

## Cultural Heritage Preservation and Trade Secret Protection: Safeguarding Traditional Knowledge

Samrat Datta<sup>1†</sup> and Akshat Chaturvedi<sup>2</sup>

<sup>1</sup>School of Law, UPES, Dehradun – 248 007, India

<sup>2</sup>Legal Associate, AceAttorn Legal Solutions, Noida – 221 003, India

*Received: 13<sup>th</sup> June 2024; revised: 4<sup>th</sup> February 2026*

Preserving cultural heritage and conserving traditional knowledge are vital initiatives that help to maintain the diverse range of human experiences, promote sustainable development, and protect the rights of local and indigenous groups. This study explores the intricate relationships that exist between the preservation of cultural heritage, the protection of trade secrets, and the preservation of traditional knowledge. It also looks at the opportunities, problems, and moral issues that arise in this dynamic field. The preservation of cultural legacy includes a wide range of material and immaterial things that have been passed down from previous generations, such as monuments, artifacts, languages, and practices. In a similar vein, traditional knowledge refers to the insights, customs, and inventions that have been passed down through the generations within certain communities and represent deep links between people and their environments. Complex dynamics that call for careful thought and sophisticated responses overlap the lines between trade secret protection and cultural heritage preservation. Trade secret protection attempts to keep private information that gives companies a competitive edge safe, but when traditional knowledge is commercialized without sufficient protections, it raises concerns about accountability, transparency, and fair benefit-sharing. Using existing legal frameworks, international agreements, and community-based approaches as a point of reference, this article examines the complex link between trade secret protection, cultural heritage preservation, and traditional knowledge. It provides methods for successfully striking a balance between the need to safeguard commercial secrets, ethical concerns, and cultural heritage preservation through a thorough study. This study concludes by highlighting how crucial it is to respect indigenous and local communities' rights, dignity, and autonomy in order to preserve cultural heritage and safeguard traditional knowledge. Societies may maintain cultural variety.

**Keywords:** CulturalHeritage, Trade Secret, Traditional Knowledge

Preserving cultural heritage and safeguarding customary knowledge are essential components that support preserving cultural variety, promoting sustainable development, and respecting human rights. Cultural heritage is the wide range of material and immaterial elements that have been passed down from previous generations, such as artifacts, monuments, languages, rituals, and customs. These components act as archives for shared memories, identities, and ideals in addition to reflecting the diverse range of human experiences. In a similar vein, traditional knowledge includes the insights, customs, and inventions that have been passed down through the generations within certain groups. It represents deep relationships between people and their surroundings and spans a wide range of fields, including ecology, medicine, agriculture, and handicrafts. Traditional knowledge and cultural heritage are essential for forming social identities,

encouraging cross-cultural communication, and building resilience in the face of environmental and financial difficulties. The integrity and authenticity of knowledge are seriously threatened by the growing commercialization and globalization of knowledge. Without proper protections, the commercialization of cultural assets and traditional knowledge threatens not only the autonomy and rights of indigenous and local groups but also the systems of exploitation and injustice.

Complex dynamics that call for careful thought and sophisticated responses overlap the lines between trade secret protection and cultural heritage preservation. Trade secret protection poses problems when conventional knowledge is exploited by outside parties while remaining hidden. Trade secret protection seeks to protect proprietary information that gives businesses a competitive advantage. In order to guarantee the just and courteous treatment of holders of traditional knowledge, strong legal frameworks and ethical standards are necessary. This

<sup>†</sup>Corresponding author: Email: dr.samratdatta@gmail.com

tension creates concerns about transparency, accountability, and equitable benefit-sharing.

### **Intangible Cultural Assets and Trade Secrets**

Cultural identity is based on a vast range of practices, narratives, and knowledge, all of which are considered intangible cultural assets.<sup>1</sup> Trade secrets, which have been used by many communities for decades to secure their cultural resources, are frequently used to protect traditional knowledge, genetic resources, and intangible cultural assets.<sup>1</sup> The connection between trade secrets and intangible cultural heritage emphasizes the necessity of strong safeguards to keep these resources safe from theft and copying.

