

HERITAGE AT RISK: DIGITAL PRESERVATION OF TRADITIONAL CULTURAL HERITAGE (TCH) IN SRI LANKA

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ABSTRACT:

Traditional cultural heritage (TCH) can be defined as diverse type of intangible and tangible heritage related to our ancestors in the ancient time such as cultures, beliefs, practices, ceremonies, indigenous knowledge etc. etc. Novel methods are being used to preserve the dying traditional knowledge in the field of medicine, agriculture, arts and sciences. Moreover, this can be treated as a part of the community and it belongs to the community. Furthermore, it is used in an informal way and practiced as a living heritage. Most of the time TCH has been transmitted orally from one person to another person or to a group of persons. This uniqueness helps to build cultural identity of TCH without undermining its cultural value. Thus, it is important to digitally preserve traditional cultural heritage with the help of novel technologies for the benefit of the present and future generations. With the emergence of new information technologies libraries, archives, museums and information centers have taken action to digitally preserve such priceless intangible and tangible heritage by way of collecting, organizing, managing and providing access to present and future generations as these heritages are at high risk. However, digital preservation is challenging task as it needs funds, trained staff, and the technology. Further, in this electronic era. there are various types of technologies that support for preservation of TCH.

1. INTRODUCTION

Sri Lanka is a country with a rich cultural heritage that dates back thousands of years. The island nation boasts a diverse range of traditional practices, arts, crafts, and architectural monuments that reflect the country's history and identity. Preserving this cultural heritage is vital to maintaining Sri Lanka's unique character and to passing it on to future generations. Preservation of traditional cultural heritage in Sri Lanka involves a range of methodologies, including documentation, education and awareness, conservation and restoration, community participation, government policies and regulations, and sustainable tourism. By employing these methodologies, Sri Lanka can effectively protect its cultural heritage from damage, destruction, and neglect. Preservation of traditional cultural heritage is not only important for its cultural value but also for its economic and social benefits. Tourism is a significant industry in Sri Lanka, and preserving cultural heritage can attract visitors who are interested in experiencing and learning about the country's unique culture. Overall, preserving traditional cultural heritage in Sri Lanka is a critical task that requires collective efforts from the government, local communities, and visitors. By working together, we can ensure that Sri Lanka's cultural heritage remains a vital part of the country's identity for generations to come.

There are many concepts involved in the term traditional cultural heritage. It can be expressed as indigenous knowledge (IK), traditional knowledge or local knowledge which refers to age-old traditions and practices of regions, and also indigenous knowledge which is expressed through stories, legends, folklore, rituals, songs, and even rules and regulations. TCH in Sri Lanka can be elaborated as Traditional Administrative Systems, Traditional Social Systems (Caste Systems), Irrigation Systems, Traditional Legal System, Architecture including Traditional Village

Planning, Art, Religions- Buddhism, Hinduism, Islam, Literature, and Rituals, etc. (De Silva, 2013). According to Mugabe (1999) it can be defined as the information that is given by the people to the community, based on their experience and familiarization of the local culture and environment, which has developed over years, and is continuing to develop and change. It is the whole of all knowledge and practices, whether explicit or implicit, which are used in the management of socio-economic and ecological sides of life (Mugabe, 1999). Similarly, WIPO (2015) described that TCH is a living body of knowledge that is transmitted from generation to generation within a community, which creates cultural or spiritual identity. Moreover, it can be identified as knowledge, know-how, skills, innovations or practices; that are passed between generations and indigenous communities and is considered as its guardian or custodian. Johnson (1992) also added that TCH is tacit in nature and hard to access and is communicated orally. It can be learned through observation or by practicing, has a life force, and is collective and spiritual. In this context, it is crystal clear that TCH cannot be survive standalone and should be protected as collective effort.

2. NATURE OF THE TRADITIONAL CULTURAL HERITAGE (TCH)

The uniqueness of TCH is not because it emerged during ancient times but because of the way in which it is accessed and used. Thus, this knowledge is related with the environment and it builds cultural uniqueness. TCH belongs to the local community. It is transmitted from generation to generation and is continuously developing with the changing environment. In this context, the nature of TCH has been defined as "...unique traditional local knowledge existing within and developed around the specific conditions of women and men to a particular geographic area" (Greiner,

