

TRADITIONAL KNOWLEDGE ON THE INTELLECTUAL PROPERTY OF THE INDIGENOUS PEOPLE OF TENGANAN PEGRINGSINGAN BALI

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Abstract

The potential of traditional knowledge of the indigenous people of Tenganan Pegriingsingan, Manggis District, Karang Asam Regency, Bali, leads readers to a new insight that this potential can be measured through the concept of Intellectual Property Rights. This is in accordance with the parameters listed in WIPO and the mandate of Government Regulation No. 56 of 2022 concerning Public Intellectual Property. However, this potential has not been identified as an intellectual property right. This article explores the diverse traditional wisdom within the indigenous community of Tenganan that potentially has an intellectual property right. This traditional wisdom is recorded as part of the knowledge in the Intellectual Property Rights regime using a proprietary system. This study employs a qualitative method with hermeneutic analysis to explore the traditional wisdom of the indigenous people of Tenganan and its potential for protecting intellectual property rights. The results of this study aim to identify the traditional knowledge of the Tenganan indigenous community and classify it within the intellectual property rights regime as regulated in Indonesia's Intellectual Property Rights Law, with the expectation of supporting the communal intellectual property of the Tenganan people.

Keywords: Intellectual Property Rights; Tenganan Indigenous Peoples; Traditional Knowledge

Introduction

Tenganan Pegriingsingan Village, located in Manggis district, Karangasem district, Bali Province, is home to one of the oldest indigenous communities on the island of Bali, besides Trunyan. Indigenous peoples in Bali are classified into two: Bali Aga and Bali Dataran. The indigenous people of Tenganan are often known as the Balinese Aga people (the indigenous people of Bali or Old Bali, where they had settled before the entry of Hinduism). In Tenganan Village, the livelihood of the locals mainly relies on agricultural products and plantations. The people live by maintaining the traditional ordinances inherited from the previous generation in

compliance with a traditional legal order called Awig-awig.

Previous research has investigated the cultural potential in Tenganan village, which is based on biological natural resources.¹ Likewise, research contends that Awig-awig regulates what is allowed and prohibited in the indigenous community of Tenganan. This regulation includes the philosophy of respecting nature, and its contents, particularly by teaching indigenous people about the importance of biological natural resources valuable for their survival.² Some other prior research, however, was limited to the studies of the perspective of Geographical Indications in Tenganan village.³

The biological natural resources in Tenganan village in this study are not solely focused on the crops they plant as staples of food, including rice and tubers; they also grow other plants that support other life systems. It was found that the indigenous people of Tenganan used materials derived from nature or biological natural resources. A variety of materials were collected from biological natural resources, processed, and used as goods and equipment to help them meet their day-to-day needs and earn a living. These traditional ideas of transforming the natural products into useful goods and equipment carry the potential to be granted intellectual property rights (henceforth referred to as IPR)

Intellectual property encompasses several categories, including traditional knowledge, geographical indications, expressions of folklore, and genetic resources. Therefore, in this paper, we discuss efforts to protect the culture of the Tenganan community based on traditional knowledge through the IPR regime.

Research Methods

This research is descriptive, employing a qualitative approach to explore data and information from the indigenous people of Tenganan on part of traditional knowledge. This approach also helps interpret the meaning contained in the knowledge. Furthermore, the interpretation results were grouped into sub-sections, presenting the definition of traditional knowledge according to international organisations and definitions from experts. The grouping results were analysed using Hermeneutic Analysis, revealing that each group of traditional knowledge is correlated with one or several concepts of IPR that align with the content of IPR laws and regulations in Indonesia. The results of this grouping and linkage between traditional knowledge and the concept of IPR will serve as a reasoning basis, highlighting the necessity of making special

1 I Made Ruta, et. al, *Parigi-Gringsing-Slonding Desa Swabudaya Tenganan* (Pusat Penerbitan LP2MPP Institut Seni Indonesia Denpasar, 2022).

2 I Gede Mahendra, et. al., "Pengaturan Pengelolaan Hutan Di Atas Tanah Hak Milik di Desa Tenganan Pegringsingan," *Kertha Negara: Journal Ilmu Hukum* 3, no.1 (2015).

3 I Gusti Ayu Purnamawati, "Perlindungan Hukum Indikasi Geografis terhadap Kerajinan Tradisional untuk Penguatan Ekonomi Wilayah," *Pandecta* 11, no. 1 (June 2016).

arrangements related to traditional knowledge in the IPR regime.

