



Examining National Legal Regime Relating to Traditional Knowledge

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Abstract: The researcher has through this research article made a modest attempt to examine Indian legal regime relating to traditional knowledge having medicinal value and use. At the onset author is aware that we have taken infant steps for protecting traditional knowledge in our country and we have as of today miles to go for effectively securing our traditional knowledge. In this paper an attempt shall be made to trace contemporary domestic legislative and judicial approaches related to same. At the same time international legal framework related to protection of traditional knowledge shall also be considered here. Efforts of international organisations like World Trade Organisation vide its multilateral IP related instrument - Trade Related Aspects of Intellectual Property Rights (TRIPS) and World Intellectual Property Organisation (WIPO) - which is a Specialised Agency of United Nations Organization shall also be reflected upon in this paper. The author shall also analyse relevant provisions of Convention on Biological Diversity and Nagoya Protocol. Foreign legislations protecting traditional knowledge offshores shall also be analysed.

I. Introduction: This research paper attempts to evaluate our legal regime relating to traditional knowledge. The author has undertaken this research journey to analyse whether our domestic legal framework is adequately protecting human rights of traditional knowledge holders. Sustainable development is the key to our holistic social development and progress. Traditional knowledge develops due to use of biological resources by indigenous locals in their day to day existence and lifestyle. Proper and apt legal mechanism protecting human rights of traditional knowledge holders can definitely contribute towards overall economic, ecological and cultural growth of the society. Also after lengthy and expensive litigations relating to revocation of basmati, neem and turmeric patents in offshore patent offices, we as proud Indians and conservators of our traditional knowledge should definitely have a certain and reliable legal mechanism protecting our sovereign rights over our own biological resources. In a country like ours where biodiversity is in abundance it is responsibility of every Indian to conserve it so that human rights of

traditional knowledge developers and holders are not violated and at the same time we can use our biological resources in a sustainable manner. For realisation of Sustainable Development Goals, traditional knowledge can play crucial role. But on one hand scientific research, investigations and studies exploit traditional knowledge for medicinal purposes and on other hand benefits out of such research hardly reaches true holders and developers of such knowledge.

II. Hypothesis

- ✿ **Hypothesis 1:** Our domestic legal regime adequately protects traditional knowledge.
- ✿ **Hypothesis 2:** Indians are aware about benefits of our traditional knowledge and utilise it in day to day basis.
- ✿ **Hypothesis 3:** Indians are aware about legal provisions relating to protection of domestic traditional knowledge.

III. Research Methodology: Non doctrinal, analytical and comparative research methodology shall be adopted by the author. E-survey will be conducted for gathering primary data from a sample size of at least two hundred respondents encompassing legal fraternity, laymen and in particular homemakers who are aware about inherent benefits of Indian traditional knowledge encompassing flora, fauna, spices, pulse, oils, grains, cereals and rely on it to keep their near and dear ones healthy.

IV. Limitation of the study: Personal interviews of traditional knowledge holders who the author considers to be the real stake holders of indigenous knowledge could not be realised by the researcher due to time and words constraint. The author deeply regrets that she could not include all forms of traditional knowledge such as folk lore and folk expression and folk tales in this journey but had to curtail her journey only to traditional knowledge leading to medical use and utilisation in Indian kitchens or kitchens of Indians residing offshores.

V. Significance of this research: The author has attempted to analyse awareness about legal provisions relating to protection of traditional knowledge based on primary data collected from Indian females not belonging to legal fraternity. Researcher has reached out to society at large to gauge whether our legal regime adequately protects rights of our traditional knowledge holders? The researcher has gathered primary data from Indians domiciled or residing within our borders as well as Indians residing or domiciled beyond our borders.

VI. Definitions of Traditional Knowledge:

Traditional knowledge refers to the knowledge, innovations and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language, and agricultural practices, including the development of plant species and animal breeds. Traditional knowledge is mainly of a practical nature, particularly in such fields as agriculture, fisheries, health, horticulture, and forestry.¹

A product of learning through experience and oral traditions passed over centuries, indigenous traditional knowledge is generated, transmitted, and strengthened through rituals, metaphors, proverbs, songs, oral history, human interactions, ceremonies, languages, experiences and practices.²

Traditional knowledge means any knowledge, not limited to a specific subject area, technical or medical field associated with genetic resources, originating from a traditional community, individual or group that is the result of intellectual activity and insight in a traditional context and where the knowledge is embodied in the traditional lifestyle of a traditional community or is codified in knowledge systems and passed on from one generation to another.³

Traditional knowledge means any knowledge—

- (a) originating from an individual, local or traditional community that is the result of intellectual activity and insight in a traditional context, including know-how, skills, innovations, practices and learning, embodied in the traditional lifestyle of a community; or
- (b) contained in the codified knowledge systems passed on from one generation to another including agricultural, environmental or medical knowledge, knowledge associated with genetic resources or other components of biological diversity, and know-how of traditional architecture, construction technologies, designs, marks and indications.⁴

¹ <https://www.cbd.int/doc/publications/8j-brochure-en.pdf>, retrieved on 9.2.24

² <https://www.un.org/sw/desa/traditional-knowledge---answer-most-pressing-global-problems>, accessed on 9.2.24

³ The Protection of Traditional Knowledge, Genetic Resources and Expressions of Folklore Act, 2016 of Zambia

⁴ Traditional Knowledge and Cultural Expressions Act, 2016 of Republic of Kenya

Traditional Knowledge means the knowledge, innovation and practices of local communities relating to the use, properties, values and processes of any biological and genetic resources or any part thereof.⁵

VII. International Legal Regime Relating To Protection of Traditional Knowledge:

The author shall now trace relevant provisions of CBD, Nagoya Protocol, UNDRIG and then move on to corresponding initiatives at domestic level.