1998). Moreover, it is a known fact that the majority of TCH has emerged as tacit knowledge and hence, it is not easy to transmit such knowledge from one generation to another. For example, it is difficult for the older generation to transfer this valuable knowledge to the younger generation if the latter are not living with them. Therefore, it is important to practice the TCH as a living heritage and to preserve it using novel technologies. Furthermore, TCH differs from geographical location to location. It is developed in an informal way and transferred by word of mouth. This has been clearly stated by Greiner (1998). Moreover, the TCH that was generated for many centuries has supported the local communities to survive and be sustainable within their environments (Guchteneire, Krukkert and Liebenstein, 1999; Mehta, Alter, Semali, and Maretzki, 2013). The distinctive features of TCH have been described by Wendland (2006) and these are mainly that it is transmitted orally or by imitation from one generation to another; it replicates the cultural and social identity of the particular community; it builds the uniqueness of the community; and it belongs to the creator or the community or the individual; it acts as a vehicle for religious and cultural expressions; and it always emerges from the community. In this context, it can be seen that TCH is an integral part of everyday life and it lives within particular communities and is deep-rooted in the capabilities and beliefs of those communities.

TCH was developed and preserved centuries ago by the local communities and indigenous people to enable their survival on earth. TCH is an integral part of the community and is not separated from the community's culture. In this context, TCH is collective in nature and can be treated as a possession of the whole community. In other words, it is not the property of a single individual within the community. Also, it is very rarely that TCH is expressed in the written form or any formal way. In this context, it is transmitted orally through practice as a living heritage. For example, it is transmitted orally by elders to only a few people within the community. However, this unique nature of TCH does not decrease its value. Moreover, it is very important to integrate TCH with modern knowledge as it plays a significant role in the designing, handling and decision making, of the sustainable development projects in developing countries. This has been realized by most of the countries in the world and therefore, action has been taken to preserve and protect the TCH for the benefit of the new generations. As a result, community centers and knowledge centers have emerged in every corner of the world. There are some significant features of TCH that are known to have been passed down from generation to generation. Most of the time it is transferred orally from person to person, treated as a gift of God and not as some one's property, the original creator is not easily recognizable, it can be learned through constant observation, experience and practice, it is an inseparable part of the community and is generally linked with the biological resources (Gervais, 2005).

3. TRADITIONAL CULTURAL HERITAGE (TCH) IN SRI LANKA

Sri Lanka has a rich culture and documented history of more than 2500 years. Countries that have a long history in the world have realized the importance of protection and preservation of TCH and communities in such countries protect and preserve their own TCH for the benefit of future generations. Most of the time they practice it as a living heritage. Sri Lanka has used different concepts such as

religion, medicine, agriculture, and culture to preserve its TCH and the methods of preservation have differed from time to time and place to place according to people's race, caste, religion, beliefs and culture (Wickramanayake, 2012). Living heritage can be treated as one way of preserving TCH. Traditional Kandyan dances are still performed in Sri Lanka as a living heritage, at special religious festivals, wedding ceremonies, and cultural events etc. In this context, the systematic approach adopted by Sri Lanka to preserve its TCH is clear. Moreover, according to the existing literature it is evident that many terms have been used to describe the TCH. These are namely, local knowledge (LK), traditional ecological knowledge (TEK), traditional ecological knowledge and management systems (TEKMS), indigenous knowledge (IK), community knowledge (CK), rural village peoples' knowledge and farmers' knowledge (FK) (Rahman, 2000).

There are many TCH systems available in Sri Lanka and recognition of these knowledge systems help to promote cultural diversity. Existing systems of traditional knowledge include, Traditional Administrative Systems, Traditional Social Systems (Caste Systems), Irrigation Systems, Traditional Legal System, Architecture including Traditional Village Planning, Art, Religions- Buddhism, Hinduism, Islam, Literature, Rituals, etc. Traditional Medical practices such as Homeopathy, Acupuncture (De Silva, 2013).

The traditional cultural heritage of Sri Lanka is diverse and multifaceted, encompassing a wide range of practices, customs, arts, and crafts that have been passed down through generations. Here are some examples of the nature of the traditional cultural heritage in Sri Lanka:

1. **Traditional Arts and Crafts:** Sri Lanka is renowned for its traditional arts and crafts, including pottery, weaving, batik, mask making, wood carving, and lace making. These crafts are often deeply intertwined with local customs and traditions and have been preserved for centuries. Sri Lankan handicrafts are highly valued for their intricate designs and excellent craftsmanship, and they reflect the country's rich cultural heritage.
2. **Traditional Festivals:** Sri Lanka has a plethora of traditional festivals that celebrate different aspects of the country's culture, religion, and history. Some of the most famous festivals include the Sinhala and Tamil New Year, Vesak, Esala Perahera, Kandy Perahera, and Nallur Kovil. These festivals are marked by colorful processions, dances, music, and rituals that showcase the country's unique cultural heritage.
3. **Traditional Medicine:** Traditional medicine has been practiced in Sri Lanka for centuries and is an essential part of the country's cultural heritage. Ayurveda is the most famous form of traditional medicine in Sri Lanka, and it involves the use of natural remedies to promote holistic health and well-being. Many Ayurvedic treatments use herbs, oils, and other natural ingredients that have been passed down through generations.
4. **Traditional Architecture:** Sri Lanka is home to a range of architectural monuments that reflect the country's rich cultural heritage. Some of the most famous examples include the Sigiriya rock fortress, the ancient city of Anuradhapura, and the Temple of the Tooth in Kandy. These structures are not

