India: Balming Foreign Wounds With Traditional Knowledge

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Patent is a set of exclusive rights granted to an inventor or assignee for disclosing and working the invention in the country. The patentability of an invention is based on three requisites namely novelty, industrial application, and inventive step (non-obviousness in United States). These three serve as *sine qua non*. Keeping the above criteria in mind, one can easily surmise that any 'invention' based on traditional knowledge does not fulfil the requirements of novelty and non-obviousness, as traditional knowledge already exists in public domain, serving as an evidence of prior art. This is an insurmountable impediment and any product or process based on traditional knowledge cannot be a suitable candidate for the grant of a patent. However, this has not stopped foreign companies, indulging in biopiracy, from exploiting Indian traditional knowledge.

Traditional knowledge forms an indispensable component of a community, owing its existence to social and physical environment of the said community. Over the years, there have been several incidents where foreign entities have attempted to, and in some cases succeeded in misappropriating Indian traditional knowledge. The easy availability of Indian traditional knowledge made it particularly susceptible to exploitation by foreign enterprises, who had been taking unscrupulous steps to obtain patents for 'inventions' involving traditional knowledge, without rewarding the communities. Another factor which played a significant role in enabling biopiracy was the actuality that Indian traditional knowledge subsisted in languages which were not understandable by foreign patent examiners, the language gap inadvertently allowing multinational companies to obtain patents on products and processes based on Indian traditional knowledge. Such patent-holders then attempted to prevent others, including the community who gave birth to the particular traditional knowledge, from using the said traditional knowledge.

The Neem patent controversy of 1995 brought the issue of biopiracy to the forefront. In 1990, W.R. Grace, a Multinational Corporation, along with United States of America as represented by its Secretary of Agriculture, filed a patent application with European Patent Office for a method for controlling fungi on plants comprising contacting the fungi with a Neem oil formulation containing hydrophobic extracted neem oil which was substantially free of *azadirachtin*.[1] Upon the publication of the grant of the patent, an opposition was jointly filed by Linda Bullard, representing International Federation of Organic Agriculture Movements, Magda Aelvoet, on behalf of Green Group in the European Parliament, and Dr. Vandana Shiva, representing the Research Foundation for Science, Technology, and Natural Resource Policy, India. Opposition was mainly based on the

argument that fungicidal effects of hydrophobic extracts of Neem seeds were well known in India, where it has been used since time immemorial to cure dermatological issues as well as to protect crops from fungal infections.[2] Therefore it did not fulfil two out of three requisites for the grant of patent i.e. novelty and non-obviousness. It took 10 years for the matter to be settled, resulting in the patent being revoked.

Another incident which highlighted the misappropriation of Indian traditional knowledge by foreign entities was the grant of US patent on the method of using a wound healing agent consisting of turmeric. In 1993, University of Mississippi Medical Center had filed an application with United States Patent and Trademark Office, seeking a patent for a method of promoting healing of a wound in a patient, comprising essentially of administering a wound-healing agent consisting of an effective amount of turmeric powder to the said patient.[3] When the patent was granted in 1995, there was a hue and cry in India, the reason being that Indians were well-versed with the healing properties of turmeric, having been using it for its medicinal effects, for centuries. Therefore it lacked novelty and non-obviousness. After a tedious patent battle, India succeeded in having the patent revoked.

Learning a lesson from these incidents, the Indian government felt that documentation of existing traditional knowledge was imperative to prevent its exploitation. In furtherance of this endeavor, Traditional Knowledge Digital Library (TKDL), a digital knowledge library for the protection of traditional knowledge, was created in collaboration between the Council of Scientific and Industrial Research, Ministry of Science and Technology and Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy, Ministry of Health and Family Welfare.[4] This initiative aimed to record the available traditional knowledge in a digital and systematic format, in five languages, namely, Japanese German, French, Spanish, and English. Since traditional knowledge documentation lacked a classification system, Traditional Knowledge Resource Classification, a classification system based on the structure of International Patent Classification, was evolved.[5] Once the documentation of traditional knowledge was completed, access to the digital library was given to international patent offices on the condition of confidentiality. This allowed foreign examiners to reject patent applications for 'inventions' based on traditional knowledge.

Over the years, TKDL has been constantly in news, continuously thwarting attempts of foreign entities from obtaining patents on 'inventions' involving Indian traditional knowledge. In the past 10 years or so, since access to TKDL has been provided to international patent offices, there have been numerous instances where wrongly filed patent applications have either been rejected or even where a patent has been granted, in a post grant opposition, the same has been revoked. Vigilance exercised by TKDL, aimed at protecting Indian traditional knowledge, is truly applaudable. The success of TKDL has prompted other countries to take similar steps to document and systemize their traditional knowledge so that they do not lose their traditional knowledge to a foreign entity.