

Protection of Traditional Knowledge (TK) and Traditional Cultural Expressions (TCEs) of South Asia in Digital Libraries and Museums

Kamani Perera¹

Introduction

The defining characteristics of TK and TCEs are that they belong to particular communities and have been passed on from generation to generation. The World Intellectual Property Organization (WIPO) defines 'traditional knowledge' (TK) as traditional-based literary, artistic or scientific works, performances, invention, information and all other traditional based innovations and creations resulting from intellectual activity in all fields. TK includes medicinal knowledge, ecological knowledge, agricultural knowledge and scientific knowledge. TCEs are generally defined as handed down from one generation to another, either orally or by imitation; reflecting a community's cultural and social identity; consisting of characteristic elements of a community's heritage; made by "authors unknown" and/or by communities and/or by individuals communally recognized as having the right, responsibility or permission to do so; often created for spiritual and religious purposes; and, constantly evolving, developing and being recreated within the community (Torsen and Anderson, 2010).

TK has helped to develop the agricultural crop varieties and traditional herbal medicines and techniques have helped for the wellbeing of human livelihoods. This has been clearly stated by Swiderska (2006) and according to Swiderska that the conservation of biodiversity depends on the preservation and protection of traditional knowledge relating to biodiversity. Swiderska further describes that this traditional knowledge (TK) is vital for life in often-hostile natural environments—for health, food security and agriculture. It includes knowledge about the uses, properties and sustainable management of diverse biological resources—traditional crops, wild foods, medicinal plants etc. It also forms the basis of cultural identity, contributing to social cohesion and thereby reducing vulnerability and poverty.

Traditional Knowledge in Sri Lanka

Traditional Medicinal Knowledge

There are two types of traditional medicinal knowledge in Sri Lanka and those are in the formalised systems such as Ayurveda, Siddha, and Unani, while non-formalised systems, include Desiya Chikitsa (National Treatment) and those medicinal knowledge have been protected as family secrets and passed from one generation to another. According to Kumar (2000) that there are very little TKs available in a non-formalised systems as there are few groups of isolated communities in Sri Lanka. These communities are namely the Veddahs, the Rodiyas and the Gypsies and they have assimilated into the larger community. Those non-formalised traditional

¹ Librarian, Regional Centre for Strategic Studies, Sri Lanka

medicinal systems are used for eye diseases, fractures and dislocations, burns etc. As a result of the availability of free health services and free education facilities to communities in all areas of the island these communities move out of their traditional lifestyles eventually. Therefore, it is very important to preserve these non-formalised systems of traditional medicinal knowledge by using novel technologies. It helps to spread the traditional know how to next generation and also to do further research. This has been clearly expressed by Dharmasena (n.d) and according to Dharmasena that traditional knowledge systems of indigenous people, while highly variable in their content and style, nonetheless all have a great deal to offer in sustaining life on the planet. Most traditional knowledge systems assume that people are part of the environment, not that they own their surroundings, so they consider themselves as true guardians. The wisdom derived from this philosophy can be used to advantage when planning for sustainability.

Traditional Agricultural Knowledge

Traditional agricultural knowledge has helped our ancestors to keep the country agriculturally sustainable. Dharmasena (n.d) expresses that indigenous knowledge is a precious national resource that can facilitate agricultural production in cost-effective and sustainable ways. Hence a blend of approaches and methods of science and technology and from traditional knowledge will open avenues towards sustainable agricultural development in Sri Lanka. Dharmasena further describes that the farming system, which includes *chena*, paddy and home garden cultivation has evolved with interaction of man with the environment- and developed in harmony with natural ecosystems. Their experience and observations on rainfall pattern, wind, temperature, humidity and soil behaviours have used to adjust their cultivation activities. When they found that some of the tragedies they faced during the farming as reasons beyond their control, they appealed the support from the religion and spiritual and cosmic influences. The most important fact, they realized on top of others is that, without giving due respect to the resources using for farming, they could not expect the sustainability of their food sources. As described by Dharmasena it is clear our traditional belief systems and how our ancestors were connected to the environment and to the universe. Mendis (2002) adds that the ancient water soil conservation, ecosystems of Sri Lanka are a classic example of man's active adaptation to nature. They include river diversion systems and storage systems themselves, consisting of small, medium and large reservoirs. These systems had been constructed over a long period of time, beginning in about the mid first millennium B.C. This type of traditional knowledge, cultural expressions are invaluable for future research and development. At this juncture, it is our duty to document this knowledge and preserve it in libraries and museums where we can access it digitally without any geographical barrier. Dharmasena states that indigenous knowledge is predominantly tacit or embedded in the practices and experiences. It is commonly exchanged through personal communication and demonstration: From master to apprentice, from parents to children, from neighbour to neighbour, etc. Unless indigenous knowledge is properly documented, analysed and disseminated, there is a risk that within one generation, knowledge could be lost forever. Databases and resource centres would help to exchange, indigenous knowledge from one community to another and promote integration of indigenous knowledge into the development process. Novel information communication technologies (ICTs) facilitate to record the traditional cultural expressions, tacit knowledge and preserve it in the library and museum websites and can be accessed through social media tools.

