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## Protecting Traditional Knowledge and Related Knowledge in India to Combat Climate Change

Dafy B. George

Dilshad Garden, Delhi, India

## **Abstract**

Combating Climate Change in developing and least developed countries incur extra cost, as it is generally dependent on the developed countries and multinational countries to provide them with necessary technological, financial resources. Most of the international commitments made by the developing countries like India were negotiated on the terms of technology transfer and flexibility of creating sui generis systems for protection of own resources. Developed countries have failed to ensure technology transfer or sharing of resources. Doha and Singapore Declarations are a proof of cringing and reluctance from that side. Countries like India have concentration of biological diversity and traditional practices that may be utilized for combating the problems of climate change, conservation and sustainable use. What we lack in our laws and domestic system is an effective and efficient manner to protect such diversity and practices. This paper envisages to first look at the international and various national means adopted till now to protect such traditions and practices and then specifically looks at the Indian scenario. It explores the options of protection through other IP regimes like Patents and Geographical Indications that may provide peripheral protection, and what a specialized regime would dictate in a country like India and the possible reach it may have to preserve such practices while ensuring that we are able to defend the problems of climate change and related issues. Countries like New Zealand and Australia have effectively protected their traditional, cultural practices through regulation and law and a nexus can be drawn to understand how a parallel regime maybe developed while protecting such practices and also fulfilling the international commitments (UNFCCC to Paris) of combatting the problem of climate change that afflicts the entire globe and coming up with means to eradicate it while protecting it from misappropriation by the developed countries and ensuring that it gets proper coverage and becomes a subject matter in its entirety at all levels and across countries. India has the Biodiversity Act and ABS guidelines and National IPR policy currently that relate to such subject matter (alongside specific IP laws) but it still needs clarity and connection in between to ensure that best practices maybe adopted to give ample protection and plan out the possible strategies to deal with future problems of climate change.

Keywords: Traditional Knowledge, Legal Regime, Climate Change, International Commitments, Intellectual Property.

There is no debate about whether or not Climate Change is happening. We will deal with it as a Challenge. But we also take it as an Opportunity to Invest.

Justin Trudeau

International commitments to mitigate effect of climate change have dwindled over the years globally. Countries have grown lax in taking concrete step to identify the necessary measures to avoid further warming up of our atmosphere. Annually our earth is growing warmer by atleast 1 degree and this translates in melting of glaciers, loss of habitat, change in climatic conditions and number of other adversities. The indigenous population that live off the coasts and in small islands are the worse affected by this. But they have also managed to survive the changing conditions with use of their centuries old knowledge and traditions and information that their older generations have passed them on. Indigenous knowledge operates at a much finer spatial and temporal scale than science, and includes understandings of how to cope with and adapt to environmental variability and trends. They can lend a very grand contribution in taking pratical and real time steps to avoid ill effects of climate change globally. The information supplied in this group is held in the community over the years and tested much more often than in any scientific experiments and predictions and data generated through trials and errors. In fact it can compliment the modern technologies and instruments that can predict information and possible solutions as per the terrain in question and the geographical area that needs to combat the effects of changing climatic conditions. Because the knowledge belongs to the people and is backed by scientific tests the people will feel more confident in applying the solutions and mitigating the ill-effects and make sure that no individual is raising up their arms in defense and are ready to prevent any changing conditions that are witnessed. Sustainable Development Goal 13 recognised this specifically and acknowledged the major contribution that can be made by these communities to formulate a feasible climate change policy. But at domestic level how governments have engaged with them is another controversy.

"Poorly designed and implemented climate change adaptation programmes, for Deforestation Reducing Emissions form and (REDD/REDD+) initiatives, often weaken the customary rights of indigenous peoples to their lands and natural resources, impairing their resilience. Indigenous peoples are facing these escalating pressures at a time when their cultures and livelihoods are already exposed to the significant stress of accelerated natural resource development in their traditional territories, due to trade liberalization and globalization. One significant manifestation of the marginalization of indigenous peoples from the climate change policy and decision-making is the paucity of references in the global climate change discourse to the existing traditional knowledge on climate change. Such international discourse has often failed to consider the valuable insights on direct and indirect impacts, as well as mitigation and adaptation approaches, held by indigenous peoples worldwide. Resilience in the face of change is embedded in indigenous knowledge and know-how, diversified resources and livelihoods, social institutions and networks, and cultural values and attitudes. Policy responses to climate change should therefore support and enhance

indigenous resilience. It is unfortunate, however, that many government policies limit options and reduce choices, thereby constraining, restricting and undermining indigenous peoples' efforts to adapt. This is reflected in counterproductive policies, including those leading to increased sedentarization, restricted access to traditional territories, substitution of traditional livelihoods, impoverished crop or herd diversity, reduced harvesting opportunities, and erosion of the transmission of indigenous knowledge, values, attitudes and worldviews."