The Convention on Biological Diversity (CBD) entered into force on 29 December 1993. * Preamble of CBD “recognizes the close and traditional dependence of many indigenous and local communities - - - -.”

*** Section 8 (j): “- - - - involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices.”⁶**

Nagoya Protocol:

*** Article 3: “- - - - This Protocol shall also apply to traditional knowledge associated with genetic resources within the scope of the Convention and to the benefits arising from the utilization of such knowledge.”**

*** Article 5: “- - - legislative, administrative or policy measures, as appropriate, with the aim of ensuring that benefits arising from the utilization of genetic resources that are held by indigenous and local communities- - - -.”**

*** Article 7: “In accordance with domestic law, each Party shall take measures, as appropriate, with the aim of ensuring that traditional knowledge associated with genetic resources that is held by indigenous and local communities is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established.”**

*** Article 10: “- - - - traditional knowledge associated with genetic resources through this mechanism shall be used to support the conservation of biological diversity and the sustainable use of its components globally.”**

*** Article 16: “Compliance With Domestic Legislation Or Regulatory Requirements On Access And Benefit- Sharing For Traditional Knowledge Associated With Genetic Resources.”**

United Nations Declaration on the Rights of Indigenous Peoples, 2007

*** Article 11: “States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and**

⁵ The Biodiversity Act of Bhutan, 2003

⁶ <https://www.cbd.int/doc/legal/cbd-en.pdf>, retrieved on 9.2.24

spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs.”

☼ **Article 31:** “Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge - - -.”

Importance of traditional knowledge as underlined by 21st Session of Permanent Forum on Indigenous Issues Twenty-first session at New York on 25 April–6 May 2022

“The Permanent Forum underlines the crucial role of languages, traditional knowledge and cultural heritage in the economic development of Indigenous Peoples, as well as their entrepreneurship role for the enjoyment of their rights to culture, language and traditional knowledge.”

Legislative Approaches towards protection of TK offshores:

Zambia: The Protection of Traditional Knowledge, Genetic Resources and Expressions of Folklore Act, 2016.⁷

The author tentatively attempts to give bird’s eye-view of Zambia 2016 Act:

The said Act:

- ☼ Provides for transparent legal framework for the protection of traditional knowledge, genetic resources.
- ☼ Guarantees equitable sharing of benefits
- ☼ Guarantees effective participation of traditional knowledge holders
- ☼ Recognises the spiritual, cultural, social, political and economic value of traditional knowledge, genetic resources of holders;
 - Promotes the preservation, wider application and development of traditional knowledge, genetic resources
- ☼ Promotes the conservation and sustainable utilisation of the country’s biodiversity resources;
- ☼ Gives effect to the African Regional Intellectual Property Organisation (ARIPO) Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore, 2010, the World Trade Organisation Trade-Related Intellectual Property Rights Agreement (TRIPS), 1994

Republic of Kenya: The Protection of Traditional Knowledge and Cultural Expressions Act, 2016.⁸

The author tentatively attempts to give bird’s eye-view of 2016 Act of Republic of Kenya:

The said Act:

- ☼ Provides a framework for the protection and promotion of traditional knowledge.
- ☼ Identifies responsibilities of the national government for the promotion and conservation of traditional knowledge and cultural expressions of communities in Kenya; the protection of traditional knowledge from

⁷ <https://www.parliament.gov.zm/node/5214>, visited on 9.2.24

⁸ <https://www.pckamunya.co.ke/wp-content/uploads/2018/07/Protection-of-Traditional-Knowledge-and-Cultural-Expressions-Act.pdf>, accessed on 9.2.24

misuse and misappropriation; and the facilitation of access of information and the sharing of information and data relating to traditional knowledge.

- ✿ Acknowledges the right to protection of traditional knowledge of the owners and holders of traditional knowledge.

Peru: Law On The Protection Of Access To Peruvian Biological Diversity And The Collective Knowledge Of Indigenous Peoples, Law No. 28216

The author tentatively attempts to give bird's eye-view of Peru Law No. 28216:

The said Act:

- ✿ Provides protection for access to Peruvian biological diversity and to the collective knowledge of indigenous peoples.
- ✿ Creates and establishes a National Commission for the Protection of Access to Peruvian Biological Diversity and to the Collective Knowledge of Indigenous Peoples and the National Commission maintains a register of biological resources and collective knowledge of Indigenous Peoples of Peru.
- ✿ Provides protection against acts of biopiracy.
Identifies and follows patent applications filed or patents granted abroad that relate to biological resources or the collective knowledge of indigenous peoples of Peru.

Costa Rica: Biodiversity Law No. 7788⁹

The author tentatively attempts to give bird's eye-view of Costa Rica Law No. 28216

- ✿ The diversity of cultural practices and associated knowledge of the components of biodiversity should be respected and promoted, in conformity with national and international legal standards, particularly in the case of the peasant communities, the indigenous people and other cultural groups.
- ✿ The State expressly recognises and protects, under the common denomination of sui generis community intellectual rights, the knowledge, practices and innovations of indigenous peoples and local communities related to the use of components of biodiversity and associated knowledge

Bhutan: Biodiversity Act of Bhutan, 2003.

The author tentatively attempts to give bird's eye-view of Bhutan Act of 2003:

The said Act:

- ✿ Recognizes and protects Traditional Knowledge, innovation and practices of local communities associated with biodiversity.
- ✿ Prevents illegal access to genetic and biochemical resources and associated Traditional Knowledge.

⁹ <https://wipolex.wipo.int/en/text/490132>, visited on 9.2.22

- ☼ Acknowledges that the rights exists in Traditional Knowledge whether or not the Traditional Knowledge is in material form.
- ☼ Acknowledges that rights conferred by Chapter 4 of the Act continue in force in perpetuity and are inalienable.

