

Traditional Knowledge Digital Library (TKDL) as a Model for Protection of Traditional Knowledge and for Rewarding the Creativity in Traditional Knowledge

(Abstract)

India has established Traditional Knowledge Digital Library (TKDL) (<http://www.tkd.l.res.in>) to provide cover against infringement of country's rich traditional medicinal heritage having huge economic potential, of the kind that was witnessed during the last decade, including grant of wrong patents on wound healing properties of turmeric (1995) at the United States Patent & Trade Mark Office (USPTO) and on anti-fungal properties of Neem granted at European Patent Office (EPO).

The genesis of this maiden Indian effort dates back to the year 2000, when an interdisciplinary Task Force of experts was set up by Department of Ayurveda, Yoga, Unani, Siddha and Homoeopathy (AYUSH) and Council of Scientific & Industrial Research (CSIR), to devise a mechanism on protection of India's traditional knowledge. The TKDL expert group estimated that about 2000 number of wrong patents concerning Indian systems of medicine were being granted every year at international level, mainly due to the fact that, India's traditional medicinal knowledge exists in languages such as Sanskrit, Hindi, Arabic, Urdu, Tamil, etc. and was neither accessible nor understood by patent examiners at the international patent offices due to language and format barriers.

The TKDL breaks these barriers and has been able to scientifically convert and structure the information available in languages like Hindi, Sanskrit, Arabic, Persian, Urdu and Tamil, in open domain text books into five international languages, namely, English, Japanese, French, German and Spanish, with information contents in 34 million A4 size pages, with the help of information technology tools and a novel classification system – Traditional Knowledge Resource Classification (TKRC).

India has successfully concluded TKDL Access Agreements with European Patent Office (EPO), United States Patent & Trademark Office (USPTO), Japan Patent Office (JPO), Canadian Intellectual Property Office (CIPO), IP Australia, United Kingdom Patent & Trademark Office (UKPTO) and German Patent Office (GPO), etc.

TKDL Access Agreement has in-built safeguards on non-disclosure to protect India's interest against any possible misuse. Under the agreement, the patent examiners at International Patent Offices can utilise TKDL for patent search and examination purpose only and cannot reveal the content to any third party unless it is necessary for citation purpose.

Today, India through TKDL is capable of protecting about two hundred and twenty six thousand (0.226 million) medicinal formulations similar to neem and turmeric. On an average it takes five to seven years for opposing a granted patent at international level which may cost 0.2 – 1.0 million US\$. Therefore the cost of protecting two hundred and twenty six thousand (0.226 million US\$) medicinal formulations, in the absence of TKDL, would be staggering and completely unaffordable.

Misappropriation and bio-piracy are the issues of great concern for all the developing countries and this agenda is being pursued at multilateral forums such as TRIPs Council at World Trade Organisation and at World Intellectual Property Organisation. In the absence of international legally binding mechanism on protection of traditional knowledge, developing countries are required to initiate legally complex and expensive opposition proceedings at International Patent Offices. It is for this reason, Mexico, only after more than 10 years of legal battle, was able to get the patent on *Enola bean* at USPTO cancelled in July 2009. Similarly, cancellation on *Monsoonto Soybean* patent happened at EPO but after 13 years of legal battle and cancellation of *Neem* patent at EPO took 10 years for India.

Contd...2

In contrast, TKDL in last one year itself has submitted prior art evidences in 571 cases of bio-piracy at International Patent Offices with whom TKDL Access Agreements have been concluded. Significant outcomes at no cost have been realised. In two cases, EPO has set aside its earlier intention to grant patents after it received TKDL evidence. In the other 37 cases at EPO and 4 cases at CIPO (Refer: <http://www.tkdل.res.in/tkdل/langdefault/common/outcome.asp?GL=Eng>) applicants themselves decided to withdraw their four-to-five year old applications on being confronted with TKDL prior art evidences and in 2 cases applicants modified their earlier submitted claims.

It is expected that in the remaining (571-45) cases also, patent examiners would either reject these applications or applicants themselves would withdraw their wrong claims/ patent applications.

Recently, during March 22-24, 2011, World Intellectual Property Organisation (WIPO), in collaboration with CSIR, organised an International Conference on "Utilization of TKDL as a Model for Protection of Traditional Knowledge" where 33 developing countries rich in biodiversity and traditional knowledge participated.

Efforts are now underway to provide access to TKDL for research institutions so that knowledge repository of TKDL can be utilised for scientific validation of Traditional Knowledge, resulting in creation of new Intellectual Property, newer and affordable medicines which are globally accessible.