India like many other developing countries is rich with biological diversity and includes large number of indigenous and local communities (ILCs) who use these resources and develop practices that are referred to as 'traditional knowledge and associated knowledge' in modern times. Traditional knowledge and associated practices have turned out to be the best way to combat with global problems of climate change, resource depletion, endangerment of species, conservation issue, etc. the developed country recognizing that the concentration of such knowledge doesn't lie with them very strategically kept it outside the purview of 'intellectual property' as such, as covered under TRIPs, unless when it relates to other identifiable IP regime like under patents or geographical indications, more commonly. They claimed that most of such knowledge is already in 'public domain' and thus proves to be a difficult subject matter to get protection under the traditional idea of IP regime as there is a difficulty is assigning a true ownership or authorship to an individual who is to be incentivized to develop it (sweat of brow doctrine) and there can be no duration or time limit set as generally it passes through generations to reach its most productive and known state.

Traditional knowledge includes in it wide array of information and wisdom of generations of individuals and different communities. Indigenous people who live in close nexus with nature and its components develop their lifestyles as per changing conditions of nature and climate and evolve their own rituals and habits as per the changes brought by nature. The appearance of certain birds, mating of certain animals and flowering of certain plants are all important signals of changes in time and seasons that are well understood in traditional knowledge systems. Indigenous people have used biodiversity as a buffer against variation, change and catastrophe; in the face of plague, if one crop fails, another will survive. In coping with risk due to excessive or low rainfall, drought and crop failure, some traditional people grow many different crops and varieties with different susceptibility to drought and floods and supplement these by hunting, fishing and gathering wild food plants. The diversity of crops and food resources is often matched by a similar diversity in location of fields, as a safety measure to ensure that in the face of extreme weather some fields will survive to produce harvestable crops. Adaptation to climate change includes all adjustments in behaviour or economic structure that reduce the vulnerability of society to changes in the

 $<sup>^{\</sup>rm 1}$  https://unu.edu/publications/articles/why-traditional-knowledge-holds-the-key-to-climate-change.html

climate system. Whether people can adept, and for how long, depends on the resources available.<sup>2</sup>

Internationally the recognition and interest in traditional knowledge and related innovations, practices started in the 1960s in relation to the culture, heritage aspect of it by WIPO and UNESCO. It was also taken up by FAO in the 1980s to identify the means and practices that may contribute to food security and ensure protection of rights on small farmers. Around the same time discussions for adoption of Convention on Biological Diversity (CBD) began, it was adopted in 1992 and gave express recognition to importance of traditional knowledge and related information, practices. Within its scope under Art. 8, 10, 15 various Working Groups were established that resulted in formation of guidelines that related to conservation, management, development of biodiversity and for prior informed consent, participation of ILCs, benefit sharing, etc. Nagoya Protocol in 2010 related to inclusion of provisions for access and benefit sharing in member countries from where traditional knowledge and related practices were taken from. Art. 27.3 of TRIPs also included traditional knowledge within its scope broadly.

In 2001, as a result of the World Intellectual Property Organization's (WIPO) interest and institutional competence regarding IP, as well as its mandates to protect intellectual rights, an international process was launched to explore how to legally protect TK (basically related to biodiversity) and folklore. The Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) was created for this specific purpose. There is after years of work and very hard negotiations, a draft (albeit very bracketed) text for the protection of TK. Afterwards UN Decl. on Rights of Indigenous Peoples came in 2007, which was a non binding international instrument for ILCs and their culture, heritage, practices and knowledge. Alongside these instruments at the international level, many countries at the national and regional level decided to develop policies, regulations, guidelines to protect their inhabitants and local communities.

Important and milestone setting regional and national examples in this regard include: the African Union Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources (adopted by the African Union in 2000), the Swakopmund Protocol for the Protection of Traditional Knowledge (adopted by the African Regional Intellectual Property Organization, ARIPO, and the African Organization for Intellectual Property, OAPI, in 2012), Law 21 of Panama for the protection of TK and folklore expressions (adopted in 1998) and its regulation, and Law 27811 for the protection of biodiversity related TK in Peru (adopted by the Peruvian Congress in 2001), respectively. Conventionally whenever

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<sup>&</sup>lt;sup>2</sup> B.A.Gyampoh, S. Amisah, M.Idinoba, J.Nkem, Using Traditional Knowledge to Cope with Climate Change in Rural Ghana, Vol. 60 Unasylva 231/232, 70-74(2009).