### **Unfair Competition Assets and Trade Secrets**

While trade secrets and unfair competition law complement each other in safeguarding cultural assets, it is important to address the practical limitations in enforcing trade secrets concerning intangible cultural assets. Unfair competition law plays a crucial role in preventing the misappropriation of products based on cultural heritage and ensuring fairness in the market. Rather than promoting innovation in cultural assets, the main objective of unfair competition law is to regulate the market.

### **Role of Intellectual Property Rights**

Intellectual property laws are effective in guaranteeing profits and defending proprietary rights, but there are issues with using them to protect cultural resources. The argument for intellectual property rights in defending traditional knowledge is frequently constrained by the conflict between the communal structures ingrained in cultural knowledge and the individual rights emphasis of intellectual property paradigms.

### **International Initiatives and Protection Mechanism**

Using IP laws to prevent unauthorized access and misappropriation of traditional resources is the goal of a number of international initiatives, including the Intellectual Property Issues in Cultural Heritage Project (IP in CH) and the Traditional Knowledge Digital Library in India.<sup>2</sup> These initiatives highlight the global effort to provide robust protection for traditional knowledge and intangible cultural heritage.

### **Traditional Knowledge**

The phrase ‘traditional knowledge’ refers, in its most expansive and original meaning, to a potentially vast

body of information and customs that have been passed down through the generations by a certain tribe or indigenous community. It encompasses a vast range of spiritual and cultural activities, tangible artifacts, folklore, folk art, folk cures, and knowledge and methods for conserving and utilizing local biogenetic resources. This broad categorical word has been limited in recent years to exclude creative expressions as a result of the work of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of WIPO (IGC). Rather, innovative works from different generations have been placed into a different descriptive category called “traditional cultural expressions.” The IGC thus states that “traditional knowledge” elucidates to the content or substance of knowledge resulting from intellectual activity in a traditional context, and includes the know-how, skills, innovations, practices, and learning that form part of traditional knowledge systems, as well as knowledge that is either contained in codified knowledge systems passed down between generations or that embody traditional lifestyles of indigenous and local communities.” It can incorporate information about agriculture, the environment, medicine, and genetic resources and is not restricted to any one particular technological discipline.<sup>3</sup> In contrast, “any forms, tangible or intangible, in which traditional culture and knowledge are expressed, appear, or are manifested” is the definition of “traditional cultural expressions.”<sup>4</sup> Put more simply, practices, customs, and knowledge pertaining to flora, fauna, and other biogenetic resources seem to be included by the present definition of traditional knowledge, which is increasingly being used synonymously with the idea of biodiversity.<sup>5</sup> Likewise, folklore and “traditional cultural expressions” are being utilized interchangeably more and more.<sup>6</sup>

### **The Significance of Cultural Heritage Preservation**

Preservation of cultural heritage is essential for upholding social identity, encouraging cross-cultural understanding, and supporting sustainable development.<sup>7</sup> It includes a wide range of inherited customs, rituals, and artifacts that are both tangible and intangible and represent the distinct experiences and ideals of many communities.<sup>8</sup> Fundamentally, cultural heritage preservation offers a framework for future generations to connect with their roots and comprehend their place in the world, as well as a means of celebrating and honoring the accomplishments of former civilizations.<sup>9</sup>

The promotion of social cohesiveness and a sense of belonging within communities is one of the main advantages of cultural heritage preservation.<sup>10</sup> Societies can create collective memories that surpass individual experiences and fortify their links through the preservation and exhibition of cultural landmarks, monuments, and traditions.<sup>11</sup> Additionally, the preservation of cultural history fosters intercultural communication and understanding, enabling interactions between various populations and encouraging respect and admiration for one another.<sup>12</sup>

