Managing the Knowledge of Indigenous Communities: UNDRIP, WIPO, TKDL and Ways Ahead

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ABSTRACT

This paper critically analyses the Articles of United National Declaration on Rights of Indigenous Peoples (UNDRIP), provisions of World Intellectual Property Organization,Database Management of Traditional Knowledge Digital Library (TKDL) using the construct of Social Justice Framework and Knowledge Management Cycle. The study also makes an assessment of the level of technology adoption among tribal population in India through the secondary sources and benchmarks the initiatives of the global and Indian agencies with respect to basic principles of Knowledge Management -acquisition, application, assessment, creation, value identification, refinement and dissemination. The need of collaborative management of the indigenous knowledge has been assessed from the perspective of sustaining the valuable knowledge and not just preserving and protecting it as records or documents.

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UNITED NATIONS AND INDIGENOUS KNOWLEDGE

UNESCO considers Indigenous Knowledge System as one Knowledge System amongst many. During 2005-2014 the organization developed an interdisciplinary approach towards the Indigenous Knowledge to categorize this knowledge system to ensure appropriate participation of indigenous communities in formation and execution of policies related to Indigenous Knowledge. This emphasis is in line with the United Nation's Declaration on the rights of Indigenous people adopted by the General Assembly in 2007. The Declaration adopted by the United Nations has 46 articles; all articles though recognize and reaffirm the rights of indigenous people equal to the rights of other people but the article 46 of the declaration says that:

"Nothing in this Declaration may be interpreted as implying for any State, people, group or person any right to engage in any activity or to perform any act contrary to the Charter of the United Nations or construed as authorizing or encouraging any action which would dismember or impair, totally or in part, the territorial integrity or political unity of sovereign and independent States".

Article 34 of the declaration says:

"Indigenous peoples have the right to promote, develop and maintain their institutional structures and their distinctive customs, spirituality, traditions, procedures, practices and, in the cases where they exist, juridical systems or customs, in accordance with international human rights standards".

The rights of the indigenous people and preserving their knowledge should be the duty of the state because these communities have retained the social, economic and cultural heritage of the nation. According to United Nations:

"Indigenous peoples are inheritors and practitioners of unique cultures and ways of relating to people and the environment. They have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live. Despite their cultural differences, indigenous peoples from around the world share common problems related to the protection of their rights as distinct peoples".

The focus of the United Nations on preservation and protection of Indigenous Knowledge by the indigenous People is clearly mentioned in Article 31 of the declaration:

"Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions".

The demand of ratification in the articles of UNDRIP is now another concern which needs to get addressed through proper consultations. The aboriginals have demanded several changes ranging from Article 3 to Article 26 of the UNDRIP to assert themselves the notion of self-determination. In Article 8 the indigenous communities have

demanded a change so that there is no forced assimilation. The demand for ratification in articles 18 and 19 of UNDRIP would lead to empowerment of indigenous people by establishing the decision-making bodies and institutions run by indigenous people and communities. The recognition of land rights for use and control by indigenous communities is another demand being raised across the globe which requires amendment in Article 26 of the UNDRIP.

WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)

India is the member state of WIPO. The issues related to protection of Indigenous Knowledge is addressed by the Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of the WIPO. WIPO defines TK as:

"Traditional knowledge (TK) is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity".

This Intergovernmental committee negotiates and finalizes agreements on international legal instruments for the protection of traditional knowledge. The mandate of the WIPO IGC gets published as reports after the sessions of meetings of member states of WIPO. The different nature of issues get addressed for developing the legal instruments to protect the traditional knowledge. Most of the negotiations of the IGC are text-based o reach consensus on issues of dispute. The TKDL undertakes documentation of publicly available Traditional Knowledge that relates to Ayurveda, Unani, Siddha, and Yoga. It is available in five languages and all the documentation is done in digital format. The TKDL which started in 2001 is being implemented by CSIR through an interdisciplinary team but is limited to knowledge on medicinal formulations and Yoga. Major objective of the TKDL is to prevent misappropriation of Indian Traditional Knowledge which matches with the basic policy objectives of the WIPO. The practical guides and scholarships of WIPO have helped local communities in getting aware of intellectual popery rights across the globe. Indigenous Communities have started using IPR as a tool to strategically promote their products and knowledge. It has also helped in misappropriation of traditional knowledge of local communities.