Brazil: The Law No. 13.123 of May 20, 2015 (Access and Benefits Sharing of Genetic Resources and Associated Traditional Knowledge) entered into force on November 17, 2015.¹⁰ The author tentatively attempts to give bird's eye-view of Brazil Act of 2015 The said Act:

- Provides for access to genetic heritage, for protection and access to associated traditional knowledge, and for benefit-sharing for conservation and sustainable use of biodiversity.
- ☼ Provides for fair and equitable sharing of the benefits arising from economic exploitation of finished products or reproductive material originating from access to genetic heritage or associated traditional knowledge, for conservation and sustainable use of biodiversity.
- ☼ Implements international treaties, approved by congress and promulgated, concerning genetic heritage or associated traditional knowledge.
- ☼ States that Access to genetic heritage or associated traditional knowledge will occur without infringing upon material or immaterial property rights related to genetic heritage or to the associated traditional knowledge accessed or to the site that it occurs.
- ☼ States that the benefits resulting from economic exploitation of finished product or reproductive material arising from access to genetic heritage of species found in in situ conditions or to associated traditional knowledge, even if produced outside the country, will be shared in a fair and equitable way.
- ☼ Advocates capacity building of human resources in topics related to the conservation and sustainable use of genetic heritage or associated traditional knowledge.

Hypothesis I: Our domestic legal regime adequately protects traditional knowledge.

With reference to hypothesis I the researcher shall trace legislative contribution relating to protection of traditional knowledge in India.

Legislative provisions relating to protection of traditional knowledge in India:

Patents Act, 1970:

Section 3(p) of Chapter II of 1970 Act lists Inventions which are not patentable:

“The following are not inventions within the meaning of this Act,— an invention which, in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components.”

¹⁰ https://wiki.uio.no/nhm/skf/best-practices/images/f/fe/Law_13.123_On_access_to_genetic_heritage_-_English.pdf, visited on 9.2.24

The Biological Diversity Act, 2002

Since India is rich in biological diversity and relevant traditional knowledge, this 2002 Act aims to provide for its conservation, sustainable use and advocates equitable sharing of benefits arising from such indigenous knowledge.

Tracing grassroots level initiatives for protection of Traditional Knowledge:

Constitution of Biodiversity Management Committees in tune with Section 41 of Chapter X of Biological Diversity Act, 2002:

Functions of BMC:¹¹

- ☼ Prepare, maintain and validate People's Biodiversity Register (PBR) in consultation with local people. The BMC is to maintain a Register giving information about the details of the availability and knowledge of local biological resources, their use or any traditional knowledge, access to biological and traditional knowledge granted, details of the collection of fee imposed and details of the benefits derived and the mode of their sharing.
- ☼ The BMCs would, in addition to the preparation of the People's Biodiversity Register (PBR), participate in ensuring protection of Traditional Knowledge recorded in PBR.

BMC Surat: Surat Municipal Corporation vide its Resolution No.722/2020, Dated 01/10/2020 constituted Biodiversity Management Committee (BMC) as per section 41(1) of Biological Diversity Act 2002 and Rules 22 of Biological Diversity Rules 2004 has established BMC.¹²

Sr.No.	Name of the Member	Designation	Category
1	Shri Banchhanidhi Pani, IAS	Municipal Commissioner	Chairman
2	Shri Punit Nair, IFS	DCF, Surat	Member
3	Smt. Kalpanaben M Atodaria	Member of Standing Committee	Member
4	Smt. Suchitraben S Patel	Chairman, Housing and Garden Committee	Member
5	Smt. Rashmikaben D Patel	Chairman, Social Welfare, Entertainment and Cultural Committee	Member

¹¹ <https://gsbb.gujarat.gov.in/biodiversity-management-committees-bmcs.htm>, visited on 9.2.24

¹² <https://www.suratmunicipal.gov.in/Services/BiodiversityManagementCommittee>, retrieved on 9.2.24

6	Shri Kamlesh Yagnik	Chairman, Sarvajani Education Society CRO, Surat Climate Change Trust	Member
7	Dr. M. N. Reddy	Professor of Biosciences, VNSGU	Member
8	Dr. S. J. Gautam	Garden Superintendent	Member Secretary

After tracing grassroots level initiatives in Surat for protection of traditional knowledge, the author moves on to trace national level initiatives in form of TKDL.

National initiatives to safeguard traditional Knowledge having medicinal use:

Traditional Knowledge Digital Library:

- ☼ Traditional Knowledge Digital Library has systematically and scientifically converted the ancient texts on Indian Systems of Medicines like Ayurveda, Siddha, Unani and Sowa Rigpa as well as Yoga, existing in local languages such as Sanskrit, Urdu, Arabic, Persian and Tamil into digitised format, which is as of now available in five international languages including English, Japanese, French, German and Spanish, with the help of information technology tools and an innovative classification system - Traditional Knowledge Resource Classification (TKRC).
- ☼ TKDL is not a transliteration, rather it is a knowledge-based conversion- Jwar is converted to fever, Turmeric to Curcuma longa, Mussorika to small pox and so on.
- ☼ TKDL acts as a bridge between formulations existing in local languages and a Patent Examiner at a global level, since the database will provide information on modern as well as local names in a language and format understandable to Patent Examiners. It is expected that the issue of the gap on lack of access to prior art traditional knowledge shall get addressed.
- ☼ Since 2009, team of TKDL successfully regulated biopiracy both with and beyond shores of India by identifying various patent applications in patent offices such as USPTO, EPO, CIPO, DPMA, UKPTO, CGPDTM which resulted in patent application in these offices being withdrawn, cancelled, declared dead, terminated or amended. This data is reproduced here in tabular form:¹³

S r . No.	Patent Office	No. of Cases
1	European Patent Office (EPO)	132
2	United States Patent and Trademark Office (USPTO)	26
3	Controller General of Patents Designs and Trademarks (CGPDTM)	39
4	Canadian Intellectual Property Office (CIPO)	36

¹³ Source: <http://www.tkd1.res.in/tkd1/langdefault/common/outcomemain.asp?GL=Eng>, retrieved on 9.2.22

5	IP Australia (AIPO)	10
6	United Kingdom Patent & Trademark Office (UKPTO)	1
	Total	244

Battles for Protecting our traditional knowledge offshores:

Neem Battle:

Neem patent was granted by the European Patent Office to the United States Department of Agriculture and the chemical multinational, W.R. Grace, in 1995. Dr. Shiva, along with the International Federation of Organic Agriculture Movement and the Green Party in European Parliament, had opposed it.

