratory under the control of director to carry out the functions entrusted to it by the said Act.
- (b) The Pharmacy Act of 1948: The aim of this law is to regulate the profession of pharmacy. Whereas it is expedient to make better provision for the regulation of the profession

- and practice of pharmacy and for that purpose to constitute pharmacy councils.
- (c) The drugs and magic remedies (objectionable advertisement) Act 1954: This Act is meant to control the advertisements regarding drugs; it prohibits the advertising of remedies alleged to possess magic qualities and to provide for matters connected therewith.
 - (d) The Narcotic drugs and psychotropics substances Act 1985: An Act to consolidate and amend the law relating to narcotic drugs to make stringent provisions for the control and regulation of operations relating to narcotic drugs and psychotropic substances to provide for the forfeiture of property.
 - (e) The drugs (price control) order 1995: This Act regulates the prices of drugs, the order provides the list of price controlled drugs.
 - (f) The Trade & Merchandise Marks Act 1958: This Act provides for the registration and better protection of trademarks and for the prevention of the use of fraudulent marks on merchandise.
 - (g) Patent Act 1970: Patent under the Act is a grant from the government to the inventor for a limited period of time the exclusive right to make use exercised and his invention after the expiry of the duration of patent anybody can make use of the invention. Hence the aim of the Act is to protect the invention.
 - (h) Protection of Plant Varieties and Farmers Right Act 2001: The Act contains specific provisions for the protection of plant varieties and the protection of farmers rights in India. The Act provided for the establishment of an effective system for protection of plant varieties thereby encouraging the development of new varieties of plants.
 - (i) The Seeds Act 1966: Provides for regulating the quality of seeds for sale and for matters connected therewith. There is a central seeds committee to advise the central government to implement the statute.
 - (j) Biological Diversity Act 2002: An Act to provide for the conservation of Biological diversity. Sustainable use of its components and fair and equitable sharing of the benefits arising out of use of biological resources and knowledge associated with it.
 - (k) Wild life protection Act 1972: Chapter III A containing sec 17 A to H has been inserted by way of an amendment in 1991. Earlier the Act did not provide for protection to the

plant. Sec. 17A–Prohibition of picking uprooting etc of specied plants, it provides that no person shall :

- a) Wilfully pick, uproot, damage acquire or collect any specified plant from forest.
- b) Posses sell or otherwise or transfer any specified plant, whether alive or dead.

Sec 17B-Grant of permit for special purpose under this chief wild life warden may permit use of specified plant, for i) Education ii) Scientific research iii) collection preservation by scientific institution iv)propagation by person or an institution approved by central government.

Sec 17C-Cultivation of specified plants

Sec 17D-dealing in specified plants without licence prohibited.

Sec 17G-It provides no person shall purchase receive or acquire specified plant or part.

Sec 17H-Under this section plants are the property belonged to govt.

- a) Industries(development & regulation) Act 1951
- b) Indian Forest Act 1927
- c) The forest conservation Act 1980
- d) Environment protection Act 1986

International conventions

- 1) The UPOV Convention 1991: The sui generis system for the protection of plant varieties. Union for the protection of new varieties of plants signed in Paris in 1967 it came into force and revised in 1972 and 1991, the UPOV Convention provided for the following privileges-
 - a) Breeder exemptions which allowed the breeder to use the protected varieties for research purposes and for breeding new varieties.
 - b) Farmer's privilege which allowed their former to use the protected varieties for research and for sowing next crop in their own form, on farm seed saving is still a practice in UPOV countries.

