
ЧАСТНО-ПРАВОВЫЕ (ЦИВИЛИСТИЧЕСКИЕ) НАУКИ

Научная статья

УДК 346.16

ПРАВОВОЕ РЕГУЛИРОВАНИЕ ТОРГОВЛИ ЛЕКАРСТВЕННЫМИ РАСТЕНИЯМИ В ИНДИЙСКОЙ ЭКОНОМИЧЕСКОЙ СИСТЕМЕ

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Аннотация. Вопросы правового и торгового регулирования рынка лекарственных растений являются актуальными в современной экономике Индии. Растущий спрос на лекарственные растения в мире оказывает неблагоприятное воздействие на ресурсы лекарственных растений Индии. Существует острая необходимость в организации сектора торговли лекарственными растениями путем устойчивого использования дикорастущей популяции растений, расширения культивирования лекарственных растений и перехода на экспорт от необработанного сырья к готовым лекарственным средствам, соответствующим международным стандартам. Кроме того, сохранение богатства индийских лекарственных растений совершенно необходимо для развития международной торговли.

Ключевые слова: Индия, правовое регулирование, экономика, торговля, медицина, лекарственные растения

Для цитирования: Мала Агарвал. Правовое регулирование торговли лекарственными растениями в индийской экономической системе // Право. Безопасность. Чрезвычайные ситуации. 2023. № 3 (60). С. 55–60.

Scientific article

LEGAL REGULATION OF TRADE IN MEDICINAL PLANTS IN THE INDIAN ECONOMIC SYSTEM

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Abstract. Issues of legal and trade regulation of the market of medicinal plants are relevant in the modern economy of India. The increasing demand of medicinal plants in the world is causing an adverse impact on Indian medicinal plant resource. There is an urgent need to organize medicinal plant trade sector by sustainable use of wild population of plants, increased cultivation of medicinal plants and moving to export from unprocessed raw material to finished drugs suitable for international standards. Besides this conservation of Indian medicinal plant wealth is utterly necessary to favour the international trade.

Keywords: India, legal regulation, economy, trade, medicine, medicinal plants

For citation: Mala Agarwal. Legal regulation of trade in medicinal plants in the indian economic system // Pravo. Bezopasnost'. Chrezvychnyne situacii = Right. Safety. Emergency situations. 2023. № 3 (60). P. 55–60.

Introduction

India has a rich tradition of health cure based on use of herbal material, and has the privilege of being the only country which has a codified traditional medicine based health care system. These are Siddha and Ayurveda where the use of herbal medicinal plant material for health care

predominates as India has a rich heritage of flora and fauna due to its varied agro-climatic conditions and bio-geographic regions. India is a mega biodiversity region of the world with many biodiversity hot spots and variety of medicinal plants both temperate in Himalayas and tropical, here 8 000 variety of medicinal plants along with 6 200 indigenous variety are available.

India is the world's second largest producer of medicinal plants after China and share 70 % of the total global demand along with China. In India around 8 610 licensed herbal units are present, besides this there are a large variety of export houses, extractors/semi processors and cottage level herbal units. The total consumption of herbal raw drugs along with the export is 5, 12,000 MT including 1 178 medicinal plants having value of about 7 000 crore. India has third rank in terms of essential oils, the key ingredient of medicinal property of plants. Total share of essential oils of India in terms of percentage is 16–17 percent which is second in terms of value.

The global market is expanding and therefore demand of Indian medicinal and aromatic plants which includes a wide variety of essential oils like basil seed oil, ginger oil and other wide variety used in varied industries is increasing. This review paper deals with the problems and perspective of medicinal plants trade at present being faced by developing countries like India.

Trade in medicinal plants

India has rich biodiversity and due to its unique climate, rich traditional knowledge and cultural heritage of medicinal plants there is a lot of opportunities for developing the markets for medicinal plants and their products.

Health care end uses require medicinal plants and their products which must be pure, botanically well identified, hygienic and consistent in quality, they must have required ingredients for health and medicinal purposes and should have reliable and consistent volumes for large scale production. According to report on 'Trade in medicinal plants' by Food and Agricultural Organization of United Nations in Rome, the supply of medicinal plants and their products require carefully selected, harvested, hygienically handled and stored plant material through the harvest, post-harvest and subsequent transport. Sometimes many of these requirements are difficult specifically for plants harvested in wild conditions and in small scale / untrained operators. Improved training, collection, supervision, testing and post-harvest facilities are the need of the hour.

Most of the medicinal plants are used by tribes/indigenous communities in crude form without knowing their active principle, appropriate research is needed for the use and marketability of the plants. Lack of the knowledge of Intellectual property rights are an important issue for all developing country exporters. Plants are used in traditional/conventional medicines for centuries and require to be protected by patent by registering as individual or regional trademarks.

The market for products which are based on natural materials and produced without harmful chemicals/pesticides has been increasing rapidly in many countries as consumers become increasingly health conscious. Consumers in developed countries are demanding greater information on the ingredients and the additives found in their food, drink and health products including knowledge on processes to grow, the plant raw materials used in the products even on the cost of higher prices.