1995	A group of international NGOs and representatives of Indian farmers filed legal opposition against the patent. Three Opponents: the renowned Indian environmentalist Vandana Shiva, Magda Aelvoet, then MEP and President of the Greens in the European Parliament, and the International Federation of Organic Agriculture Movements (IFOAM).
Arguments put forward by Indians	They submitted evidence that the fungicidal effect of extracts of Neem seeds had been known and used for centuries in Indian agriculture to protect crops, and therefore, was not patentable.
1999	EPO determined that according to the evidence all features of the present claim were disclosed to the public prior to the patent application and the patent was not considered to involve an inventive step.
May, 2000	The patent granted on was Neem was revoked by the EPO in May 2000.
March, 2006	EPO rejected the challenge made in 2001 by the USDA and the chemicals multinational, W. R. Grace to the EPO's previous decision to cancel their patent on the fungicidal properties of the seeds extracted from the neem tree and revoked in its entirety a patent on a fungicidal product derived from seeds of the Neem, a tree indigenous to the Indian subcontinent.



Three Opponents: the renowned Indian environmentalist Vandana Shiva, Magda Aelvoet, then MEP and President of the Greens in the European Parliament, and the International Federation of Organic Agriculture Movements (IFOAM).¹⁴

According to Vandana Shiva, Director, Research Foundation for Science, Technology and Ecology one of the three parties to oppose the patent - said: "It was pure and simple piracy. The oil from neem has been used traditionally by farmers to prevent fungus. It was neither a novel idea nor was it invented. It is a major victory that the appeal has been finally dismissed."¹⁵



Dr. Vandana Shiva, who travelled from India to be present at hearing, commented, "What a lovely celebration for the women of India that this long-awaited decision falls on March 8th, International Women's Day. Denying the patent means upholding the value of traditional knowledge for millions of women not only in India, but throughout the South. The FREE TREE WILL STAY FREE. This victory is the result of extremely long solidarity. It is a victory of committed citizens over commercial interests and big powers."¹⁶

Linda Bullard, former President of the International Federation of Organic Agriculture Movements (IFOAM), stated, "We are deeply gratified that through our case the EPO has recognized the intellectual achievements of the South. We were able to establish that traditional knowledge systems can be a means of establishing 'prior art' and thus used to destroy the claims of 'novelty' and 'inventiveness' in these biopiracy patents. This now becomes case law, but the historic precedent must be further developed and transposed into overall international legal frameworks so that this type of theft is no longer possible."¹⁷

RFTSE and others had challenged the award of the patent on that the fungicidal properties of neem had been known in India for over 2,000 years and was not a novel product as claimed by the multinational.¹⁸

¹⁴ Source: <http://www.wloe.org/WLOE-en/information/globalization/neemvict.html>, retrieved on 9.2.24

¹⁵ <https://web.williams.edu/AnthSoc/native/neem.htm>, accessen on 9.2.24

¹⁶ <https://grain.org/en/article/2169-epo-upholds-decision-to-revoke-neem-patent>, retrieved on 9.2.24

¹⁷ <https://grain.org/en/article/2169-epo-upholds-decision-to-revoke-neem-patent>, retrieved on 9.2.24

¹⁸ http://timesofindia.indiatimes.com/articleshow/1067104.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst, retrieved on 9.2.24



Free Tree freed: protesters celebrate their victory outside the Munich patent office.¹⁹

Turmeric Battle

1995	Suman K. Das and Hari Har P. Cohlywere were granted a US patent (no.5, 401,504) on use of turmeric in wound healing.
Reexamination case filed with CSIR	The Council of Scientific & Industrial Research (CSIR), India, New Delhi filed a re-examination case with the USPTO challenging the patent on the grounds of existing prior art.
Arguments put forward by CSIR	CSIR argued that turmeric has been used for thousands of years for healing wounds and rashes and therefore its medicinal use was not a novel invention.
Documentary evidence	Their claim (CSIR) was supported by documentary evidence of traditional knowledge, including ancient Sanskrit text and a paper published in 1953 in the Journal of the Indian Medical Association.
Appeal by patent holders	Patent holders appealed to the US PTO.
CSIR objections were upheld	USPTO upheld objections of CSIR.
13 August 1997	India won the patent battle.
Revocation of Patent in 1997	USPTO revoked the patent.
Grounds for revocation of patent	USPTO revoked this patent after ascertaining that there was no novelty; the findings by innovators having been known in India for centuries.
Landmark Judgement	The turmeric case was a landmark judgment case as it was for the first time that a patent based on the traditional knowledge of a developing country was successfully challenged. India Sets International trend to challenge patents based on traditional knowledge

- ✿ In 1995, India challenged US patent on turmeric powder as wound healing agent on the grounds that it “Does not satisfy novelty criterion, well known in India for centuries.” On 13 August 1997 India won the patent battle and sets international trend to challenge patents based on traditional knowledge.²⁰
- ✿ R. A. Mashelkar, director-general of the CSIR has observed that, "This success will enhance the confidence of the people and help remove fears about India's helplessness on preventing biopiracy and appropriation of inventions based on traditional knowledge."²¹

¹⁹ Credit: Christine Strub, <https://www.nature.com/articles/35012778> retrieved on 9.2.24

²⁰ <https://www.csir.res.in/csir-milestones>, retrieved on 9.2.24

²¹ <https://www.herbalgram.org/resources/herbalgram/issues/41/table-of-contents/article1242/>, retrieved on 9.2.24

Basmati Rice Battle:

☼ CSIR also won the Basmati patent battle.