Discussion

The indigenous people of Tenganan Pegringsingan Bali reside in a beautiful place located between Kangin hill on the east side and Kauh hill on the west. The word *Tenganan* was derived from the word “middle” or “*ngatengahan*”, which means to move to a deeper place.⁴

The indigenous people of Tenganan live very conservative lives, where they have a firm adherence to preserving the cultural heritage of their ancestors. They comply with *awig-awig*—their customary law. The indigenous people of Tenganan Pegringsingan, Bali, mainly rely on the agricultural and plantation sectors as their main livelihood. However, researchers have found that the Tenganan people are also involved in activities that have the potential for communal intellectual development.

A. Traditional Knowledge and Intellectual Property Rights (IPR)

Traditional knowledge encompasses information gathered from the community regarding their needs for nature and the environment, as well as knowledge that emerges from ecological, social, and cultural relations, encompassing intellectual works, ideas, and innovations that represent the ethnic groups of a country.⁵ Traditional knowledge (*traditional knowledge*) is a term used by WIPO to set a restriction on a cultural work that is traditional and owned by a traditional community group. The issue of traditional knowledge is currently developing within the scope of IPR studies, namely the legal protection of intellectual property produced by indigenous people or traditional communities in Indonesia.

Given that traditional knowledge is the result of human innovation and creation in the fields of knowledge, art, and literature, it falls within the scope of intellectual works sourced from community group ideas or inventions that the state must protect. Almost all IPR branches incorporate elements of traditional knowledge, including, in the context of traditional knowledge in Tenganan, copyrights, patents, trademark rights, and geographical indications, as will be described in this paper. Such a protection-related issue has become the topic in international discussions at the first session of the *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC GRTKF)* ⁶at WIPO’s headquarters in Geneva, Switzerland, in 2001 and also in the IPR board (*Council for Trade-Related Aspects*

4 Ida Ayu Kartika Pradnyaniti Nila Iswari, *et. al.*, “Sistem Kepemimpinan Desa Adat Tenganan Pegringsingan, Manggis, Karangasem Dan Potensinya Sebagai Sumber Belajar Sosiologi Di SMA,” *Edusocius Jurnal Ilmiah Penelitian Pendidikan Dan Sosiologi* 6, no. 2 (Oktober 2022).

5 Trevor Swerdfager, and Andrea Olive, “Laws matter: a foundational approach to biodiversity conservation in Canada,” *Facets* 8 (2023): 9, <https://doi.org/10.1139/facets-2022-0095>.

6 “Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC GRTKF),” <https://www.wipo.int/tk/en/igc/>.

of *Intellectual Property Rights*). Others in the WTO are equally important, discussing the need for protection of traditional knowledge, whether it is regulated separately or combined in other IPR legal arrangements in each member state.⁷ These discussions include debates between developed and developing countries, focusing on the interpretation of traditional knowledge. This encompasses the inherited practices and skills of older generations, which have been passed down through communities in the form of art, techniques, thoughts, and skills, and can be seen as economic value generators.

Traditional knowledge is an identity; it is the identity of Indonesia that can be used economically for the progress and welfare of the community. Therefore, the Ministry of Law and Human Rights, the Ministry of Trade, the Ministry of Home Affairs, and the Ministry of Tourism and Creative Economy need to work together in formulating a “Fair distribution of profits” as stated in article 8 (j), *United Nations Convention on Biological Diversity*.

B. Elements of Traditional Knowledge

Apart from *Awig-Awig* as the customary regulatory basis of the Tenganan indigenous people, some aspects deserve attention, including the knowledge possessed by the Tenganan indigenous people in the process of creating goods or equipment to support their lives. The Tenganan indigenous community is renowned for its Pegringsingan woven fabrics, the Makarekare ceremony (the Pandan war ceremony), and lontar painting. These three ancient cultural arts have survived to date. These traditional activities have been inherited from past generations as a wealth asset on a macro scale. Nevertheless, the identification of traditional knowledge as cultural heritage has not been properly organised, necessitating further research to identify existing traditional knowledge.

Indigenous peoples depend on biodiversity for their survival; they utilise these biological natural resources, particularly those derived from plants and animals. Such survival conditions show how they struggle to maintain their existence.