only significant cultural landmarks but also serve as a testament to the country's architectural ingenuity and engineering prowess.

3.1 Indigenous Community in Sri Lanka

Vedda people (Figure 1) can be identified as a typical example of the indigenous people living in Sri Lanka. Indigenous is often seen to exist in a local context, anchored to a particular social group in a particular setting at a particular time (Agrawal, 1995). As described by Nuffic and UNESCO (2002) 'Indigenous knowledge' is embedded in culture and is unique to a given location or society; also, IK is the knowledge belonging to a specific ethnic group. Further they have pointed out that "Indigenous knowledge is the local knowledge that is unique to a given culture or society. It is the basis for local-level decision-making in agriculture, health care, food preparation, education, natural resource management, and a host of other activities in rural communities".

Vedda people used the bow and arrow as their main weapon (Figure 2). In addition they used nets for catching birds such as jungle fowl (*Gallus lafayetii*), pea fowl (*Pavo cristatus*), and parrots (*Loriculus beryllinus*), etc. (Seligmann and Seligmann, 1969). Veddas also used a traditional method for fishing at a stream, a pool or small lake (*weva*), which is not practiced currently. According to this method, the Veddas added leaves of the following plants to the water, in order to poison the fish.

1. timbiri (*Diospyros embropteris*),
2. kala-vel (*Derris scandens*), (Figure 3)
3. kukuru- mahan (*Randia dumetorum*) and
4. pusvel (*Entada scandens*).

The poisoned fish were easily collected after this. However, this traditional method has dramatically changed with time and the fishing nets have become the most common method of fishing as it gives a better harvest. According to the existing literature it is evident that the Vedda community has intermingled with the Sinhalese and Tamil communities and as a result their traditional skills are dying with their urbanization. Therefore, it is crucial to preserve this dying TCH using modern technologies such as You Tube, and the Internet, for the benefit of the present and future generations. Further, it will help to create awareness about the TCH and also to make use of this tacit knowledge for future development.

4. METHODS USED TO CAPTURE THE TRADITIONAL CULTURAL HERITAGE (TCH) IN SRI LANKA

Preserving traditional cultural heritage is important to maintain a country's identity and history. Sri Lanka, with its rich cultural heritage, has many traditional practices, arts, crafts, and architectural monuments that need to be protected and preserved. Here are some methodologies that can be employed to preserve traditional cultural heritage in Sri Lanka:

1. Documentation: Documentation of cultural heritage is crucial for preservation. It involves recording, cataloging, and creating an inventory of tangible and intangible cultural heritage elements. This can be done through photographs, videos, written records, and audio recordings.

2. Education and Awareness: Education and awareness are critical to preserving cultural heritage. This can be achieved by educating the local community and visitors about the importance of cultural heritage and the need to preserve it. This can be done through workshops, seminars, and educational programs.
3. Conservation and Restoration: Conservation and restoration are vital methodologies for preserving cultural heritage. This involves repairing and restoring damaged or deteriorated cultural heritage elements, including monuments, artifacts, and artwork.
4. Community Participation: Community participation is an essential factor in preserving cultural heritage. This can be achieved by involving the local community in the preservation process. Local communities can provide valuable information about cultural practices, traditions, and customs, which can aid in preservation efforts.
5. Government Policies and Regulations: Government policies and regulations can play a crucial role in preserving cultural heritage. This can be achieved by enacting laws and regulations to protect cultural heritage, including the preservation of monuments, artifacts, and artwork.
6. Sustainable Tourism: Sustainable tourism can help to preserve cultural heritage by promoting responsible tourism practices that respect local customs and traditions. This can be achieved by developing tourism programs that promote cultural heritage preservation.

By employing these methodologies, Sri Lanka can effectively preserve its traditional cultural heritage for future generations to enjoy and appreciate.