1984	Robin Andrews, a Texan-the chief executive of the rice company RiceTec, developed a high-end rice that was a cross between basmati and American long-grain rice that could be grown in Texas. Pioneered earlier by researchers at Louisiana State University, this variety was called Texmati.
	It was a combination of the fragrance of basmati and American long-grain rice.
	Soon, more variants of basmati entered the market of USA, from Kasmati and Missimati (grown in Mississippi)
	RiceTec filed received a patent for the specific aroma and elongation of the grain from USPTO and not for name basmati.
April 28, 2000	Request for re-examination of this patent was filed. Soon Rice Tec chose to withdraw claims.

Though patent is revoked by USPTO, the researcher can trace existence of Texmati and Kasmati rice in global markets even today:

☼ In 2015, RiceTec sold some of its products, including Texmati, to the food company, Riviana, which is a subsidiary of an even larger Spanish-based company called Ebro Foods. A spokeswoman for Riviana says Texmati sales were up 30 percent in 2020 compared to the previous year, and the grain is available in two-thirds of grocery stores nationwide.²²

☼ RiceSelect Texmati White Rice, Long Grain, Gluten-Free, Non-GMO, 32 oz (Pack of 4 Jars)²³



☼ RiceSelect Kasmati Rice, 32-Ounce Jars, 4-Count²⁴

☼ Rice Select Jasmati, Long Grain Jasmine Rice, Gluten-Free, Non-GMO, 32 oz (Pack of 4 Jars)²⁵



²² <https://www.thekitchn.com/who-owns-basmati-texmati-23153188>, accessed on 9.2.24

²³ <https://www.amazon.com/RiceSelect-Texmati-White-American-Basmati/dp/B000EH4XYI?th=1>, accessed on 9.2.24

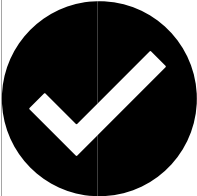
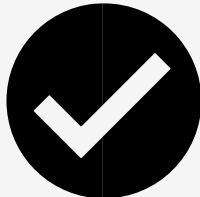
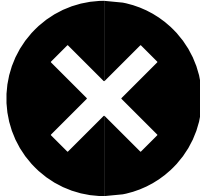
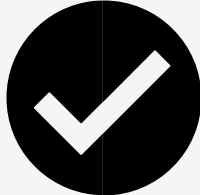
²⁴ <https://www.amazon.com/RiceSelect-Kasmati-Rice-Jars-Pack/dp/B000EH4XZ2>, accessed on 9.2.24

²⁵ <https://www.amazon.com/RiceSelect-Jasmati-Rice-Jars-Pack/dp/B000EH4XYS?th=1>, accessed on 9.2.24

Jasmati is a hybrid type of rice. This rice is produced in a mix of two famous kinds of rice. One is Jasmine rice and another is Basmati rice. Jasmati has a jasmine-like sweet flavor and basmati-like softness. For this reason, this rice is named so.²⁶

National Intellectual Property Rights Policy and Traditional Knowledge Digital Library:

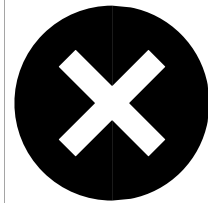
The author attempts to trace the vision of our NIPRP, 2016 with respect to traditional knowledge and ground factual reality of TKDL and gathers following compliances and discrepancies:

NIPRP, 2016	TKDL	Check Box
<p>Vision:</p> <p>An India where creativity and innovation are stimulated by Intellectual Property for the benefit of all; an India where intellectual property promotes advancement in science and technology, arts and culture, traditional knowledge and biodiversity resources.</p>	<p>So far more than 230 patent applications have either been set aside/ withdrawn/ amended, based on the prior art evidences present in the TKDL database without any cost and in few weeks/months of time.</p>	
NIPRP, 2016	TKDL	Check Box
<p>2.19. The ambit of Traditional Knowledge Digital Library (TKDL) should also be expanded to include other fields besides Ayurveda, Yoga, Unani and Siddha.</p>	<p>Traditional Knowledge Digital Library has overcome the language and format barrier by systematically and scientifically converting and structuring the available contents of the ancient texts on Indian Systems of Medicines i.e. Ayurveda, Siddha, Unani and Sowa Rigpa as well as Yoga, into five international languages, namely, English, Japanese, French, German and Spanish, with the help of information technology tools and an innovative classification system - Traditional Knowledge Resource Classification (TKRC). As on date, more than 3.6 lakh formulations/ practices have been transcribed into the TKDL database.</p>	<p>As envisaged by NIPRP, TKDL has now encompassed other fields such as Sowa Rigpa besides Ayurveda, Yoga, Unani and Siddha.</p> 
<p>2.20. Public research institutions should be allowed access to TKDL for further R&D, while the possibility of using TKDL for further R&D by private sector may also be explored, provided necessary safeguards are in place to prevent misappropriation.</p>	<p>Access to the full database is available to Patent Offices only under TKDL Access Agreement</p>	
<p>2.21. Document oral traditional knowledge, taking care that the integrity of the said knowledge is preserved and traditional ways of life of communities are not compromised.</p>	<p>TKDL is proving to be an effective deterrent against biopiracy and has been recognized internationally as a unique effort. TKDL has set a benchmark in TK protection around the world, particularly in TK-rich countries, by demonstrating the advantages of proactive action and the power of strong deterrence. The key here is preventing the grant of wrong patents by ensuring access to TK related prior art for patent examiners without restricting the use of traditional knowledge.</p>	

²⁶ <https://fooddevise.com/what-is-jasmati-rice/>, accessed on 9.2.24

4.12. Introduce approaches and mechanisms so that benefits of the IP system reach all inventors including MSMEs, informal innovators and holders of traditional knowledge.