The elements of Traditional Knowledge are defined as follows:

*“Traditional knowledge includes, for example, information on the use of biological and other materials for medical and agricultural medicine, production processes, design, literature, music, rituals, and other techniques and arts. This broad collection includes information that is functional and aesthetic, i.e. processes and products that can be used in agriculture or industry, as well as intangible information that has cultural value.”*⁸

7 Sri Asih Roza Nova, “Perlindungan Hukum Terhadap Pengetahuan Tradisional Di Indonesia Dari Tindakan Misappropriation,” *UNES Journal of Swara Justisia* 6, no. 4 (2023): 433, <https://doi.org/10.31933/ujsj.v6i4.295>.

8 Parveen Yadav, and Saroj Bohra, “Traditional Knowledge: Penetrating Intellectual Property,” *Journal of Intellectual Property Rights (JIPR)* 27, no. 6 (2022): 428, <http://op.niscpr.res.in/index.php/JIPR/article/view/63620>.

This view can serve as the basis for classifying that traditional knowledge involves the utilisation of materials sourced from nature for a) medical treatment; b) agricultural process; c) production process; d) design; e) literature and music; (f) Traditional ceremonies; g) other techniques such as art; and h) information on the function and aesthetic character of the process and its products used in agricultural and industrial scopes, holding intangible cultural values.

Therefore, the author identifies traditional knowledge by using this parameter: the existence of a product or action resulting from an event that is the result of and/or has cultural heritage values. This parameter is to identify the existence of such traditional knowledge. A product or process living in indigenous communities cannot be referred to as traditional knowledge unless it is part of cultural heritage. The cultural heritage in question is, of course, the relics of previous generations. The existence of these products and actions is used to help carry out daily activities. To meet their daily needs, such as clothing, food and housing, the indigenous community of Tenganan utilise what exists in their surroundings to facilitate these needs. For example, they weave fabrics with distinctive patterns and colours to produce clothes, use herbal plants as their medicine and food, and design their own houses based on local wisdom.

This parameter is used because there is no mention of the term traditional knowledge. As Barsh argues, what is prioritised in traditional knowledge is not its uniqueness, but rather its association with how this knowledge is acquired and used.⁹

C. Elements of Intellectual Property Rights (IPR)

Intellectual property rights (IPR) emerged with the existence of a movement to introduce the community to the benefits, thus encouraging people with creativity and invention to have more respect for the products of their minds, as Sherwood said.¹⁰

Intellectual Property Rights (IPR) are regulated by Law No. 7 of 1994 concerning the Ratification of the WTO. Intellectual property rights (IPR) can be understood as the protection of rights arising from human intellectual abilities, or it is simply termed human rights. Ultimately, to categorise rights into the regime of IPR, two elements¹¹ must exist; *first*, Property rights are the result of (intellectual) thoughts, attached to the owner, permanent and exclusive; *second*, the rights are obtained by other parties with the consent of the owner (temporary), e.g., the right to advertise, reproduce, use, or produce specific products.

This is the case in the development of the concept of IPR that are private in nature and

9 Tej Kumar Nepal, "The Place of Spirituality in Traditional & Scientific Ecological Knowledge," *Asian Journal of Language, Literature and Culture Studies* 7, no.1 (2024): 183-187.

10 Svetlana Duca, "The Resource of Creativity and Creative Human Capital for the Management of Knowledge Economy: Implications for the Republic of Moldova," *E3S Conference Web* 409 (2023): 1-7, <https://doi.org/10.1051/e3sconf/202340905015>.

11 Maria Alfons, "Implementasi Hak Kekayaan Intelektual Dalam Perspektif Negara Hukum," *Jurnal Legislasi Indonesia* 14, no.3 (2017): 301.

do not have to be strictly maintained. However, the concept of the right to human intellectual ability is not always private or closely attached to a person or its owner. Traditional society also recognises the concept of the emergence of intellectual ability. There are differences regarding rights, where the right holders do not claim that their creation is not always an individual right. Sometimes the right to intellectual ability is claimed as a communal right or a common right. In other words, the elements of IPR have shifted in a way in which, *first*, property rights are the result of thought (intellectual), inherent to the owner, both individual and communal, permanent and exclusive. Second, the rights are obtained by other parties with the permission from the owner (temporary), including the right to advertise, reproduce, use certain products, or the right to produce specific products.