Exploitation of TK and TCEs

In the traditional systems, TK and TCEs were protected by a system of customs and taboos, which ensured the preservation, and proper utilization of resources. Currently, this knowledge is being exploited by 3rd parties for use in pharmaceutical products, therapy, building arts and crafts, music, design and even works of architecture. In brief, TK and TCEs are used in the exploitation of generic resources. There have been many cases of use of TK by 3rd parties for commercial gain without any benefits to the custodians of the knowledge. In certain instances, this knowledge is used contrary to the beliefs and practices of the community who are custodians of the same. It is important to protect the moral integrity of the community.

There are many instances where the TK and TCEs are sacred and require protection against misuse and abuse. Misappropriations of TK, TCEs, and bio piracy of genetic resources are the issues of great concern for all the South Asian countries. The main purpose of the protection is a guard against misappropriation and misuse by 3rd parties of TK and TCEs preservation of genetic resources and cultural goods as well as protection against unfair competition. The protection also ensures proper access and benefit sharing from the use of TK and TCEs.

Protection of TK and TCEs

There should be a clear law and policies to protect traditional knowledge, including that related to genetic resources to safeguard against misappropriation and misuse. It is important to note that the protection offered under the copyright act. Other forms of protection that may be accorded TK and TCEs within the existing intellectual property system include the protection using trademarks, geographical indications, protection against unfair competition and trade secrets.

Another way of guarding against misappropriation is to ensure that the TK is well documented in digital library or museum. The digital documentation of such information provided an avenue for dissemination as well as cross checking any applications that may be based on TK. Digital library relied on already documented knowledge. The protection of TK, however distinguishable from the efforts that have been made to promote and safeguard TK. Promoting and safeguarding TK are mostly relevant when aspects of TK such as photographs, sound recordings, films and manuscripts are documented and preserved in libraries and museums. In this research, we can identify the role of libraries and museums in the documentation of TK. It helps to identify the intellectual property (IP) issues in and technical implications of the establishment of digital libraries and museums and to explore the role and functions of the digital library/museum within the international IP protection system. Eventually, the protection of TK and TCEs can help in the development of the agricultural sector, preservation of genetic resources as well as biodiversity, the health sector as well as the creative industries for sustainable economic growth in South Asian countries.

Swiderska (2006) describes that indigenous peoples and rural communities have developed an intimate knowledge of the use and functioning of biological and natural resources over centuries of close dependence on these resources. This traditional knowledge (TK) is

vital for life in often hostile natural environments—for health, food security and agriculture. It includes knowledge about the uses, properties and sustainable management of diverse biological resources—traditional crops, wild foods, medicinal plants etc. It also forms the basis of cultural identity, contributing to social cohesion and thereby reducing vulnerability and poverty. Swiderska has clearly described how our ancestors have developed and shared their knowledge for the well-being of their livelihood by overcoming the poverty. Thus, it is crucial to preserve such knowledge and make use it for further improvement of their medicinal, agricultural and cultural activities. Swiderska further adds that traditional farmers have domesticated most of the world's food crops and are continually experimenting to improve their crops—millions of farmers' varieties are the product and embodiment of traditional knowledge. Traditional production and innovation systems provide a wealth of resources and knowledge not only for communities, but for the food, agriculture and health needs of the world as a whole. The existing literature shows many examples how our ancestors use their knowledge to protect their agricultural crops.

Role of Digital Libraries and Museums

Digital libraries and museums are playing a major role in protecting and safeguarding of TK and TCEs. With the emergence of new communication technology libraries and museums have embraced social media tools to their organizations. These tools have helped them to access, preserve, reuse and promotion of TK and TCEs in numerous ways. Social media tools such as YouTube, Facebook Groups, and Instagram etc. have helped to preserve and share TK and TCEs by providing opportunities to access the knowledge for research and development in major ways. On the other hand libraries and museums should keep close contacts with the communities by way of conducting workshops, exhibitions to educate the community on the importance of safeguarding TK and TCEs. Torsen and Anderson (2010) describe that just as communities are asserting themselves as legitimate rights holders who should be actively in control of how they are represented, several cultural institutions worldwide sees themselves increasingly not as owners but as custodians of their collections. Through this shift, cultural institutions seek more direct relationships with indigenous and traditional communities, actively engaging with indigenous and traditional people with expertise, to foster new cross-cultural partnerships that could enrich cultural conservation work and benefit indigenous and traditional communities.

Conclusion

In this Internet era, digital libraries and museums are playing a dramatic role for the protection of TK and TCEs for present and future use. At this juncture they are acting as custodians of TK and TCEs. Torsen and Anderson (2010) express that to address the gaps in current IP law in relation to TCEs, improved processes for identifying problems in the management of TCEs by museums, libraries and archives must be developed. This includes the development of mutually-beneficial strategies and relationships between cultural institutions and indigenous and traditional communities. As expressed by them, it is important to maintain close connections among libraries/museums and their traditional communities. Torsen and Anderson further describe that TCEs are both cultural and economic assets of the peoples and communities who

are their creators, practitioners and custodians. TCEs can be economic resources that concretely contribute to providing livelihoods and easing poverty and socioeconomic disadvantage for these communities, for example, through craft marketing. Indigenous and traditional communities are generally among the poorest and most disadvantaged in the world – concern for properly dealing with TCEs is not simply an ethical issue. Thus, it is our collective responsibility to protect TK and TCEs in Libraries/Museums and make awareness of the importance of protecting those dying heritages for the benefit of present and future generations.

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