At present domestic and international trade in medicinal plants is increasing and expanding, however, this is not resulted in substantial benefits for developing countries or particularly to growers and producers as there is no increase in prices for raw materials has been seen. The main reason behind this is the fact that much of the resource is harvested in the wild and by poor people. Pressure is maintained on prices, quality and reliability of material supply due to long market channels and as in the export markets, trade is largely in unprocessed or slightly processed form, the much of the return is going to traders and other intermediaries.

There is an urgent need that developing countries must improve the requirements for health and safety regulations, origin and quality of the raw material. There is a need to improve the extent and the accuracy of the statistics that are available on all aspects relating to the markets and trade in medicinal plants.

The demand for herbal drugs in developing countries is wide enough and also increasing fast in developed countries. This has motivated national and international pharmaceutical companies to explore them at large commercial scale and causing adverse impact on wild populations of Medicinal plants. Indiscriminate harvesting of these plants is depleting the natural populations due to inefficient international trade regulation and legal loopholes [1]. This has caused Pressure on the plants which are in greatest demand and causing concern for the long-term sustainability of the natural resource. There are some species of medicinal and aromatic plants that are traded in high volumes and therefore they are under threat [2]. This problem is pointed in analytics [3], publicistics [4] and special press [5].

As Per the report of the task force on conservation and sustainable use of medicinal plants, Government of India, Planning commission, appropriate management of medicinal plant resources is needed to conserve biodiversity and provide critical resources to build sustainable rural livelihoods. This requires greater cooperation between those producing, harvesting and trading in the plant material, including governments.

Promotion of trade through improvement, conservation & restrictions. Scope for improvement in medicinal plants trade

A number of measures are necessary to enhance the efficient trade in medicinal plants and their products in developing nations. Cooperation of farmers at village/regional level specifically of those who have small land holdings so that large consistent supplies can be guaranteed. There should be a direct contact between producers and collectors by reducing number of intermediaries in the distribution and marketing. This will give negotiating power in hand of producers, collectors and will also enhance their profits as many of them are poor and depend for their livelihood on plants. There is need for modern techniques and improvement for post collection handling, value addition and product presentation, research and development on the chemical composition and active ingredients of selected potent medicinal plants. The active principle, organic content and safety measures of the produce should be highlighted for capitalization of the product for export market. The officials, government and leaders should develop strategies to improve cultivation by high quality plants, must introduce quality control and encourage investment in various fields specifically in modern technologies. The resources must be cultivated in sustainable manner by developing countries; they should try to enter markets step by step that is from early stages of supplying raw materials first to developed country then providing finished herbal products and remedies to the highly regulated market. To earn more profit value-addition through process is needed supplemented by improved marketing with equitable sharing of benefits. There is a need of development and promotion of complete market chain including growers, harvesters and collectors and traders as well as enterprise development. The production should be market oriented for the healthy growth of the sector.

Conservation of medicinal plants

A number of medicinal plants species are on the verge of extinction due to over exploitation and lack of awareness among people for their uses. Forestry sector can ensure conservation and sustainable maintenance of the medicinal plant species. Medicinal plants Conservation Area (MPCAs) presently known as medicinal plants Conservation Development Areas (MPCDAs) conserve & manage medicinal plants in their natural conditions and habitats [6]. It was started in 1993 by United Nations Development Programme (UNDP) in the Southern States of India [7].

Even 108 MPCAs were developed till 2003 in 13 states of the country to conserve medicinal plants.

The national government has laid out scheme for medicinal plant conservation areas (MPCA) that include the following:

1. Efforts to cover the populations of entire wild medicinal plants of the country. The sites must cover the forest types, altitudes, species rich areas with medicinal plants including sites having red listed species.

2. Identification of forest areas including protected areas having high biodiversity with sites of traditionally important medicinal plants species with red-listed medicinal species.

3. Survey and documentation of all plant taxa included in MPCA with maintenance of herbarium records, their distribution patterns.

4. Each site should be large enough with efficient measures to protect them from fire, abiotic and biotic pressure.

5. An effort for species recovery of critically endangered and planting program for economically important plant species by finding breeding populations of red listed and economically important plant species.

6. Strengthening and developing community establishments for efficient management of medicinal plant species sites as well as training of community persons in traditional forests and of wildlife staff for in-situ conservation of medicinal plants species.

Indian government has established National medicinal plant board (NMPB) under the ministry of AYUSH to deal with matters concerned with medicinal plant species and to support and promote cultivation, conservation, trade and export of medicinal plant species.

Recent initiatives of GOI are:

– to create awareness about importance of herbal drugs, NMPB has launched the virtual market place E-charak for medicinal plants and also organising three sixty five days awareness campaign on medicinal plant species. It has set up seven regional centres at various regions of the country. It has started developing a National Raw Drug Repository, 8 regional raw drug repository for the drugs being used in traditional systems of the country. The NMPB is developing guidelines to ensure quality of raw material supply to industries and to increase income for farmers by developing voluntary certification of raw material for healthy agricultural and field collection practices;

– council of Scientific & Industrial Research (CSIR), India has entered into a MoU with the Regional Centre for Science and Technology Transfer (RCSTT) of Indian Ocean Rim Association (IORA) for designating Central Institute of Medicinal and Aromatic Plants, Lucknow (CSIR-CIMAP) as coordinating center on medicinal plants. The IORA center at CSIR-CIMAP will establish a database on the important medicinal and aromatic plants, their value added products, related experts and industries of the IORA member states and organize meetings and training programs to promote trade, commerce and scientific exchanges to complement the strength and limitation of the member states. The coordination center will promote cooperation in the area of traditional knowledge related to medicinal plants for the welfare of the people of IORA member states.