Despite many arguments against the inclusion of communal rights to traditional knowledge within the IPR regime, some countries pioneered by Brazil and Latin American countries, such as Panama, Peru, have succeeded in establishing laws that protect the rights of indigenous peoples (*populations*) to traditional knowledge, while providing access for outsiders to deepen and use such traditional knowledge with the obligation to obtain approval and make agreements from the community as regulated in the Law.¹²

The fact that both international law and institutions still hold uncertain and controversial view towards the intellectual property legal regime in general, especially patents globally, gives a sense that laws and institutions are made and/or controlled by countries that possess the power and influence of commercial and industrial interests (as contained in the agreements related to the Trade aspect of IPR regulated by the WTO. Ultimately, it must uphold the view that the IPR regime, particularly patents, is the most effective instrument for preserving traditional knowledge rooted in biodiversity and owned by indigenous peoples.¹³

D. Identification of Tenganan Village Traditional Knowledge with its Potential for Communal Intellectual Property Rights (IPR)

The indigenous people of Tenganan Bali have lived in a beautiful place located between Kangin hill on the east side and Kauh hill on the west side for approximately a hundred years. The Tenganan indigenous people remain very conservative in maintaining the cultural heritage of their ancestors, and they adhere to awig-awig as their legal basis. Given that the elements of traditional knowledge have been derived from natural resources that are potential as IPR, based on article 8(j) of the *Convention on Biological Diversity*, it is found that the indigenous people of Tenganan have the traditional knowledge that can potentially be categorised as IPR. This

12 Terri Janke, *et. al.*, *Comparative Study of Existing Genetic Resources (GR), Traditional Knowledge (TK) and Traditional Cultural Expressions (TCE)*, (Australia 2021), 23.

13 Mike W. Peng, *et. al.*, "History and the Debate Over Intellectual Property," *Management and Organization Review* 13, no. 1 (2017): 15–38, <https://doi.org/10.1017/mor.2016.53>.

potential includes the following:

1. Traditional Knowledge in the Field of Arts

A traditional dance is an art that can be categorised under this type of traditional knowledge. In the context of communal intellectual property, according to the perspective of *the Convention on Biological Diversity*, art is one of the parts of traditional knowledge because this type stores multi-dimensional knowledge, both from anthropological and metaphysical perspectives. The Makare-kare dance, better known as the Pandan war dance, is one of the traditional dances of the indigenous people of Tenganan. The art of makare-kare dance, also performed by the Balinese indigenous people of Aga Tenganan Pengringsingan, is presented as the final part of the series of ceremonies of respect, called *Ngusaba sambah* ceremony. This dance is presented as an offering to the God Indra, as believed by the indigenous people of Tenganan Pengringsingan

The Makare-kare dance or pandan war dance represents a war involving men with pandan mat leaves / pandan thorns (*Pandanus tectorius*) as their weapons. In this performance, the men hit their opponents' backs with spiny pandan leaves, leaving them with wounds. This performance represents the courage of men, showing that they should show no fear.

2. Traditional Knowledge in the Field of Production

Tenganan Village is well known for the peculiarities of the woven fabrics. Interviews with Gringsing fabric weavers, often known as Pengringsingan, reveal that their weaving is characterised by distinctive patterns, predominantly featuring black and red. Philosophically, the word "Gringsing" consists of two syllables: *Gring* means "Sick" and the word *Sing* means "no." Altogether, it is interpreted as not being sick, refusing to get sick, or avoiding getting sick. In other words, the indigenous people of Tenganan are very concerned about health, and *gringsing* cloth comes as a solution to overcome illnesses.

The knowledge of making *gringsing* fabric by manual weaving with the double tie technique and other particular methods has been inherited through generations and remains upheld to this day. The complete process of making *gringsing* fabric requires human hands and takes 2-5 years to finish. *First*, the process starts with yarn made from kapok, hand-spun with a traditional spinning tool. The yarn used is obtained from a single-stranded kapok delivered from Nusa Penida, where a special type of kapok is grown. *Second*, the yarn is soaked in hazelnut oil and left to sit for at least 40 days or up to one year to produce a strong and soft yarn.¹⁴ The hazelnuts (*Moluccana Aleurites*) used are cropped directly from the forest of Tenganan. To create good *gringsing* clothes, perfectly ripe hazelnuts must be used. This perfect ripeness is indicated by the fruit that has fallen from its tree. The hazelnut oil is changed every 29 or 49 days to give the