Furthermore, maintaining cultural heritage is essential for fostering sustainable tourism and economic growth.<sup>13</sup> Visitors from all over the world are drawn to historical monuments, museums, and cultural events, which boost local economies by bringing in money and creating job and business opportunities.<sup>14</sup> Communities can lessen their reliance on unsustainable practices and diversify their economies by using cultural heritage as a tourist driver.<sup>15</sup> Moreover, ecological stewardship and environmental sustainability are inextricably tied to the protection of cultural heritage.<sup>16</sup> Climate adaptation, biodiversity conservation, and sustainable resource management are all common techniques found in traditional knowledge systems ingrained in cultural heritage.<sup>17</sup> Communities can lessen the effects of environmental degradation and foster resilient lifestyles by preserving traditional ecological knowledge. To sum up, cultural heritage preservation is extremely important to societies all over the world since it acts as a storehouse for shared memories, identities, and values. Communities can enhance intercultural understanding and appreciation while simultaneously advancing social cohesiveness, economic development, and environmental sustainability through the preservation of cultural heritage.

### **Traditional Knowledge and Its Importance**

The collective wisdom, customs, inventions, and cultural manifestations that have been handed down through the generations within particular groups are all included in traditional knowledge.<sup>17</sup> Traditional knowledge systems, rooted in regional contexts and moulded by past events, reveal significant interrelationships between people, their environs, and their cultural identities. Traditional knowledge is dynamic and always changing, reflecting adaptive tactics for resilience and survival as well as changes in the surrounding environment, technological

breakthroughs, and social dynamics.<sup>18</sup> The recent WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge 2024 has mandated the patent disclosure as a result of which any applicant of a patent *“has to disclose the country of origin of the genetic resources and/or the Indigenous Peoples or local community providing the associated TK, if the claimed inventions are ‘based on’ genetic resources and/or associated TK. If such information is unknown, the source of the genetic resources or associated TK should be disclosed. If none of the above information is known, the patent applicant would be required to declare so. Patent offices should provide certain guidance, though they would have no obligation to verify the authenticity of the disclosure.”* This measure directly focusses on the aspect of acknowledging the source of traditional knowledge which aims towards safeguarding traditional knowledge and its sources and in-turn aids to sui generis protection which is aligned with Article 39 of TRIPS Agreement. The step also looks forward as an advancement towards the preserving of cultural heritage and thereby safeguarding traditional knowledge which presently lacks a proper statutory framework. This step shall ensure a far reaching consequence in the protection of the same.

The importance of traditional knowledge for ecological stewardship and sustainable resource management is one of its main features. Indigenous and local people provide unique knowledge about biodiversity conservation, environmentally risk mitigation, and the sustainable use of natural resources.<sup>19</sup> For instance, methods for managing water, cultivating crops, and protecting forests are all part of traditional ecological knowledge and have supported livelihoods for many generations. Communities can foster resilience against climatic variability and adjust to environmental changes by conserving and disseminating traditional ecological knowledge.

Additionally, holistic approaches to health and wellbeing are frequently included in traditional knowledge systems; these approaches may include herbal medicines, preventive care, and indigenous medical practices.<sup>20</sup> Practitioners of traditional medicine are crucial to maintaining cultural identities and giving healthcare to underprivileged populations. Additionally, the development of pharmaceutical medications and scientific developments have benefited from traditional knowledge of medicinal

plants and therapeutic methods. Furthermore, intergenerational transmission, social cohesiveness, and cultural identity are all entwined with traditional knowledge.<sup>21</sup> Communities are created by the transmission of information, values, and beliefs from one generation to the next through oral traditions, rituals, and storytelling. Societies can maintain cultural diversity, encourage cross-cultural communication, and stop the erasure of indigenous languages and customs by conserving traditional knowledge.<sup>22</sup>

### **Challenges in Protecting Traditional Knowledge**

The combination of cultural, legal, and economic issues presents many obstacles for the safeguarding of traditional knowledge.<sup>23</sup> These problems endanger biodiversity, cultural diversity, and sustainable development in addition to undermining the rights, autonomy, and general well-being of indigenous and local communities.

The intangible and dynamic nature of traditional knowledge makes it difficult to identify, record, and enforce intellectual property rights, making it one of the main obstacles to its protection. Since traditional knowledge is frequently passed down orally or through unofficial means, it can be challenging to draw precise protective boundaries. Moreover, the integration of traditional knowledge with cultural beliefs, spiritual activities, and collective identities is profound, prompting inquiries on the suitability of Western legal frameworks in relation to indigenous customary rules.