Protection of plant variety- there has traditionally been no legal protection for plant varieties in India. The act mainly focuses on the definition of farmer plant breeders rights and follows closely on the model of UPOV Convention the

plant variety protection and farmers right will proposed to a achieve the following objectives:

- a) Stimulation of the investment for resource and development in public and private sector for the development of new plant varieties by costing returns on such investments.
 - b) Promotion and growth of the seed industry through domestic and foreign investment.
 - c) Recognition of the role of farmers as cultivators and conservers and the contributions and conservers and the contributions of traditional rural and tribal communities to be countries agro-biodiversity by rewarding them for their contribution through benefit sharing and protecting traditional rights and farmers.
- 2) Convention on Biological Diversity 1992: The Convention on Biological diversity was adopted at the earth summit in Rio de Janeiro in 1992; the convention has 3 main goals conservation of biological diversity, sustainable use of its components and fair and equitable sharing of benefits arising from genetic resources.
- 3) International Treaty on plant genetic resources for food and agriculture 2004³: The international treaty on plant genetic resources for food and agriculture, popularly known as the international seed treaty, is a comprehensive international agreement in harmony with convention on biological diversity which aims at guaranteeing food security through the conservation. Exchange and sustainable use of the world's plant genetic resources for good and agriculture as well as the fair and equitable benefit sharing arising from its use. It also recognizes farmer's rights to freely access genetic resources.

Conclusion

By sty ding all these points we can conclude that medical plants are very required they are very importantly used in eliminating human diseases. India is very rich in medical plant Indians are using medicinal plant since from thousands of years ago so the medicinal plants are very important in India. The conservation of

³ Medicinal Plant Specialist Group. International Standard for Sustainable wild collection of Medicinal and Aromatic Plants (ISSC – MA). Version 1.0. Bonn, Gland, Frankfurt and Cambridge: Bundesamt für Naturschutz (BFN), MPSG/SSC/IUCN, WWF, Germany, and TRAFFIC. 2007 (BFN-Skripten 195). Fair Wild Foundation website. *Available at*: www.fairwild.org/documents. Accessed, 02/02/2017.

it is very essential the types medicinal plants such as neem, aloe vera, are largely grown in India. The modern origin plants i.e., medicinal plant so sufficient legislations must be incorporated so that the IPR's do not affect the medicinal plant of Indian origin.

References

1. WHO. WHO guidelines on good agricultural and collection practices (GACP) for medicinal plants, p. 1. Geneva, 2003. 36. WHO. Traditional Medicine: Fact sheet No. 134, Vienna.
2. Titz A. Medicinal Herbs and Plants – Scope for Diversified and Sustainable Extraction. Bangalore, 2004.
3. Leaman DJ. Sustainable wild collection of plants - make way for a new standard, Convention on Biological Diversity, 2008.
4. Kuipers O. Medicinal plants for forest conservation and healthcare, Non-wood forest products 11, FAO. Rome, 1997.
5. Hamilton AC. MAPs, conservation and livelihoods, Biodiversity and Conservation, 2004; 13:1477-1517.
6. FAO. a. Medicinal plants for conservation and health care, Non-Wood Forest Products No.11, Rome. 1997
7. FAO. a. Trade in Medicinal Plants, Rome, 2005.
8. Marshall E. Health and wealth from Medicin I Aromatic Plants. FAO. Rome, 2011.
9. Alam G, Belt, J. Developing a medicinal plant value chain: Lessons from an initiative to cultivate Kutki (*Picrorhiza kurrooa*) in Northern India. KIT Working Papers Series C5. Amsterdam, 2009.
10. The Times of India published on 7-4-2000
11. Vadivu G, Hopper SW (2012) Ontology mapping of Indian medicinal plants with standardized medical terms. *J Comput Sci* 8:1576–1584 CrossRef.
12. Mustafa S, Ishak RZ, Lukose D (2012) Ontology model for herbal medicine knowledge repository. *CCIS* 295:293–302
13. Evans S (2008) Changing the knowledge base in western herbal medicine. *Soc Sci Med* 67:2098–2106 CrossRef PubMed
14. Fu J-Y, Zhang X, Zhao Y-H et al (2011) Bibliometric analysis of complementary and alternative medicine research over three decades. *Scientometrics* 88:617–626 CrossRef.
15. WHO Traditional Medicine Strategy: 2002–2005. Geneva, World Health Organization, 2002 (WHO/EDM/TRM/2002.1).