<sup>&</sup>lt;sup>3</sup> http://www.wipo.int/meetings/en/doc\_details.jsp?doc\_id=238182

<sup>&</sup>lt;sup>4</sup> Manuel Ruiz Muller , Protecting Shared and Widely Distributed Traditional Knowledge: Issues, challenges and options, International Centre for Trade and Sustainable Development Volume- VII, Issue-IV April 2019

the term 'protection' is used for any Intellectual Property, it envisages the subject matter to be granting exclusionary powers or ensure liability on violation of rights on misappropriation. This can be basically understood as the positive and defensive protection mechanism that is applicable on IP.

Under the positive protection regime certain rights are included as part of the intellectual property, in this case, to traditional knowledge that would ensure that the holders /owners/community members that possess this knowledge are able to enjoy certain rights that stem from such property. This is already there under patents, GIs, etc. Also countries may develop own sui generis system under their laws to award certain rights to holders of such knowledge. Under the defensive protection regime outsiders and intruders are prevented from using the traditional knowledge and related practices and information to create IP for themselves illegally. Creation of data banks, Disclosure of Origin requirements is examples of this strategy only.

India has resorted to defensive protection strategies till now for its traditional knowledge preservation. The Basmati, Neem, Haldi cases garnered enough attention and costs of the government and it was realized somewhere that along with defensive regime, a positive protection regime is also required where if traditional knowledge is being commercialized then the real benefit accrues to the community that held it and developed different practices from it rather than to private companies that are able to manufacture or utilize it more efficiently. The National IPR Policy 2016 identifies that the spirit of a nation like India won't agree to the idea of commercialization and selling of its traditional knowledge, culture, heritage but a transformation is mandatory to keep up with the changes of modern times to prevent misappropriation and exploitation. We have reached a point where we no longer wish to be a tragedy of commons and prefer selling the knowledge in an equitable manner that would benefit the public and community that holds such knowledge fairly (clause 1.2.2.). The latest policy discusses the possible ways to promote awareness towards IPRs, generation of it, possible legislative framework to protect it, its administration and management, commercialization, enforcement and possible human capital development because of it.

Traditional knowledge can be a good commodity for international trade for India and we can be a good source of this knowledge and related practices globally. But to trade in it first we need to ensure that our legal protection regime ensures that no other country or company abroad can misuse it or abuse to get other IP through it in their countries (objective 3). Participation in trade for such knowledge and related practices and products can only be ensured when at domestic level the community members can assert their rights and derive benefits from its use in an equitable manner. This is not possible if we only choose the defensive regime as has been opted in previous and current applicable policies. But a positive step has been taken by drawing parallel of the Patent Office with National

Biodiversity Authority, when biological resources are used in patent applications. Similar approach has been approved in the 2014 guidelines also which mandates certain share of sale to be accrued to the communities and related authorities to ensure that benefit sharing is done through monetary or non-monetary means equitably. Permission of NBA, SBB and BMC is required for accessing the resources, traditions, and practices and to draw out fair agreements with proper consent and involvement of communities. Clause 3.6. states that indepth study is required to determine the appropriateness and extent of applying 'existing' laws to protect traditional knowledge, genetic resources and traditional cultural expressions, and to propose changes if required. We still seem to be cautious and reluctant to develop our own legal framework for protection of TK and related knowledge and thus in such a scenario 'National TK Policy' comes off as the safest bet to ensure that concrete steps are taken towards this direction.

There can be softer means to ensure that distinction is drawn between the TK i.e. 'publicly available' and those in 'public domain'. First a mechanism is to be developed to ensure that true knowledge holders are identifies and recognized. Nexus can be drawn from the Geographical Indications Act that gives a resolution to the problem of a community honing particular skill and protection and still sharing benefits to them through the 'beneficiary' recognition system. After identifying this group their consent is to be sought that follows the international standards of being free from coercion, well informed, with involvement and understanding. Sometimes when the community is spread across a geographical location then States should be able to share the benefits equitably as has also been mentioned in the ABS guidelines in India. And if the tradition related to practices that are not known to public in general and is kept away from public eye then a regime can also be framed in maintaining it as a 'trade secret', which is greatly valued by the West and probable to draw higher economic rewards. We already have defensive protection regime activated in our country so as an innovation on violation we can develop a compensatory fund, different from fund created during benefit sharing, which can ensure that if violations are done they are taken accounted for and remedies provided against while accruing compensation to the true owners of the knowledge. And if no benefit sharing done in such situations also it will be easier for both parties to access these funds rather than to run behind each other and face high transaction and operation costs across jurisdictions. Thus, a national traditional knowledge policy can play a crucial role of establishing proper channels of benefit sharing and recognizing the communities till we are able to develop a national sui generis system and negotiate an international treaty on the same basis and get it included under a binding platform internationally to ensure efficient protection.

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