Indian mint, Iranian saffron, Sri Lankan black pepper and mace from Indonesia along with over 300 other spices and medicinal plants will have their genetic information profiled and saved. Once established, it will be the biggest gene bank of medicinal and aromatic plants in the world. These plants are native to the 23 countries bordering the Indian Ocean. The member countries have begun efforts to build the gene bank, with their first across the table training program currently. The program also aims to make trade of these medicinal plants easier among the member countries like the trade of saffron. Iran is a leading exporter of saffron but the Iranian saffron in the Indian market comes via Europe where it is processed [8].

Legal provision in India for trade of medicinal plants in India

The demand of medicinal plants and herbal products in domestic and international market is increasing. To fulfill the increasing demand the medicinal plants are being over exploited to earn profit and due to this these resources specifically the wild populations of medicinal plants are depleting very fast many of them are on the verge of extinction or endangered now. There is an urgent need

to impose restrictions on unsustainable use of wild populations of medicinal plants. According to Biodiversity profile of India, Ministry of environment, forest & climate change, National and state governments has formulated policies and regulatory restrictions to save the wealth of the plants for future generations.

1. The Wildlife Protection Act, 1972.

The act prohibits export of the six species by section 2 of Schedule VI. Besides this the schedule VI prohibits rooting & picking of listed wild plant species.

- 1) cycasbeddomei (Beddome's Cycad);
- 2) vanda soerulec (Blue Vanda);
- 3) saussurealappa = S. costus (Kuth);
- 4) paphiopedilum spp. (Lady's slipper orchids);
- 5) nepenthes khasiana (Pitcher Plant);
- 6) ranantherainschootiana (Red Vanda).

2. The Biological Diversity Act, 2002.

The Act imposes regulations for permission of export and trade of biological resources. According to section 38 of the act central government can declare endangered red-listed species and prohibit/regulate their collection with the advice of concerned State government. Section 3 of the Act conditions that foreign nationals and NRI require prior approval from the National Biodiversity Authority for accessing biological resources for research/commercial utilization/bio-surveys.

3. Indian Forest Act 1927.

This act regulate the transit and export of cultivated, wild medicinal and aromatic plants through Forest Produce Transit Rules of the act which are related to storage, transit and export of medicinal plants. State governments have power to make rules to regulate the trade of forest produce.

4. The EXIM Policy.

The Export and Import Policy by Ministry of Commerce make provisions for trade of wildlife products including medicinal and aromatic plants based on threats due to indiscriminate trade in consultation with the Indian Government and the Management Authority for CITES implementation in the country. At present export of 29 plants, their derivatives, extracts obtained from the wild population, except formulations is prohibited.

5. Trade of plants listed in CITES appendices.

India as a signatory of CITES. It has provisions for export of plants, their portions, derivatives as well as extracts from the wild populations. Trade of plants species mentioned in the Wildlife (Protection) Act, 1972 / Appendix I of CITES is permitted from cultivated populations only. Besides this the exporter must have the Certificate of Legal Possession by the jurisdictional Divisional Forest Officer.

Conclusions

Herbal products contribute about USD62 billion in international markets (of which India's current contribution is only 2,5 %) which is expected to grow to USD5 trillion by 2050 [9]. This demonstrates the escalating growth in the herbal sector of international markets over the coming years. In order to fulfill the demand for medicinal and aromatic plants through sustainable and fair trade, it will be essential to engage all stakeholders including farmers, collectors and traders, as part of a holistic inclusive approach to enable expansion of the herbal sector in India. The wild populations of medicinal species are diminishing very fast due to unsustainable collection and harvest to meet the ever increasing international demand, there is need of developing cultivations methods for long-term sustainable supply of the species in the wild along with generating livelihood opportunities for communities and persons depend on it by implementing CITES guidance and management plans. The critically endangered species should be reintroduced to the natural habitat. The herbal raw material trade in India should be transparent. There is need to develop a robust system for traceability and ensuring chain of command for wild collected products to check illegal wild collection and to guarantee better remuneration to the harvesters for products in markets. There is need to develop

measures such as Fair Wild certification for conservation, sustainability and equitable trade of the medicinal and aromatic plants from the wild populations. The regulations for trade in wild or cultivated medicinal plants are different in States.

There is an urgent need for a national policy on conservation of medicinal plants as well as promotion of fair trade in Medicinal plants and herbal products for Sustainable Development.

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Информация о статье:

Поступила в редакцию: 01.05.2023

Принята к публикации: 21.05.2023

The information about article:

Article was received by the editorial office: 01.05.2023

Accepted for publication: 21.05.2023

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