Basically, two methods, the print and electronic media are being used in Sri Lanka to document the TCH. Wickramanayake (2012) pointed out that there should be a national institution which has a thorough understanding and clear objectives about overall TCH in the country; and also that the organization should have a clear vision. Only then, it will be possible to capture, preserve, manage and disseminate or share such knowledge with the local community as well as with the international community.

Traditional Cultural Heritage can be captured through interviews, observations, communications, and recordings. It can be documented through writing down, taking notes, photographing, digitizing and videotaping. Documented TCH can be published in printed media or presented in digital media as You Tube presentation, Blog, E-portal, or website etc. However, preserving TCH is a challenging task. It is a well-known fact TCH or IK of a community is in the individual's head and it is called tacit knowledge. This tacit knowledge has been transferred from generation to generation by word of mouth. Wickramanayake (2012) has stated that in Sri Lanka there are practices of some customs, taboos, rituals and religious rites, and the usage of *kems* with the combination of astrology. In addition, the ancestors of Sri Lanka have taken a little effort to record the local knowledge (LK) in ola leaves (palm, Figure 4), stone pillars, or in copper or gold plates. Ola leaves collections are preserved in national archives, museums and the libraries of Sri Lanka.

5. DEVELOPMENT OF TRADITIONAL CULTURAL HERITAGE (TCH) IN SRI LANKA

Sri Lanka has several historical sites that showcase the country's rich cultural heritage, including Sigiriya, Anuradhapura, and Polonnaruwa. The government of Sri Lanka has taken steps to preserve and restore these sites, such as the restoration of the Jethawanaramaya Stupa in Anuradhapura. These efforts help to ensure that these sites remain accessible for visitors and future generations to appreciate.

Sri Lanka's traditional crafts are an important part of the country's cultural heritage, and efforts have been made to promote and preserve them. The Sri Lanka Handicrafts Board is an organization that promotes Sri Lanka's handicrafts and provides training and support to artisans. The government has also established craft villages that showcase traditional crafts to tourists and provide an income for local artisans.

Sri Lanka has a long tradition of traditional medicine, and efforts have been made to revive and promote this practice. The government has established an Ayurveda hospital in Colombo, and traditional medicine is increasingly being integrated into the country's healthcare system. There is also a growing interest in traditional medicine among tourists, and several Ayurveda resorts have been established to cater to this demand.

Sri Lanka has a rich tradition of cultural festivals, and efforts have been made to promote and develop these events. The Kandy Esala Perahera is a famous cultural festival that attracts thousands of tourists each year. The government has also established the Colombo International Theatre Festival, which brings together international and local theater groups to promote cultural exchange.

Education and awareness are essential for the development of traditional cultural heritage in Sri Lanka. The Ministry of Education has incorporated traditional arts and crafts, music, and dance into the school curriculum to promote the country's cultural heritage. There are also several museums and cultural centers in Sri Lanka that provide educational opportunities for visitors to learn about the country's history and culture.

There are many internal and external influences which caused the development of TCH in Sri Lanka. One of the main influences is Sri Lanka's strategic location in the Indian Ocean on the silk route connecting the East and the West. This connection helped immensely towards the development of TCH in Sri Lanka. On one hand, India being a neighboring country had a major influence on Sri Lanka's civilization and knowledge. On the other hand, Sri Lanka, being country rich in bio-diversity and diverse communities were the other forces that contributed towards the development of varied forms of traditional knowledge. Further, being a medium size island, Sri Lanka surrounded by the Indian Ocean was a force that enabled the country to retain the rich heritage of traditional knowledge as well as its own identity (De Silva, 2013).

6. IMPORTANCE OF TRADITIONAL CULTURAL HERITAGE (TCH) IN DEVELOPING COUNTRIES

Traditional cultural heritage can be a significant driver of economic growth in developing countries. Cultural tourism, for example, can provide jobs for local people and generate revenue for small businesses. The preservation and promotion of traditional crafts can also create employment opportunities for local artisans and contribute to the local economy.

Traditional cultural heritage can help to strengthen social cohesion by fostering a sense of community and shared identity. Cultural events and festivals can bring people together and promote cross-cultural understanding. Traditional practices and beliefs can also contribute to social cohesion by providing a shared sense of values and norms.

TCH plays a significant role in important areas of human life such as health, agriculture and food security etc. Moreover, it is a source of artistic expressions, including musical works and handicrafts and has become an essential component of the daily life of millions of people in developing countries. In addition, traditional herbal medicine helps in numerous ways to maintain the good health practices of the majority of rural communities in developing countries since access to modern medicine is limited to them, owing to their cultural and economic conditions. In this context, TCH has become a valuable source of knowledge to rural communities and in the same vein it helps to provide solutions for their problems in blending with modern scientific and technological knowledge. As a culturally rich country in Asia and also as a country which has a written history of more than two and half millennia, Sri Lanka has thoroughly understood the importance of preserving its TCH.