14 Rr. Chandrarezky Permatasari, and Niken Savitri, "Kajian Estetik Pengolahan Motif Kain Gringsing Sebagai Elemen Dekoratif Pada Rosemoon Boutique Hotel Bali," *Narada: Jurnal Desain & Seni* 5, no. 3 (2018): 325.

best results.¹⁵ *Third*, red and black colours are applied using a dyeing technique.¹⁶ The colouring material is usually obtained from local plants

3. Traditional Knowledge in the Field of Architecture

Architectural work refers to the art and science of designing and constructing buildings and bridges, among others, using methods and styles to design a building.¹⁷ The indigenous people of Tenganan have a housing and settlement architectural concept that represents the characteristics of the village. This characteristic is evident in the standard architectural styles of houses and settlements in the Tenganan village, as said by Ngorah. “Balinese Traditional Architecture” is an architectural style that has developed in Bali. Religious buildings, residential buildings, and public buildings that function socially¹⁸ are mostly imbued with the nuance of Hinduism, with its strong influence on the look of the local housing and settlements.

Most of the housing styles in the Tenganan community also represent the indigenous people of Tenganan (part of Bali Aga). The residential building and settlement styles follow the customary rules set by the ancestors of the Tenganan people. These rules have been passed and maintained from generation to generation to date. The coming and going tourists in Tenganan village do not spoil the existing tradition. Since the settlements of Tenganan village are influenced by the characteristics of Aga,¹⁹ the village is divided longitudinally into three parallel roads, in a north-south direction: *Banjar Kauh*, Central *Banjar*, and *Banjar Pande*, functioning as an open space for residents’ activities, with the *Banjar Kauh* located in the westernmost. *Banjar Kauh* is the central location where sacred ceremony activities usually take place. The further east the banjar sits, the more common this location is. According to the Perbekel of Tenganan I Putu Yudiana ST village, the easternmost side is designated for individuals who have made mistakes within the community. The leftmost side is adjacent to the cemetery. Such a location is intended to remind people of their death and encourage them to live wiser lives.²⁰

The housing in the Balinese people of Aga Tenganan has a peculiarity, where walls surround several buildings, erected on land along with their village property rights (customary rights), and lined up in the western part of the village (in the part of the banjar kauh with a system

15 N.K Seminari, I.N. Puja, A.A.A. Remawa, N.M.I Mulyati, “Kerajinan Kain Etnik Pengringsingan Di Desa Tenganan Kecamatan Manggis, Kabupaten Karangasem, Bali,” *Buletin Udayana Mengabdikan* 8, no.1 (2019): 120-121, <https://doi.org/10.24843/BUM.2019.v18.i01.p24>.

16 Cerkia Bramley, Estelle Biénabe and Johann Kirsten, “The Economics of Geographical Indications: Towards a Conceptual Framework for Geographical Indication Research” in *Developing Countries, Economics of Intellectual Property* (2024), 109

17 “Kamus Besar Bahasa Indonesia,” accessed 2 July 2021, <https://kbbi.web.id/arsitektur>.

18 I Made Lingga Prayoga, A.A. Ayu Oka Saraswati, “The Settlement Pattern of Tenganan Pegringsingan Village as an Embodiment of a Sustainable Village,” *Astrojando* 13, no 1 (2024): 67-73

19 I Gede Bagus Rae Indra, “Pengaruh Modernisasi Terhadap Bahan Bangunan Hunian Tradisional Di Desa Adat Tenganan, Kabupaten Karangasem, Bali,” *Jurnal Analisa* 8, no. 1 (February 2020): 6.

20 Interview with Perbekel of Tenganan I Putu Yudiana, ST, 2018.

of housing blocks turned to each other). Meanwhile, the layout of each house itself has been patterned with the arrangement of the road boundary (*banjar*). The front land functions as a yard called Bale Boga with the wall of Penyengker. Deeper, there are two offering places called *kemulan* and an intersection located right in the entrance of the house. Then, there is a larger building called *Bale Meten* and *Bale Tengah*. At the far back, there is the last building called *Paon*.