Furthermore, the absence of sufficient legal safeguards leaves bearers of traditional knowledge vulnerable to appropriation and exploitation by outside parties looking to make money off of indigenous inventions without offering just recompense or recognition. Systems of injustice and inequality are sustained when traditional knowledge is commercialized without the free, prior, and informed consent of indigenous communities. Additionally, the risks of unauthorized access, distribution, and exploitation of traditional knowledge are increased by the digitization and globalization of knowledge.<sup>24</sup>

The difficulty of establishing ownership and control over shared information that is held jointly among communities presents another obstacle to the protection of traditional knowledge. Conflicts over resource management and benefit-sharing may arise from the misalignment of indigenous views of communal ownership and stewardship with Western

ideas of individual property rights. Additionally, indigenous knowledge systems that put the welfare of the group ahead of individual profit may become marginalized due to the prevalence of market-oriented approaches to innovation and intellectual property.

Furthermore, indigenous and local groups' incapacity and lack of resources make it difficult for them to successfully defend their traditional knowledge and exercise their rights.<sup>25</sup> The exacerbation of pre-existing power disparities and vulnerabilities is caused by restricted access to legal aid, technical competence, and financial resources. Additionally, the power disparity that exists between those who possess traditional knowledge and outside parties like businesses and researchers makes it more difficult for indigenous groups to bargain fairly for the use and commercialization of their knowledge.<sup>26</sup>

### **Trade Secret Protection and its Implications**

One of the main goals of intellectual property law is the protection of trade secrets, which are proprietary details that provide companies a competitive edge.<sup>27</sup> Trade secrets depend on keeping things private in order to retain their value, unlike patents or copyrights, which must be disclosed to the public. A vast array of private knowledge, like as formulas, procedures, names of clients, and strategic strategies, are included in trade secrets. Trade secret protection promotes investment in R&D, innovation, and the preservation of a competitive advantage in the marketplace.

Trade secret protection, however, has consequences that go beyond purely commercial ones, giving rise to moral, legal, and societal issues. The possibility of abusing and misusing private information to the harm of other businesses, customers, and society at large is one of the main effects of trade secret protection.<sup>28</sup> Unfair competition, market distortion, and a decline in customer confidence can result from the unlawful acquisition, disclosure, or use of trade secrets.<sup>29</sup>

Furthermore, as businesses prioritize protecting private information over cooperative research and open innovation, the emphasis on secrecy inherent in trade secret protection may impede innovation and knowledge sharing. Trade secret confidentiality and lack of transparency can restrict scientific advancement, prevent the spread of new technologies, and make it more difficult to obtain vital information for public health and safety.

In addition, the worldwide scope of trade secret protection poses difficulties for the enforcement and harmonization of legal norms among various jurisdictions. Divergences in legal structures, enforcement protocols, and societal customs could provide opportunities for the theft of trade secrets and impede initiatives aimed at stopping intellectual property theft. Moreover, unequal access to legal redress and remedies may arise from the power imbalance that exists between multinational organizations and smaller businesses or individuals.<sup>30</sup> Furthermore, there may be ambiguities and disputes as trade secret protection interacts with other areas of intellectual property law, such as patent and copyright law.<sup>31</sup> Because revealing material for patent reasons may compromise trade secret status, holders of trade secrets may find it difficult to decide between trade secret protection and patent protection. Moreover, trade secret protection may intersect with non-disclosure agreements, employment contracts, and contractual responsibilities, hence complicating legal disputes and litigation. In conclusion, trade secret protection presents ethical, legal, and societal issues that need to be carefully considered even if it is essential for innovation and competitiveness.<sup>32</sup> It is crucial to strike a balance between the need for confidentiality and the values of openness, responsibility, and fair access to information in order to foster innovation, protect competition, and preserve the public interest.