7. PROTECTION OF TRADITIONAL CULTURAL HERITAGE (TCH) AT INTERNATIONAL LEVEL

TCH has become an integral part of the cultural possessions of indigenous peoples by way of providing massive cultural and economic promises for their day to day lives. The position of TCH in current society has been highlighted with an increased recognition of its role, among others, in modern innovation, biodiversity conservation, the sustenance and livelihoods of indigenous peoples, and even national prosperity (Bubela and Gold, 2012). Moreover, its protection has not come close to the end, but rather is followed as a means to an end. Therefore, it is important to take action to motivate national and international efforts to protect TCH. At this juncture, beyond the question of whether or not TCH should be protected, questions rather relating to the what, how, where, and why TCH protection have led the discussions on the protection of TCH. Several countries, especially developing countries, have taken on this important challenge of implementing regulations governing the protection of TCH within their borders (Moody, 2016). Efforts to protect TCH have also entered the domain of international law. Such efforts are presently being pursued in international fora, such as, the World Intellectual Property Organization (WIPO), the World Trade Organization (WTO), Convention on Biological Diversity (CBD), the World Health Organization (WHO), the Food and Agriculture Organization (FAO), to name a few (Verma, 2004).

There are instances when TCH is used in a commercial way for agriculture, the pharmaceutical industry and creative industries. Unfortunately, it is evident that misappropriations of TCH are carried out by way of harming its originators. As an example, indigenous folk songs could be modified and copyrighted without any acknowledgement to their original creators and also without sharing any benefits that emerge due to such modifications, with the indigenous community. In the same vein, inventions that result from genetic resources (GR) could be patented by third parties without equitable sharing of the benefits with its originators. In this manner, it is crystal clear that TCH is being misused by third parties without credit being given to its originators. Therefore, it is very important to protect TCH at the national, regional and international levels. At the national level there are specific laws which protect the indigenous peoples' collective knowledge that is related to the biodiversity such as the law of Peru and TCH act in Kenya. At the regional level, a law has been enacted in 2010 on ARIPO Swakopmund Protocol on the Protection of Traditional Knowledge and Traditional Cultural Expressions. In this context, it can be seen that there are laws at national and regional levels to protect TCH against misappropriation by third parties for commercial purposes. In the same vein, it facilitates indigenous/local communities to have control over their traditional knowledge. However, national and regional laws are limited to their geographical boundaries and there is no control beyond that. Thus, it has been a long felt need to protect TCH at the international level and as a result of that the Paris Convention, Berne Convention, WIPO (World Intellectual Property Organization) Copyright and Marrakesh Treaty were declared.

Preservation or safeguarding is used for the identification, documentation, transmission, revitalization and promotion of knowledge and cultural heritage and it is different from protection as it ensures maintenance or viability of TCH. In brief, preservation/safeguard assures that TCH does not disappear, is not lost or degraded, and also ensures that it is maintained and promoted. In this context, preservation or safeguarding and protection denote different objectives but help to promote each other. Preservation of TCH can be done through digitization, which makes it more accessible and vulnerable to users. Thus, care should be taken to prevent misappropriation or illegitimate use of TCH after preservation. At this juncture, protection can be made through intellectual property (IP) laws. Correa (2001) stated that the preservation of TCH is not only a key component of the right to self-identification and a condition for the continuous existence of indigenous and traditional peoples; it is also a central element of the cultural heritage of humanity. It is estimated that the disaster moving upon on cultures and languages is far greater than the biodiversity crisis. Correa further described that recognition of a particular culture would be an advantage to the community that holds the knowledge as it raises its profile. This will make the learning and development of such knowledge a more attractive prospect for the younger members of such communities, thus preserving its existence and continuing its traditional lifestyles and cultures. On the other hand, making use of TCH by third parties acts as an incentive for the community members to respect their knowledge and keep it practiced from generation to generation.

7.1 Protection of Oral Tradition

The language of a community comes out orally and death of the language leads to the eternal loss of oral tradition. If the oral tradition is performed in public, it will help to safeguard the language. Oral tradition can be easily transmitted from one person to another person or group of persons. However, it can be threatened by commercial industrialization, environmental changes, and even the Internet, which could damage oral tradition. There are instances where traditional oral expressions are recited by CDs or digital music files. In this manner, there will be a mass alteration in the traditional forms of oral expressions. To protect the oral tradition from such threats, it is important to make use of the language regularly as a living heritage. Moreover, there should be opportunities for the older people to pass their stories on to the younger generation. This could be done at cultural festivals. Young people can perform cultural rituals with the older people and thereby get a chance to practice the traditional knowledge. Such performances can be recorded using novel technologies and can be shared through YouTube channels, thereby giving them wide publicity, while preserving them digitally.