4. Traditional Knowledge in the Field of Medicine

Medicine is the science and art of healing that is necessary for the healing process. Medicine can refer to either medical or non-medical. The medical approach involves a medical procedure performed by a doctor or a healthcare professional to treat a disease.²¹ This approach may require the application of drugs or herbs. However, the community sometimes self-administers the drugs or herbs.²²

On the other hand, a non-medical approach or traditional medicine follows a series of traditional knowledge, skills, and practices sourced from theories, beliefs, and experiences of diverse customs, whether explained or not. Such traditional knowledge of medicine serves as a reference to maintain health, prevent certain diseases, treat diseases, and improve the treatment of both physical and mental diseases.²³ Traditional medicine encompasses (1) treatment using spiritual approaches and (2) herbal medicine-based treatment.²⁴ The criteria mentioned above imply that the medical knowledge belonging to the Tenganan indigenous people can be categorised as communal intellectual property. For example, the treatment of scratches on the back of participants caused by the ritual of *Makare kare* (the Pandan War dance) can be healed with herbal substances concocted from natural ingredients, such as liquor from *Nira*, turmeric, galangal, and other spices.²⁵ Producing herbal substances has been around in the indigenous community of Tenganan for generations.

E. The Efforts of the Indonesian Government to Protect Intellectual Property Rights (IPR) of Traditional Knowledge

Indonesia is an archipelagic country, home to multiple tribes. Each tribe has diverse customs, arts, and culture, which potentially carry traditional knowledge. This extraordinary cultural

21 Astria Susanti Landang, Femy Anggriyani, "Protection of Patients' Rights in Receiving Medical Information at the Kanjuruhan Regency," *Journal of Medical Records and Health Information* 3, no. 1 (January 2022): 14-21, <https://doi.org/10.58535/jrmik.v3i1.38>.

22 I Wayan Gede Suardika, Amesti Dewi, Ni Made Wahyuni Amesti Dewi, and Fitria Megawati, "Artikel Review: Penggunaan Obat Herbal Dalam Upaya Swamedikasi atau Pengobatan Sendiri Pada Penyakit Batuk Dan Flu," *Usadha* 2, no. 2 (2023): 9-18, <https://doi.org/10.36733/usadha.v2i2.5972>.

23 "World Health Organization 2000," <https://www.who.int/>.

24 *Ibid.*

25 Interview with the Head of Tenganan Traditional Village I Putu Ardana.

potential, in essence, serves as a national asset that must be protected, preserved and developed through state authority because these varieties carry a very high economic value useful for citizens.

The discussion of traditional knowledge at the international level has a crucial point because it not only discusses knowledge that lives in traditional society, but it also has entered the stage in which this traditional knowledge exists in the trade cycle; therefore, it needs to pay more attention to the aspects of IPR, their commercialisation, and how to protect them. Of course, this creates a convergence of status, considering that traditional knowledge is included in the scope of intellectual works, which arise from the ideas and inventions of a group of people in a country. Traditional knowledge encompasses a wide range of elements, including tradition-based literature, artistic and scientific works, performances, inventions, scientific discoveries, designs, brands, symbols, and information that is not disclosed, as well as all innovations and tradition-based creations. These tradition-based ideas, which refer to innovation, and cultural expression that are generally passed down from generation to generation and are considered to be closely related to a particular community or region, have been developed in a non-systematic manner, carried out continuously as a response to their ever-changing²⁶ environment. While IPR protection, in principle, provides a monopoly principle to the owner of the idea or the holder of IPR, and through this monopoly right the owner and/or holder of the IPR can enjoy, benefit, and manage the economic impact of the IPR, it is considered that traditional knowledge cannot be included in the IPR regime. This is evident that some forms of IPR Law cannot protect traditional knowledge and local wisdom.

Efforts to protect traditional knowledge are unstoppable and have brought a fresh air through article 8(j) of the *United Nations Convention on Biological Diversity*, which was later ratified through Law No. 5 of 1994 concerning the Ratification of the Convention on Biological Diversity. The convention asserts that the signatories of the convention are obliged to respect, protect, and preserve knowledge, innovations, and practices in indigenous and local communities, which reflect traditional lifestyles, in accordance with the conservation and sustainable use of biodiversity, and promote its wider application by the consent and involvement of the owners of such knowledge. Innovation and practices encourage a fair share of the profits resulting from the utilisation of knowledge and innovation.