As per the terms and conditions of the Access agreement, examiners of patent office can utilize TKDL for search and examination purposes only and cannot reveal the contents of TKDL to any third party unless it is necessary for the purpose of citation.



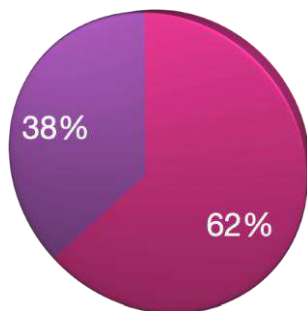
The researcher can trace few legislative provisions for protection of our traditional knowledge. But we do definitely lack a proper Sui generic system to protect our traditional knowledge. Even after revocation of basmati patent, the same company is marketing it under different brands and they are freely sold online.

For examining and testing her other two hypothesis; the author has conducted empirical research. **Hypothesis 2:** Indians are aware about benefits of our traditional knowledge and utilise it in day to day basis.

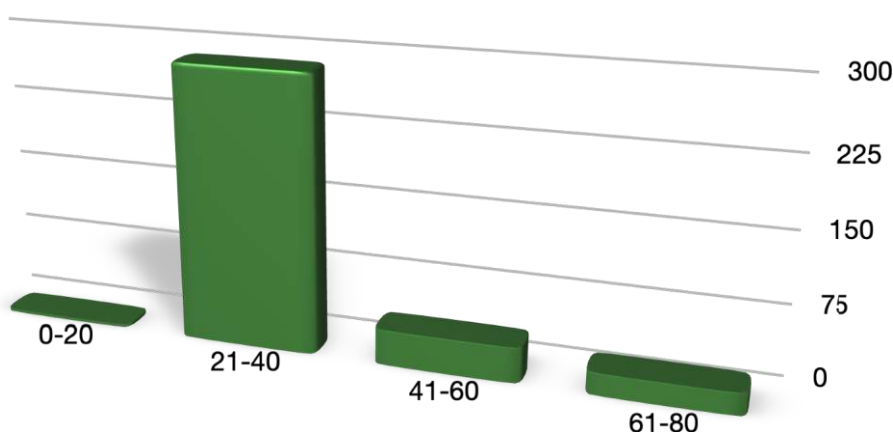
Hypothesis 3: Indians are aware about legal provisions relating to protection of domestic traditional knowledge.