The Sri Lanka Archive of Oral History is a project undertaken by the University of Peradeniya to preserve the oral history of the country. The archive collects and preserves oral histories related to politics, society, culture, and other aspects of Sri Lankan life. The Department of Cultural Affairs of Sri Lanka has been involved in documenting folk traditions and oral literature in the country. The department has published several books on folklore and has also produced audio and video recordings of folk songs, stories, and other forms of oral tradition. Several community-based organizations in Sri Lanka are also involved in documenting and preserving oral tradition. For example, the Lanka Heritage Foundation has been working with local communities to document their oral history and cultural heritage. The Sri Lankan government has also taken steps to promote awareness and education on the importance of preserving oral tradition. For example, the Ministry of Education has included topics related to oral tradition in the school curriculum. In 2018, Sri Lanka's traditional ritualistic firewalking practice known as "mangalam" was inscribed on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity. This recognition helps to raise awareness and promote the importance of protecting Sri Lanka's intangible cultural heritage, including oral tradition.

8. TRADITIONAL CULTURAL HERITAGE (TCH) AS AN INTANGIBLE CULTURAL HERITAGE (ICH)

Traditional Cultural Heritage (TCH) can be treated as an intangible cultural heritage. Intangible cultural heritage can be simply defined as a living heritage that cannot be touched such as oral traditions and expressions, performing arts (traditional music, dances, theatre) social practices, rituals, knowledge and practices, traditional craftsmanship etc. (Figure 5, 6). The specificity of ICH is that it is deposited in the human mind and can also be named as tacit knowledge too. ICH emerges from the human brain as an oral expression or performance. It can be shared within a community as a language and can be performed collectively as music or dance. Further, it can be carried from generation to generation and continuously recreated by the community, based on the interaction with the environment. It produces a sense of identity in the community, and at the same time it promotes cultural diversity and human creativity. However, the other side of the coin is that the challenging environment

encountered by TCH can cause greater damage to its existence. The challenges faced by ICH can be expressed as globalization, lack of appreciation, lack of understanding and lack of interest.

9. TRADITIONAL MEDICINAL KNOWLEDGE

Traditional medicinal knowledge is an important part of Sri Lanka's cultural heritage, with a long history of herbal medicine practices. The traditional medicinal knowledge available in Sri Lanka consists of two types; formalized systems and non-formalized systems. Ayurveda (Figure 7, 8), Siddha, and Unani, have been categorized as formalized systems whereas *Desiya Chikitsa* (National Treatment) has been classified as the non-formalized system. These systems of traditional medicinal knowledge have been protected as secrets within families and handed down from one generation to another (Perera, 2015). The non-formalized systems are few and practiced only by some isolated communities in Sri Lanka; namely the Veddas, the Rodiyas and the Gypsies, who have integrated into the larger community. The Non-formalized traditional medicinal systems practiced by the above communities are used to treat eye diseases, fractures and dislocations, burns etc. Subsequently with the availability of free health services and free education in the country, these indigenous communities moved out from their traditional lifestyles (Kumar, 2000). Therefore, it is very important that efforts are taken to preserve the non-formalized systems of traditional medicinal knowledge in Sri Lanka, with the help of new technology, which will enable the passing on of traditional know how to the next generation. Dharmasena (n.d.) has stated that although the traditional knowledge systems of indigenous people are highly variable in their content and style, nevertheless they play a significant role in supporting life on the planet. Most traditional knowledge systems are based on the premise that people are part of the environment, and not the owners of their surroundings. Hence, they consider themselves the true guardians of the environment. The above philosophy should be borne in mind when planning for sustainability.