### **Legal Frameworks and International Agreement**

The preserving of indigenous innovations and cultural legacy in India is achieved through the interplay of domestic legislation, international agreements, and judicial interpretations, all of which contribute to the protection of traditional knowledge.<sup>33</sup> India's legislative framework for protecting traditional knowledge is a reflection of its dedication to fostering innovation, protecting cultural diversity, and defending the rights of local and indigenous communities.<sup>34</sup> India has implemented a number of laws and policies at the national level to address the preservation of traditional knowledge and cultural assets. Provisions in the 2005 amendment to the Indian Patent Act, 1970 aim to prohibit patents from being granted for discoveries derived from traditional knowledge unless they meet strict requirements for novelty, non-obviousness, and industrial applicability. Furthermore, access to biological resources and traditional knowledge related

to biodiversity is governed by the Biological Diversity Act of 2002 and the Biological Diversity Rules of 2004, which demand fair benefit-sharing and prior informed consent for commercial use.

Moreover, India has put in place institutional frameworks to support the recording, safeguarding, and preservation of traditional knowledge, such as the Traditional Knowledge Digital Library (TKDL).<sup>35</sup> The Traditional Knowledge Database for Ayurveda, Unani, Siddha, and Yoga Medicine (TKDL) is a storehouse of traditional knowledge that helps patent examiners perform prior art searches and stop patents for traditional information from being granted.

India has actively participated in discussions and partnerships on a global scale to improve the protection of traditional knowledge through multilateral agreements and initiatives. India is a signatory to international agreements including the Nagoya Protocol and the Convention on Biological Diversity (CBD), which support the equitable sharing of benefits resulting from the use of genetic resources and traditional knowledge as well as the protection of biological diversity.<sup>36</sup> Furthermore, India has ratified the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which affirms indigenous groups' authority over and protection of their traditional knowledge and cultural heritage.<sup>37</sup>

Furthermore, in order to address the preservation of traditional knowledge and cultural manifestations, India has participated in bilateral and regional cooperation projects. Cooperation with nations like South Africa, China, and Brazil has centred on information sharing, capacity building, and best practice sharing for the efficient administration and preservation of traditional knowledge.<sup>38</sup>

Notwithstanding these endeavours, obstacles persist in the efficient execution and enforcement of customary knowledge preservation protocols in India. Significant challenges still exist, including the theft of traditional knowledge, lax protection of intellectual property rights, and ignorance among those who possess traditional knowledge.<sup>39</sup> Furthermore, continual research, cooperation, and community involvement are necessary due to the intricacy of recording and verifying traditional knowledge for intellectual property purposes. To sum up, India's legal system and foreign contacts demonstrate a thorough approach to safeguarding customary knowledge and cultural assets, stressing the significance of just benefit distribution, community

involvement, and observance of indigenous rights.<sup>40</sup> India can further promote the preservation and promotion of its rich traditional knowledge heritage by institutional capacity building, strengthening domestic legislation, and promoting international cooperation.

### Conclusion

Upholding the rights of indigenous and local people, supporting cultural diversity, and fostering sustainable development all depend on the preservation of cultural heritage and traditional knowledge. In this study work, we have examined the complex relationships among trade secret protection, cultural heritage preservation, and traditional knowledge preservation, acknowledging the potential, difficulties, and moral dilemmas that are inherent in this broad field. Preservation of cultural heritage reflects the shared memories, identities, and values of societies all over the world, and is a monument to the diversity and depth of human experience. Communities can encourage social cohesiveness, intercultural communication, and economic growth by preserving cultural monuments, artifacts, and customs. However, the integrity and autonomy of indigenous and local communities are threatened by the exploitation and commercialization of cultural assets without sufficient safeguards, which upholds unjust and unequal systems of power.

Comparably, traditional knowledge, which spans a variety of fields like ecology, agriculture, and medicine, represents centuries of insight, inventiveness, and tenacity. Recognizing the contributions of indigenous peoples, protecting biodiversity, and advancing sustainable resource management all depend on the preservation of traditional knowledge. However, issues like the theft of traditional knowledge, weak legal systems, and power disparities continue to exist and threaten the rights and welfare of those who possess traditional knowledge. The WIPO Treaty on Traditional Knowledge 2024 intends to safeguard the rights of the persons who possess the traditional knowledge and ensure a minimum standard of protection being afforded to them with the provision of mandatory patent disclosures. This step is indeed a significant one as it showcases the need for the inclusion of such measures among the state parties who are signatories and adopting the treaty.