TRADITIONAL KNOWLEDGE DIGITAL LIBRARY (TKDL) OF INDIA

TKDL is currently safeguarding o.26 million medicinal formulations pertaining to Indian Traditional Knowledge. Though India has the largest population of indigenous people in the world, the official efforts to document Traditional Knowledge pertains to biodiversity, traditional medicine and the researches carried out by Tribal Research Institutes of the states. The collaborative projects of Ministry of Ayush and Council of Scientific and Industrial Research (CSIR) has led to a repository called TKDL (Traditional Knowledge Digital Library). It has around 34 million pages of documents in multiple languages on medicinal formulations. This digital database has led to protection of India's Indigenous Knowledge by challenging thousands of patent applications filed by third parties around the world. TKDL has categorized the indigenous resources scientifically:

"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. TKRC has structured and classified the Indian Traditional Medicine System into several thousand subgroups for Ayurveda, Unani, Siddha and Yoga. TKRC enabled incorporation of about 200 sub-groups under A61K 36/00 in International Patent Classification instead of few sub-groups earlier available on medicinal plants under A61K 35/00, thus enhancing the quality of search and examination of priorart with respect to patent applications field in the area of traditional knowledge".

To prevent any possible misuse of India's Traditional Knowledge, the Indian Government has provided the access of the TKDL to major patent offices across the world. This initiative has led to protection of Intellectual Property Rights of the Indigenous People of India. The database created by the TKDL follows international standards which allows the Indian government to file pre-grant oppositions:

"Access of TKDL is available to thirteen Patent Offices (European Patent Office, United State Patent & Trademark Office, Japan Patent Office, United Kingdom Patent Office, Canadian Intellectual Property Office, German Patent Office, Intellectual Property Australia, Indian Patent Office, Chile Patent Office, Intellectual Property Corporation of Malaysia, Rospatent- Intellectual Property Office of Russia, Peru Patent Office and Spanish Patent and Trademark Office), under TKDL Access (Non-disclosure) Agreement. 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. TKDL Access Agreement is unique in nature and has in-built safeguards on Non-disclosure to protect India's interest against any possible misuse".

TECHNOLOGY ADOPTION BY INDIAN TRIBES

Documentation of Traditional Knowledge requires ICT skills and hence technology adoption is a major concern for tribal population in India to safeguard their intellectual property. The special assistance for tribal development under Article 275 (1) of the Constitution has helped in development of tribal population. The tribal research institutes spread across the country help in developing appropriate policies for the overall development of tribes.

The trend of technology adoption among tribal communities reflects a positive correlation with potential benefits. It has been observed in previous studies that level of technology adoption depends on several factors including whether the population is a beneficiary of the technology or a non-beneficiary. The study by the researchers of the department of extension education in Jabalpur, Madhya Pradesh resulted in significant relationship between different sets of variables ranging from attitude to training and the adoption of technologies (Rajan, Khare, Agrawal, 2018).

The determinants of technology adoption by tribal farmers in Madhya Pradesh, India were elaborated in another study by a group of researchers. Through the linear regression of factors affecting the technology adoption the scientists developed an adoption index comprising of ten factors. This study concluded that the level (low, medium, high) of technology adoption depends on- socio-economic factors like- size of the family, family labour availability, size of land holding, literacy, age, off-farm labour-ratio, attitude towards High Yield Variety of Crops, Risk orientation, Credit Orientation, and Income from Crops (Mishra, Upadhyay, & Upadhyay, 2018). These two studies clearly indicate that the Indian Tribes have adopted the technology for their benefits and hence adoption of

technology by the tribes is not a problem in management of indigenous knowledge. The actual problem is the potential benefit of tribes from management of indigenous knowledge.

Geographical Information System (GIS) is being used by tribal communities across the globe to map the land they own and claiming the land rights. Internet and software applications are being used by Indian tribes for claiming the benefits of the schemes of the state and central government. Tribal communities in India though have different opinion on how the indigenous knowledge could be documented, but majority of the communities are in the favour of documenting it so that they can claim the ownership of the knowledge and protect it from improper commercial use. The major concerns of tribal communities with regard to indigenous knowledge are-ownership, preservation, respect and promotion. On the other hand government needs to document the indigenous knowledge for two major purposes- development of appropriate policies and efficient management of resources owned by tribal communities for sustainable economic development. Here comes the clauses of restricted and unrestricted use and also the intellectual property rights (IPR). To address this issue several policy frameworks and models have evolved over time in which major contributors are World Intellectual Property Organization (WIPO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

SUSTAINABLE MANAGEMENT OF INDIGENOUS KNOWLEDGE

All across the globe sustainability of the resources is a major area of concern. If Indigenous Knowledge is considered as one of the intellectual resources which can help in addressing the issues of climate and sustainable development, definitely there is a need of sustainable management of this vital resource. The capitalization of knowledge through IPRs will determine the power of nations in coming decades and hence developed countries have strategically prepared a planned of action for patenting the knowledge. India being one of the oldest civilizations has plenty of Indigenous Knowledge on biodiversity, medicinal formulations which is still not recorded and documented.