9.1 Traditional Veterinary Knowledge

Traditional veterinary knowledge in Sri Lanka goes way back in history and has been practiced by farmers in the remote areas. These methods of veterinary treatments were inexpensive, environment friendly, and could be carried out easily due to the availability of the required herbal plants in the surroundings. However, with the advent of the western medicine system, the old treatment methods gradually disappeared. As a result, cattle farmers are faced with the problem of finding veterinary practitioners, and also burdened with the enormous costs of treatment. As seen by the existing literature it is evident that the rural farmers in Sri Lanka still prefer the traditional forms of veterinary treatments. Therefore, it is important to revive these practices which will provide treatment at low costs, thus enabling the farmers to protect their livestock. These traditional practices consist of simple herbal treatments and home remedies in combination with the spiritual, astrological, and physical aspects perceived in the rural communities in Sri Lanka (Kahandawa, 2006). Kahandawa further states that the kings of Sri Lanka, gifted lands to ethno veterinary practitioners, for the services rendered by them. They were also bestowed with the prestigious title of *Wana Sundara*. The house of a

traditional practitioner was referred to as the *Weda-Gadera*, (treatment house), and the practitioner was known as the *Weda Mahattaya*, (medical practitioner). Ethno veterinary knowledge in Sri Lanka has been identified and documented by Future in Our Hands (FIOH) and they have identified more than 25 Ethno Veterinary Practitioners (EVPs) in their research studies (Kahandawa, 2006). In this context, it is clear that the documentation of such TCH is vitally important in order to make use of it for the benefit of the present and future generations and to prevent it becoming extinct.

The Department of Animal Production and Health is the main regulatory body for animal healthcare in Sri Lanka. It oversees the development, promotion, and regulation of traditional veterinary practices in the country. Traditional livestock management practices in Sri Lanka involve a range of traditional healthcare practices, including the use of herbal medicines, acupuncture, and massage. Traditional veterinary practitioners, known as *vaidyas*, play an important role in Sri Lanka's traditional veterinary practices. They are often the first point of contact for farmers seeking traditional animal healthcare treatments. Traditional veterinary practices are increasingly being integrated with modern veterinary practices in Sri Lanka. The Department of Animal Production and Health has established a Traditional Veterinary Medicine Unit to promote and regulate the use of traditional veterinary practices alongside modern veterinary practices. Efforts are being made to document and preserve traditional veterinary knowledge in Sri Lanka. The Sri Lanka Traditional Knowledge Digital Library is a project that aims to digitize and make accessible traditional knowledge, including traditional veterinary knowledge, through an online platform.

10. TRADITIONAL AGRICULTURAL KNOWLEDGE

Traditional agricultural knowledge is an important aspect of Sri Lanka's cultural heritage, with traditional farming practices being passed down from generation to generation.

During ancient times, Sri Lanka was an agriculturally self-sufficient country, which was made possible by the traditional agricultural methods practiced by the people who lived during that time. This has been clearly described by Dharmasena (n.d.). According to Dharmasena the farming system, which consisted of *chena*, paddy and home garden cultivation was a combination of the interaction of man with the environment- and developed in harmony with the natural ecosystems. The cultivators regulated their cultivation activities based on their experience and observations regarding rainfall patterns, wind, temperature, humidity and soil behaviour. When they realized that some of the disasters they encountered in their farming were beyond their control, they appealed for support to religious deities and also to spiritual and cosmic influences. It was also believed that it is important to reverse the resources that are used in farming in order to obtain a bountiful harvest. Therefore, it can be seen that the traditional belief systems of the Sri Lankans and their ancestors were associated with the environment and the universe. Moreover, the ancient water soil conservation and ecosystems of Sri Lanka are seen as classic examples of man's adaptation to nature (Mendis, 2002).

Dharmasena (n. d) has stated that the indigenous knowledge of the people is implied and is based mainly on their practices and experience. This knowledge is usually exchanged through personal communication and

demonstration: from master to apprentice, from parents to children, from neighbor to neighbor, etc. Unless this indigenous knowledge is properly documented, analyzed and disseminated, there is a risk that within one single generation, the knowledge could be lost forever. Databases and resource centers could be of assistance in helping to exchange indigenous knowledge between communities and also promoting the integration of indigenous knowledge into the development process. Innovative information communication technologies (ICTs) will enable the recording of traditional cultural expressions and tacit knowledge also helping to preserve such information in the library and museum websites which in turn could be accessed through social media tools.