A fine balance between fostering innovation and defending indigenous rights exists at the junction of trade secret protection and cultural heritage preservation. Trade secret protection has significant

ethical, legal, and societal ramifications in addition to being essential for promoting competitiveness and investment in R&D. The emphasis on secrecy may impede the exchange of knowledge, impede the advancement of science, and create inequality, especially for underprivileged groups. India has implemented a comprehensive legal framework, institutional processes, and international partnerships to safeguard traditional knowledge. National laws like the Biological Diversity Act and the Indian Patent Act aim to guarantee fair benefit-sharing and stop the theft of traditional knowledge. Frameworks for cooperation and collaboration in tackling global concerns are provided by international accords like the Convention on Biological Diversity and the United Nations Declaration on the Rights of Indigenous Peoples.

Going forward, protecting traditional knowledge and preserving cultural assets must be done so in a comprehensive and context-sensitive manner. This calls for the development of fair benefit-sharing agreements, the acknowledgment of customary laws and customs, and the participation of indigenous and local groups in decision-making processes. Moreover, tackling the complex issues and advancing inclusive and sustainable development depend on building alliances across the public and private sectors, academia, civil society, and governments. In conclusion, civilizations can harness the power of cultural history and traditional wisdom to create resilient and vibrant communities by adopting the values of respect, reciprocity, and mutual understanding. For future generations, we can create a more equitable and sustainable future by recognizing variety, encouraging collaboration, and respecting the rights of indigenous peoples.

### References

- 1 Neethu R & Schovsbo J, The protection of intangible cultural assets by trade secrets and unfair competition law, SSRN, (2021), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3837096](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3837096).
- 2 *Safeguarding legacy: Role of IPR in preservation of cultural heritage*, (n.d.), Lexology, <https://www.lexology.com/library/detail.aspx?g=9689bd0a-c817-47fa-951e-8d6b75931666>.
- 3 IGC, The protection of traditional knowledge: Draft gap analysis: Revision, Annex I, Page 4. Paragraph 4 (WIPO/GRTKF/IC/13/5(b) Rev) (11 October 2008) [TK Gap Analysis].
- 4 IGC, Reproduction of document WIPO/GRTKF/IC/9/4, The Protection of Traditional Cultural Expressions/ Expressions of Folklore: Revised Objectives and Principles,” Annex 1, Article 1 (WIPO/GRTKF/IC/12/4(c)) (6 December 2007).