The World Intellectual Property Organization (WIPO) defines traditional knowledge as follows: “*The knowledge, know-how, skills, and practices that are developed, maintained and passed down from generation to generation within a community, are often part of its*

26 WIPO, *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore*, WIPO/GRTKF/IC/3/9, 20 May 2002 (2002), 11.

cultural or spiritual identity”²⁷. According to the WIPO document, traditional knowledge is not limited to one exclusive knowledge but encompasses an extensive range of knowledge, which distinguishes traditional knowledge from other knowledge. Traditional knowledge, according to WIPO, is classified into agricultural knowledge, scientific knowledge, ecological knowledge, knowledge of medicines, including medicine and healing, biodiversity-related knowledge, expressions in the fields of music, dance, song, handicrafts, elements of language, and moving cultural objects.²⁸

The protection model developed by WIPO generally describes two protection models, namely defensive protection and positive protection. Defensive protection aims to prevent the provision of IPR on traditional knowledge by other parties without the knowledge and permission of the traditional knowledge owner. Defensive protection of traditional knowledge affects patent registration in terms of the obligation to disclose the origin of genetic resources and/or traditional knowledge related to the invention. Positive protection, on the other hand, takes two forms of legal remedies: by making effective use of laws pertaining to IPR today and through the establishment of special laws. The protection of traditional knowledge in this form is still a time-consuming process because it requires a complex procedure and maximum government involvement in addressing this issue. As Wheeler notes, the state can develop collective capacity for enforcing human rights through effective legislative and institutional interventions.²⁹ This aligns with what was formulated by Jimly Assidique regarding the 27 human rights, in point 20, stating that the state guarantees respect for cultural identity and the rights of traditional communities in line with the changing time and the level of civilisation of the nation.³⁰

Conclusion

The results of the study conclude that biological natural resources are not only used by the people of Tenganan to meet their basic food needs. Upon identification, article 8(j) of the *Convention on Biological Diversity* highlights four categories of traditional knowledge in community life activities, including knowledge in the field of art, knowledge in the field of production, knowledge in the field of architecture, and knowledge in the field of medicine. Traditional knowledge in the Tenganan community needs to be recorded to protect communal

27 WIPO, “World Intellectual Property Organization,” accessed March 25, 2022, <http://www.wipo.int/tk/en/tk/index.html>.

28 Emilda Kuspraningrum, “Perlindungan Terhadap Hak Masyarakat Adat Selaku Pengemban Pengobatan Herbal Tradisional menurut Perspektif Hak Kekayaan Intelektual dan Pengetahuan Tradisional” (Phd. diss. Universitas Mulawarman, 2020).

29 UNDP, “Protecting Human Rights in the Constitution,” <https://www.undp.org/sites/g/files/zskgke326/files/2023-10/undp-protecting-human-rights-in-constitutions.pdf>

30 Jimly Asshiddiqie, *Konstitusi dan Konstitusionalisme Indonesia* (Sinar Grafika, 2011), 85.

IPR in Indonesia.

BIBLIOGRAPHY

Books

Asshiddiqie, Jimly. *Konstitusi dan Konstitusionalisme Indonesia*. Sinar Grafika, 2011.

Bramley, Cerkia, Estelle Biénabe and Johann Kirsten. "The Economics of Geographical Indications: Towards a Conceptual Framework for Geographical Indication Research" in *Developing Countries, Economics of Intellectual Property*. 2024.

Janke, Terri, et. al. *Comparative Study of Existing Genetic Resources (GR), Traditional Knowledge (TK) and Traditional Cultural Expressions (TCE)*. Australia 2021.

Ruta, I Made, et. al. *Parigi-Gringsing-Slonding Desa Swabudaya Tenganan*. Pusat Penerbitan LP2MPP Institut Seni Indonesia Denpasar, 2022.

WIPO. *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, WIPO/GRTFK/IC/3/9, 20 May 2002*. 2002.

Article Journals

Alfons, Maria. "Implementasi Hak Kekayaan Intelektual Dalam Perspektif Negara Hukum." *Jurnal Legislasi Indonesia* 14, no.3 (2017)

Indra, I Gede Bagus Rae. "Pengaruh Modernisasi Terhadap Bahan Bangunan Hunian Tradisional Di Desa Adat Tenganan, Kabupaten Karangasem, Bali." *Jurnal Analisa* 8, no. 1 (February 2020).

Iswari, Ida Ayu Kartika Pradnyaniti Nila, et. al. "Sistem Kepemimpinan Desa Adat Tenganan Pegringsingan, Manggis, Karangasem Dan Potensinya Sebagai Sumber Belajar Sosiologi Di SMA." *Edusocius Jurnal Ilmiah Penelitian Pendidikan Dan Sosiologi* 6, no. 2 (Oktober 2022).