● Female ● Male

Gender

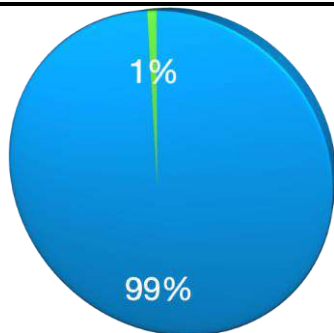


■ Age

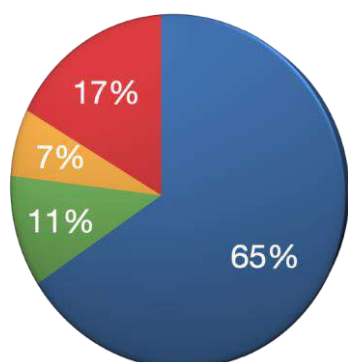


Country

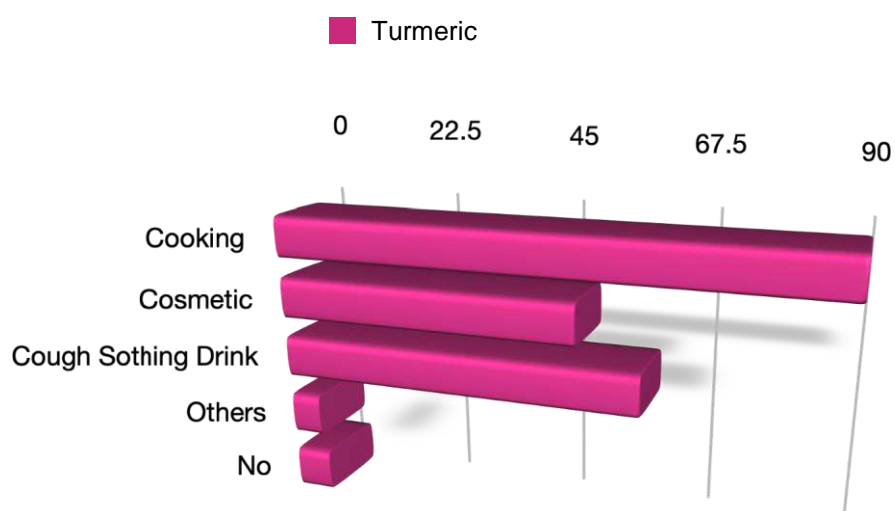
● India ● USA

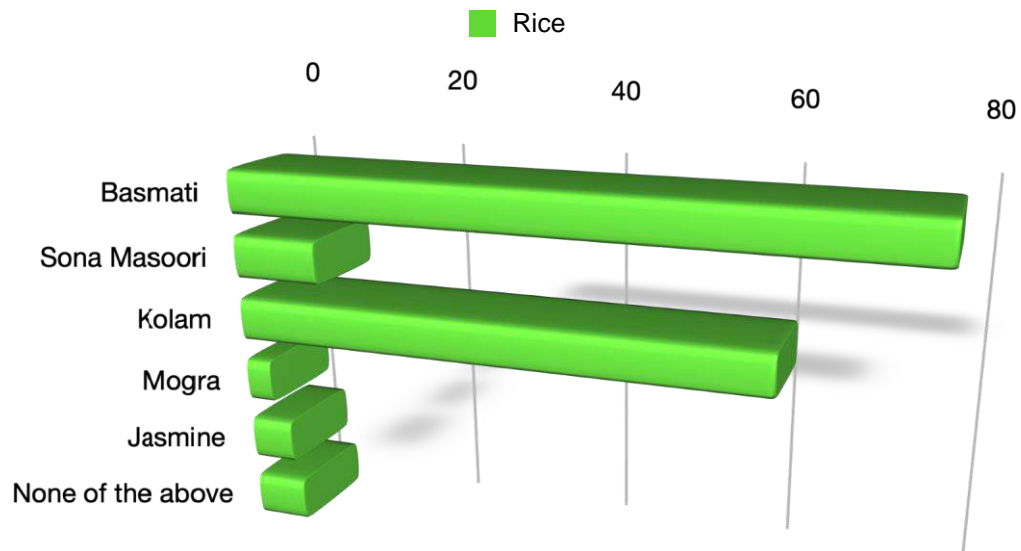
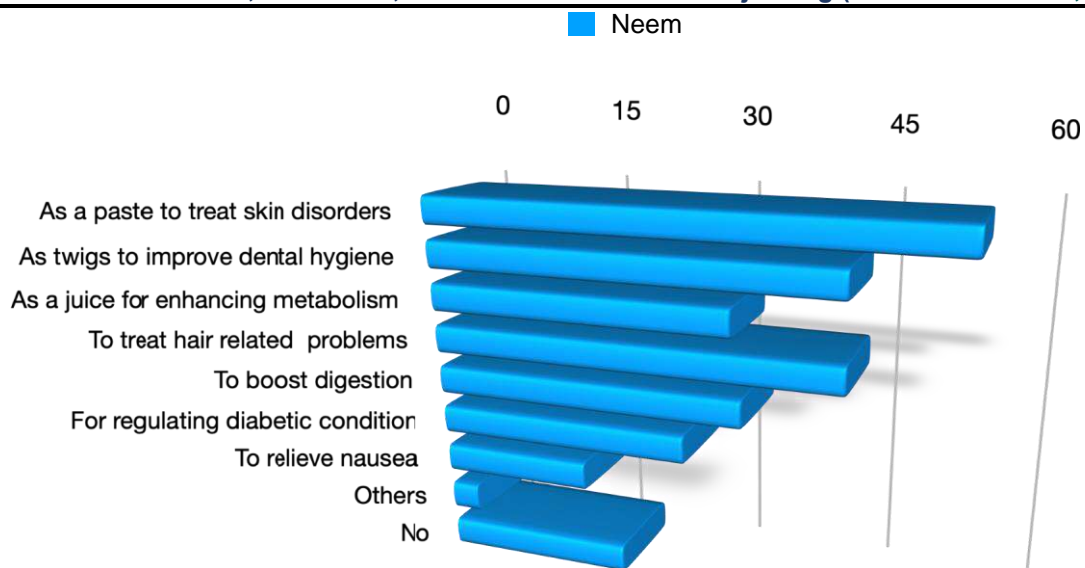


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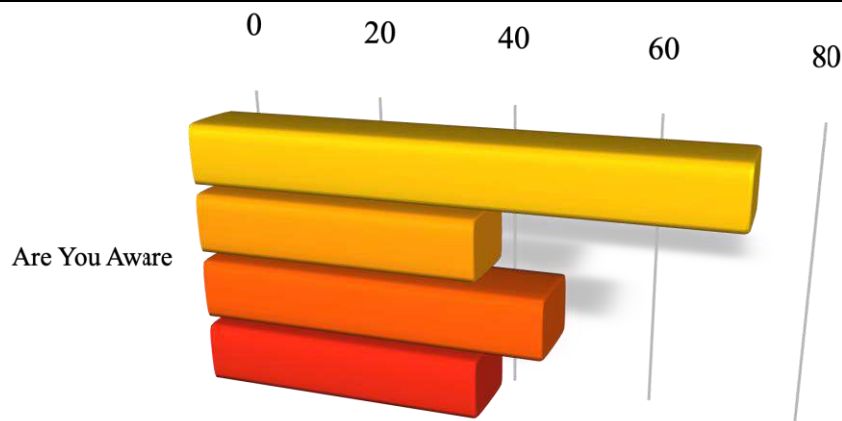


Law Students Lawyers Home Makers Others

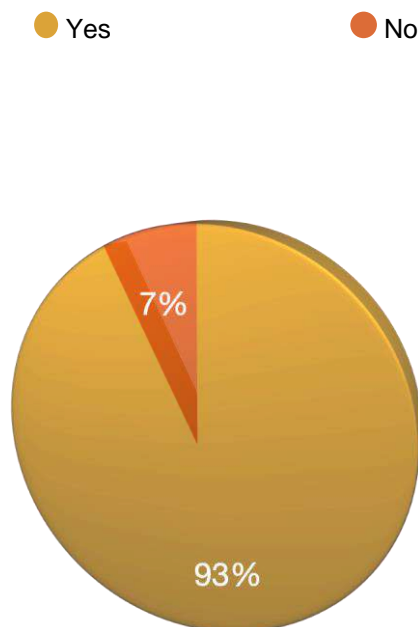




- That triple talaq is Illegal
- That the entry of women irrespective of age is now allowed in to the Shabrimala Temple-Shabrimala Case
- About any law protecting our traditional knowledge like medicinal use of turmeric, antiseptic qualities of neem, etc That
- Basmati rice is GI tagged in Punjab/Haryana/Himachal Pradesh/Delhi/Uttarakhand/U.P./J&K



Do you think we should have proper laws to protect traditional knowledge?



Data analysis:

Hypothesis 2: Indians are aware about benefits of our traditional knowledge and utilise it in day to day basis.