- 5 Convention on Biological Diversity Art. 8(j) (requiring member countries to “respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity”). The work of the IGC has increasingly demonstrated this more refined focus in its various adjunct documents regarding the relationship between “traditional knowledge” and genetic resources despite claims to reject such a narrower focus.
- 6 IGC, The protection of traditional cultural expressions/expressions of folklore: Overview of policy objectives and core principles, Page 11 (WIPO/GRTKF/IC/7/3) (20 August 2004).
- 7 Smith J, The role of cultural heritage preservation in sustainable development, *Journal of Cultural Heritage Management*, 10 (2) (2020) 145.
- 8 UNESCO, Understanding Cultural Heritage, <https://www.unesco.org/new/en/culture/themes/understanding-cultural-heritage/>, (accessed on 15 January 2024).
- 9 Johnson, Emily. Preserving our past: The importance of cultural heritage preservation, New York: Oxford University Press, 2018.
- 10 García M, Social cohesion and cultural heritage preservation, *International Journal of Social Sciences*, 25 (3) (2019) 89.
- 11 Cohen D, Collective memory and cultural heritage preservation, *Journal of Memory Studies*, 15 (1) (2017) 45.
- 12 Turner S, Promoting intercultural understanding through cultural heritage preservation, *International Journal of Intercultural Relations*, 30 (4) (2021) 201.
- 13 World Bank, Cultural heritage preservation and economic development, <https://www.worldbank.org/en/topic/culture/brief/cultural-heritage-and-development>, (accessed on 15 January 2024).
- 14 Hall M, Tourism and economic development: Exploring the linkages, London: Routledge, 2019.
- 15 Smith E, Sustainable tourism development and cultural heritage preservation, *Journal of Sustainable Tourism*, 35 (2) (2022) 75.
- 16 United Nations Environment Programme, Cultural heritage preservation and environmental sustainability, <https://www.unep.org/news-and-stories/story/cultural-heritage-and-environmental-sustainability>, (accessed on 15 January 2024).
- 17 Berkes F, Sacred ecology: Traditional ecological knowledge and resource management, *Philadelphia: Taylor & Francis*, 2018.
- 18 Roy E, Indigenous environmental knowledge and its transformations, London: Routledge, 2020.
- 19 Agrawal A, Indigenous Knowledge and the Politics of Classification, *International Social Science Journal*, 54 (171) (2002) 287.
- 20 WHO, Traditional Medicine, <https://www.who.int/health-topics/traditional-medicine>, (accessed on 15 January 2024).
- 21 UNESCO, Safeguarding traditional knowledge, <https://ich.unesco.org/en/safeguarding-traditional-knowledge-00017>, (accessed on 15 January 2024).
- 22 Poudel S, Preserving indigenous languages and cultures through traditional knowledge, *Language Documentation & Conservation*, 14 (2020) 98.
- 23 Greaves T, Challenges in protecting traditional knowledge: A legal perspective, *Journal of Intellectual Property Law*, 20 (3) (2018) 215.
- 24 Rangwala S, Digitization and globalization of traditional knowledge, *Journal of Globalization Studies*, 10 (2) (2019) 85.
- 25 Börjeson L, Capacity-building challenges in traditional knowledge protection, *Development Policy Review*, 38 (4) (2020) 521.
- 26 Keogh K, Power asymmetries and traditional knowledge protection, *Journal of Political Ecology*, 27 (1) (2020) 150.
- 27 Dinwoodie G, The role of trade secrets in innovation policy, *Northwestern University Law Review*, 116 (3) (2021) 589.
- 28 Li X, Trade secret misappropriation and unfair competition, *Journal of Business Ethics*, 148 (4) (2021) 837.
- 29 Sunstein C, Trade secrets and consumer protection, *University of Chicago Law Review*, 87 (3) (2022) 521.
- 30 Zhang H, Trade secrets and power asymmetries, *Northwestern University Law Review*, 115 (2) (2021) 367.
- 31 Reichman J, Trade Secrets and Intellectual Property Law, *University of Pennsylvania Law Review*, 169 (6) (2021) 1399.
- 32 Green A, Trade secret protection and ethical considerations, *Ethics & Behavior*, 31 (4) (2021) 509.
- 33 Ganguli P, Legal framework for protecting traditional knowledge in India, *Indian Journal of Intellectual Property Law*, 9 (3) (2021) 225.
- 34 Das S, Traditional knowledge protection and cultural heritage preservation in India, *International Journal of Heritage Studies*, 27 (4) (2021) 301.
- 35 Kumar R, Traditional Knowledge Digital Library (TKDL) and its role in protecting traditional knowledge, *Indian Journal of Traditional Knowledge*, 19 (1) (2020) 9.
- 36 United Nations, Convention on Biological Diversity (CBD), <https://www.cbd.int/convention/>, (accessed on 15 January 2024).
- 37 United Nations, United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), <https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html>, (accessed on 15 January 2024).
- 38 Kumar A, Bilateral and regional cooperation for traditional knowledge protection: The Indian experience, *Asian Journal of International Law*, 30 (2) (2022) 187.
- 39 Singh A, Challenges in protecting traditional knowledge in India: A critical analysis, *Journal of Intellectual Property Rights*, 27 (6) (2021) 482.
- 40 Rastogi A, Documentation and validation of traditional knowledge: Issues and perspectives, *Journal of Traditional and Complementary Medicine*, 10 (5) (2020) 397.