Landang, Atria Susanti, Femy Anggriyani. "Protection of Patients' Rights in Receiving Medical Information at the Kanjuruhan Regency." *Journal of Medical Records and Health Information* 3, no. 1 (January 2022): 14-21. <https://doi.org/10.58535/jrmik.v3i1.38>

Mahendra, I Gede, et. al. "Pengaturan Pengelolaan Hutan Di Atas Tanah Hak Milik di Desa Tenganan Pegringsingan." *Kertha Negara: Journal Ilmu Hukum* 3, no.1 (2015).

Nepal, Tej Kumar. "The Place of Spirituality in Traditional & Scientific Ecological Knowledge." *Asian Journal of Language, Literature and Culture Studies* 7, no.1 (2024).

Nova, Sri Asih Roza. "Perlindungan Hukum Terhadap Pengetahuan Tradisional Di Indonesia Dari Tindakan Misappropriation." *UNES Journal of Swara Justisia* 6, no. 4 (2023): 433.

<https://doi.org/10.31933/ujsj.v6i4.295>.

Peng, Mike W., et. al. "History and the Debate Over Intellectual Property." *Management and Organization Review* 13, no. 1 (2017): 15–38. <https://doi.org/10.1017/mor.2016.53>.

Permatasari, Rr. Chandrarezky, and Niken Savitri. "Kajian Estetik Pengolahan Motif Kain Gringsing Sebagai Elemen Dekoratif Pada Rosemoon Boutique Hotel Bali." *Narada: Jurnal Desain & Seni* 5, no. 3 (2018).

Prayoga, I Made Lingga, A.A. Ayu Oka Saraswati. "The Settlement Pattern of Tenganan Pegringsingan Village as an Embodiment of a Sustainable Village." *Astrojando* 13, no 1 (2024).

Purnamawati, I Gusti Ayu. "Perlindungan Hukum Indikasi Geografis terhadap Kerajinan Tradisional untuk Penguatan Ekonomi Wilayah." *Pandecta* 11, no. 1 (June 2016).

Seminari, N.K, I.N. Puja, A.A.A. Remawa, N.M.I Mulyati. "Kerajinan Kain Etnik Pengringsingan Di Desa Tenganan Kecamatan Manggis, Kabupaten Karangasem, Bali." *Buletin Udayana Mengabdi* 8, no.1 (2019): 120-121. <https://doi.org/10.24843/BUM.2019.v18.i01.p24>.

Suardika, I Wayan Gede, Amesti Dewi, Ni Made Wahyuni Amesti Dewi, and Fitria Megawati. "Artikel Review: Penggunaan Obat Herbal Dalam Upaya Swamedikasi atau Pengobatan Sendiri Pada Penyakit Batuk Dan Flu." *Usadha* 2, no. 2 (2023): 9-18. <https://doi.org/10.36733/usadha.v2i2.5972>.

Swerdfager, Trevor, and Andrea Olive. "Laws matter: a foundational approach to biodiversity conservation in Canada," *Facets* 8 (2023): 9. <https://doi.org/10.1139/facets-2022-0095>.

Yadav, Parveen, and Saroj Bohra. "Traditional Knowledge: Penetrating Intellectual Property." *Journal of Intellectual Property Rights (JIPR)* 27, no. 6 (2022): 428. <http://op.niscpr.res.in/index.php/JIPR/article/view/63620>.

Dissertation

Kuspraningrum, Emilda. "Perlindungan Terhadap Hak Masyarakat Adat Selaku Pengemban Pengobatan Herbal Tradisional menurut Perspektif Hak Kekayaan Intelektual dan Pengetahuan Tradisional." Phd. diss. Universitas Mulawarman, 2020.

Laws and Regulations

United Nations Convention on Biological Diversity

Law No. 5 of 1994 concerning the Ratification of the Convention on Biological Diversity,

Internet Articles

“Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Foklore (IGC GRTKF).” <https://www.wipo.int/tk/en/igc/>.

“Kamus Besar Bahasa Indonesia.” Accessed July 2, 2021. <https://kbbi.web.id/arsitektur>.

“World Health Organization 2000.” <https://www.who.int/>.

UNDP. “Protecting Human Rights in the Constitution.” <https://www.undp.org/sites/g/files/zskgke326/files/2023-10/undp-protecting-human-rights-in-constitutions.pdf>.

WIPO. “World Intellectual Property Organization.” Accessed March 25, 2022, <http://www.wipo.int/tk/en/tk/index.html>.