



## Ministry of Environment and Forests

### KNOW INSTANCES OF PATENTING ON THE USES OF MEDICINAL PLANTS IN INDIA

Patents have been secured in USA, Europe and other countries on the uses of Medicinal plants from India, for e.g. on *Azadirachta indica* (neem), wound healing properties of turmeric (haldi), hypoglycaemic properties of brinjal, bitter melon, etc. Use of these biological materials is already known in India. The Indian Patents Act, for which the Ministry of Commerce and Industry is the nodal Ministry, does not provide for patenting of plants and animals.

Turmeric is widely used in India as spice, in medicines, cosmetics, and to heal wounds. US Patent Office (USPTO) granted patent (no.5,401,504) on wound healing property of turmeric in 1995 to two expatriate Indians. The Council for Scientific and Industrial Research (CSIR) challenged this patent on grounds of prior art, supporting their claim by documentary evidence of Traditional Knowledge (TK), including ancient Sanskrit text and a paper published in 1953 in the Journal of Indian Medical Association. USPTO upheld CSIR's objections and revoked the patent in 1997. Revocation of turmeric patent is a landmark judgement as it was for the first time that a patent based on TK of a developing country was successfully challenged.

Extracts from *Azadirachta indica* (neem) are used as pesticide, fungicide, in soaps, medicines, etc. European Patent Office (EPO) in 1994 granted patent (no.043257) to W.R. Grace and USDA for fungicidal properties of neem oil. In 1995, legal opposition filed against patent by an NGO and group of Indian farmers with the evidence that the invention claimed on patent was not novel. Patent was revoked by EPO in 2000.

## **Steps to Address Biopiracy**

After subsequent instance of patents on hypoglycaemic properties of brinjal, bitter gourd, etc., Government of India decided in 1999 to develop easily navigable computerized databases of documented codified Traditional Knowledge (TK). A collaborative project on Traditional Knowledge Digital Library (TKDL) was launched between CSIR and Deptt. Of Ayurveda, Yoga and Naturopathy, Unani, Sidha and homeopathy (AYUSH), with the objective to prevent grant of “bed” patents on traditional knowledge (TK). TKDL is being developed on codified TK on Indian systems of medicines (i.e. Ayurveda, Unani, Sidha And Yoga).

Nearly 8,05,000 Ayurvedic formulations, 98,700 Unani formulations, and 9,970 Sidha formulations have been transcribed in patent application format in five languages (English, French, German, Spanish and Japanese). For Yoga, transcription is to be initiated shortly. Access to TKDL database will be provided to international patent office's under non-disclosure agreement for the purpose of search and examination by patent examiners. This would prevent grant of bed patents, and expensive and time-consuming invalidation procedures for such patent.

In addition, the Biological Diversity Act enacted by Government 2002 provides for obtaining approval of the National Biodiversity Authority (NBA) before seeking registration of any patent based on biological material and associated knowledge obtained from India. The NBA also has the powers to take necessary measures on behalf of the Central Government to oppose the grant of intellectual property rights in any country outside India on biological resource or associated traditional knowledge obtained from India.

## **Agency Granting of Patents**

Patent System in India is administered under the superintendence of the Controller General of Patents, Design and Trade Marks (CGPDTM). The office of the CGPDTM is a subordinate office of the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry



and comprises the statutory offices of Patent office, Trade Marks Registry and Geographical Indication Registry. The controller General's Headquarter is located in Mumbai. There are four Patents offices in India with the head office in Kolkata and other Patents Offices at Chennai, Delhi and Mumbai. The Controller General, delegates his powers regarding various procedures for grant of patents to Joint Controllers and Deputy Controllers. Examination of patent applications is done by Examiners of Patents and Designs.

The Patent Office has brought out a detailed Manual of Patents Practice and Procedure which provide information to the public and users of the patent system on the practice and procedures followed by Patent Office for processing of patent applications. The Manual also incorporate the provisions of the Patents Act, 1970 as amended by the Patents (Amendment) Acts, 1999, 2002 and 2005, and the Patents Rules 2003, as amended by the Patents (Amendment) Rules, 2006.

The amendments to the Patent Act in 2002 and 2005 provide for mandatory disclosure in patent applications of the source and geographical origin of biological material, and traditional knowledge used in the invention. It also provides for pre- and post-grant opposition of applications and revocation of granted patents on grounds of non-disclosure or wrongful disclosure of source or geographical origin of biological resources and traditional knowledge.

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