11. CULTURAL VALUES AND UNIQUENESS

Cultural values inbuilt in TCH represent the uniqueness of a particular culture. In other words, TCH is generated within communities, oral in nature and practically experienced rather than theoretically learnt (Forsyth, 2013; Guchteneire, Krukkert & Liebenstein, 1999; Sen, 2005). According to Daskon (2010; 2011) culture is an essential concept that plays an important role to establish livelihood and its resilience, security and sustainability. Moreover, these communities have their own culture, heritage, and knowledge which create their identity, cultural values and uniqueness. It can be the knowledge about the environment such as herbs, soil, weather patterns; knowledge on farming, preservation and conservation methods, fertilizing, and pest control; knowledge on fishing etc. All this knowledge that has existed for eras, has played a dynamic role in building the cultural values and uniqueness among communities. Much attention has been paid to this aspect in the recent past due to environmental pollution, droughts, floods, bush fires, and tsunamis which have caused severe damage to the environment and livelihoods. It is believed that all these disasters that were faced by humans in the recent past were due to the technological and industrial developments, and thus can be treated as man-made disasters. Therefore, action should be taken to preserve TCH by way of practicing such knowledge as a living heritage. The whole world learnt a good lesson during the recent COVID pandemic which compelled the people to turn to traditional know how such as herbal medicine, traditional foods, etc. and a simple way of living, when they became prisoners in their own homes.

Traditional Cultural Heritage (TCH) is an integral part of local communities and therefore it is very important to protect such knowledge. There have been instances when efforts have been made to use TCH for industrial and commercial benefits, which has led to misappropriation. At this juncture, there should be a method to protect the TCH from such threats and develop it for the sustainable growth of the local community (Cottier and Panizzon, 2004). Protection of TCH from misuse is an important factor for developing countries as it plays a dynamic role in local communities in many ways such as environment, food, religion and culture, herbal medicine, trade and development etc. However, still there are threats to this invaluable knowledge, because it is being used by third parties without prior approval from the TCH owners and also by not sharing the benefits with the communities. At this stage it is crucial to protect TCH from such parties and preserve this valuable knowledge for the wellbeing of the present and future generations.

12. CONCLUSION

There is a possibility of losing the TCH in Sri Lanka, if not systematically documented using print or electronic media. It should be documented for easy access to researchers, scholars and general public. There is a vital risk that TCH will be lost unless it is formally documented and preserved. With the emergence of new technologies people lean towards easy techniques such as chemical agriculture rather than complex traditional methods. For example, during ancient times people used buffalo ploughing (Figure 9) in the paddy fields and now they use tractors. In this context, TCH could soon disappear from the community. Therefore, it is very important to have a national focal point that will take the responsibility to preserve, manage and disseminate this priceless knowledge. In addition, libraries, archives and museums can play a major role to access, preserve, protect and disseminate TCH for the benefit of the present and future generations. Finally, it is our collective responsibility to educate the public on the importance of protecting and preserving the TCH, and how it could be integrated with the new technologies for the wellbeing of the nation. TCH lies at the heart of a particular community and it should be protected from disappearance in order to create a culturally unique country, Sri Lanka, the Pearl of the Indian Ocean.

In conclusion, the digital preservation of traditional cultural heritage in Sri Lanka is crucial in ensuring that the country's cultural heritage is conserved and accessible to future generations. With the rapid advancement of digital technologies, there are now various initiatives in Sri Lanka aimed at preserving and documenting traditional knowledge and cultural practices through digital means. These initiatives include the Sri Lanka Archive of Indigenous Knowledge, the Digital Cultural Heritage program, digital preservation of ancient texts, and digital cultural heritage mapping, among others. Through these efforts, the country is taking steps to mitigate the risks that threaten its cultural heritage and to ensure that it is preserved for future generations to come.

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ANNEXURE – FIGURE 1 - 9



Figure 1. Veddha people (Indigenous people in Sri Lanka)

(Source: <https://www.linkedin.com/pulse/vedda-people-indigenous-sri-lanka-sri-lankan-hire/>)



Figure 2. Veddha using bow and arrow

(Source: <https://www.istockphoto.com/photo/vedda-people-sri-lanka-gm117148073-15929383>)



Figure 3. Kala-vel (Deris Scandens) - The plant is used as a fish poison

(Source: <http://tropical.theferns.info/viewtropical.php?id=Derris+scandens>)



Figure 4. Ola leaf manuscript collection in Sri Lanka
(Source: <http://www.natlib.lk/collections/olaleaf.php>)



Figure 5. Traditional Kandyan Dancers in Sri Lanka
(Source: <http://www.srilankainstyle.com/experience/exclusive-traditional-dance-performance>)



Figure 6. Puppet, Martin Wickremasinghe Folk Museum, Koggala, Sri Lanka
(Photographed by Kamani Perera)



Figure 7. Ayurveda Herbs

(Source: <http://archives.sundayobserver.lk/2014/10/26/fea10.asp>)



Figure 8. Traditional Medicinal Equipment

(Source: <http://apegama.weebly.com/weda-gedara.html>)



Figure 9. Water Buffalo Ploughing a Paddy field

(Source: <https://www.youtube.com/watch?v=0QIAVcdI6V4>)