Hypothesis 3: Indians are aware about legal provisions relating to protection of domestic traditional knowledge.

The researcher has conducted empirical research to validate these two hypothesis. Sample size was about 357 respondents. Age group of respondents was from 20 - 75 years. Three Hundred and Fifty Four respondents are domiciled in India and three respondents of Indian origin are domiciled in USA. Respondents belong to different walks of society such as lawyers, doctor, yoga instructor, engineer, home makers, students, chartered accountant, journalist, corporate personnels and so on. The researcher gathers that most of the respondents are aware about benefits of our traditional knowledge and utilise it in day to day basis but only few of them are aware about legal provisions relating to protection of intellectual property rights. More than 90 % of respondents are aware about benefits of turmeric and use it in their daily routine either for cooking (90) or medicinal(60) purpose of cosmetic purpose(50). More than 80 % of respondents are aware about benefits of neem and use it in their daily routine either for treating skin disorders(54%), for dental hygiene(43%), enhancing metabolism(32%), hair treatment(43%), boosting digestive system(33%), regulating diabetic condition(27%), for reliving nausea(16%) and so on. 77% of respondents consume

basmati rice in their diet. Only 40% respondents were aware that basmati rice is GI tagged in following Indian States - Punjab, Haryana, Himachal Pradesh, Delhi, Uttarakhand, U.P., J&K. But even larger number of respondents were aware about contemporary legal provisions such as triple talaq is illegal in India today (73%). **From this researcher gathers that more awareness requires to be spread as far as intellectual property rights are concerned.** Only 49% of respondents are aware about legal provisions related to protection of traditional knowledge such as medicinal use of turmeric, antiseptic qualities of neem and so on. At the same time 93% of respondents have opined that we should have adequate legal regime for safeguarding our invaluable traditional knowledge.

Conclusion:

Hypothesis 1: Our domestic legal regime adequately protects traditional knowledge.

- ✱ With reference to Hypothesis I, the author now states that although there are sporadic legislative endeavours in forms of Patents Act, 1970 and Biological Diversity Act, 2002 and tentative initiatives in form of TKDL, India still lacks a holistic mechanism to safeguard our traditional knowledge.
- ✱ The author could not trace positive contributions by BMCs. Though Committees have been framed their achievements are till date unreported. Their functioning is yet not clear to the author.
- ✱ Though Basmati Patent has been revoked by USPTO, the author could trace that RiceTech Inc. even today is actively marketing Texmati, Kasmati and Jasmati and one can actually place order on Amazon. All this after APEDA had to spend about seven crores towards legal fee only for getting few claims of Basmati rice patent revoked as reported officially on TKDL website.²⁷
- ✱ An effective sui generic mechanism is required to protect our traditional knowledge similar to legislative approaches of Zambia, Republic of Kenya, Peru, Costa Rica, Bhutan, Brazil as traced above by the author.

Hypothesis 2: Indians are aware about benefits of our traditional knowledge and utilise it in day to day basis.

Nealy 85 % of respondents are aware about benefits of our traditional knowledge and utilise it in day to day basis - (more than 90 % of respondents are aware about benefits of turmeric and use it in their daily routine either for cooking and more than 80 % of respondents are aware about benefits of neem and use it in their daily routine either.)

Hypothesis 3: Indians are aware about legal provisions relating to protection of domestic traditional knowledge.

After conducting empirical research amongst sample size of 357 respondents, the **researcher gathers that more awareness requires to be spread as far as intellectual property rights are concerned.** Only 49% of respondents are aware about legal provisions related to protection of traditional knowledge such as medicinal use of turmeric, antiseptic qualities of neem and so on. At the same time 93% of respondents have opined that we should have adequate legal regime for safeguarding our invaluable traditional knowledge.

Recommendations:

The researcher very modestly makes a few humble recommendations for a Sui generic legal mechanism for safeguarding our traditional knowledge with reference to legislative provisions for protection of traditional knowledge offshores as analysed above.

The Convention on Biological Diversity (CBD) entered into force on 29 December 1993.

Section 8 (j): “- - - - involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices.”²⁸

²⁷ <http://www.tkdil.res.in/tkdil/langdefault/Common/Abouttkdil.asp?GL=Eng>, accessed on 9.2.24

²⁸ <https://www.cbd.int/doc/legal/cbd-en.pdf>, retrieved on 9.2.24

In tune with this provision even we can encourage active involvement of traditional knowledge holders for its large scale utilisation and see to it there is equitable sharing of the benefits.

Nagoya Protocol:

Article 7: “In accordance with domestic law, each Party shall take measures, as appropriate, with the aim of ensuring that traditional knowledge associated with genetic resources that is held by indigenous and local communities is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities.

In tune with this provision, traditional knowledge should be utilised only with prior and informed consent of traditional knowledge holders.

United Nations Declaration on the Rights of Indigenous Peoples, 2007

Article 11: “States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs.”

Effective redressal mechanism should be developed in our country also for safeguarding rights of holders of traditional knowledge.

In tune with Sui generic legal mechanism of **Zambia, Kenya, Cost Rica, Peru, Bhutan** we should also aim for a holistic Sui generic legal regime which will:

- provide for a transparent legal framework for the protection of traditional knowledge, guarantee
- equitable sharing of benefits,
- guarantee effective participation of traditional knowledge holders, recognise the spiritual, cultural,
- social, political and economic value of traditional knowledge, promote the preservation, wider
- application and development of traditional knowledge, promote the conservation and sustainable
- utilisation of the country's biodiversity resources; identifies responsibilities of the national government
- for the promotion and conservation of traditional knowledge of communities in India;
- protects traditional knowledge from misuse and misappropriation;
- facilitates access of information and the sharing of information and data relating to traditional
- knowledge, provides protection against acts of biopiracy and at the same time advocates capacity
- building of human resources for conservation and sustainable use of traditional knowledge.

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