A collaborative Knowledge System is the need of time which is capable of integrating the cultural values of indigenous people for socio-economic development. The researchers have observed that traits of indigenous cultures are important ingredients for sustainable development plans and therefore from the development perspective indigenous knowledge is an important factor in decision-making activities. Indigenous Knowledge has been considered important by World Bank and other development organizations across the globe. In the year 1998 World Bank started Indigenous Knowledge for Development Program to develop partnerships and collaborations with NGOs working with indigenous people to raise awareness on using IK for development (Mohan, 2001). These collaborations were aimed at facilitating the use of IK in banking sector and for the development of local institutions through capacity building. Such capacity building would definitely enhance the sustainable management of indigenous knowledge.

SOCIAL JUSTICE IN INDIGENOUS KNOWLEDGE MANAGEMENT

In a recent study Funk and Guthadjaka (2020) used the Social Justice Theory framework to explain the process by which the indigenous knowledge is managed on open and digital platforms. The authors argue that since most of the digital platforms of knowledge management are based on western epistemology, this way of knowledge

management has certain limitations like oppression and delusion. This study is relevant for making an assessment of the evolution in the Indigenous Knowledge Management because in most of the models and frameworks social justice has been ignored. The contextual use of Indigenous Knowledge in the modern system of knowledge management requires a broad understanding of the sovereign processes of knowledge development which hardly fits the new system of content development and use. The communities owning the indigenous knowledge ultimately lack the right of self-determination in this system. Therefore from the knowledge authority perspective the digital archives of the indigenous knowledge should be based on social justice theory framework comprising of cultural, economic and political dimensions where the injustices like misdistribution, misrecognition, and misrepresentation may be checked. The affirmative and transformative actions are required to ensure that every use of Indigenous Knowledge leads to respect, recognition and redistribution of the IK.

CLOUD-BASED SOLUTIONS FOR INDIGENOUS KNOWLEDGE MANAGEMENT

Social Justice, Intellectual Property Rights and protecting cultural traits are some concerns which need to get addressed before any plan of digitization of Indigenous Knowledge. The scholarships on digital inclusion have stressed on the need of policies not only acceptable by Indigenous people but also to their ways of life because sustainability is the major concern behind Indigenous Knowledge Management. Any development solution intended to support the indigenous communities should not be assimilative where the technology dominates the cultures. Intellectual Property Rights and Legal Frameworks should guarantee the sovereignty of Indigenous Knowledge because digitization is not creation of knowledge but a tool to harness the existing knowledge in smartest possible way.

The western way of knowledge management is dominant and hence any effort to archive or digitize the Indigenous Knowledge would lead to delusions. The discriminatory approach of assessing the Indigenous knowledge on such platforms leads to dilution of the cultural values and identities of the communities. The cloud-based archives of Indigenous Knowledge should be available for reference and not for manipulation and drawing any conclusion comparing sciences or western knowledge. The lack of contextual knowledge leads to delusions that Indigenous Knowledge is of no use. This practice actually defies the value of Indigenous Knowledge by just analysing it as ordinary digital content.

CONCLUSION

The study concludes that the cloud-based archives of indigenous knowledge should aim at sustaining the identities of communities and their valuable knowledge. The digital technologies or tools should help the tribal communities sustain in their own knowledge ecosystem and give them a feeling of respect for what they own. Majority of tribal communities perceive that their knowledge relates to their identity and hence it should not get manipulated for commercial purposes. The ownership of any cloud-based database should therefore remain with the communities so that they can use it and keep creating new knowledge in their own way. Any Indigenous Knowledge Management should be base on the social justice theory framework so that problem of knowledge authority, intellectual property rights is aptly addressed. This is possible only when the indigenous communities are at the centre of knowledge management and the digital archives of the Indigenous Knowledge are owned and managed by the communities owning it. With such interventions and policy frameworks even the UNDRIP and WIPO will be able to ensure

respect and recognition of Indigenous Knowledge. The Indian TKDL which has so far primarily focused on medicinal formulations should also include the indigenous knowledge on farming and fisheries, forestry and sustainable ecosystem, astrology and healing practices of tribal communities. The works of the tribal research institutes should be popularised so that more and more people come to know about the value of indigenous knowledge.

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