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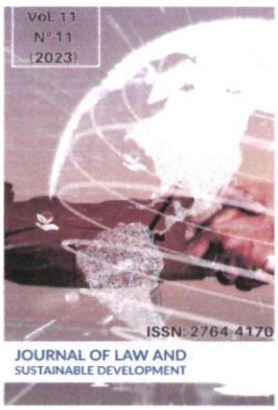

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AN OVERVIEW OF LEGAL MEASURES TO PREVENT AND PROTECT UNREASONABLY THE USE OF TRADITIONAL MEDICINE IN INDONESIA

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ABSTRACT

Objective: Indonesia, safeguarding traditional medicinal knowledge is paramount, offering cultural, social, and economic dividends. In Indonesia, the legal status of herbal plants and their processed derivatives remains ambiguous. The inherent nature of traditional knowledge, passed down through generations with often unknown origins, contrasts starkly with patent prerequisites. Thus, it is imperative to preempt and address the unwarranted exploitation of Indonesia's traditional medicinal knowledge through strengthened legal measures.

Method: This study employs a normative legal research methodology, focusing on the examination of positive law through literature review. Normative legal research typically relies on library materials or secondary legal materials as primary sources.

Result: Traditional knowledge, deeply embedded in Indonesia's cultural fabric, finds its protection lacking within the current Intellectual Property Rights (IPR) framework. International agreements, like the Convention on Biological Diversity, underscore the significance of safeguarding such knowledge, yet Indonesia's first-to-file patent system often falls short. There's an urgent need for robust regulations to prevent misuse and ensure this invaluable knowledge remains preserved for future generations.

Conclusion: Traditional knowledge represents more than just practices and beliefs; it is an invaluable national treasure for Indonesia.

Keywords: traditional knowledge, traditional medicine, intellectual property rights, legal protection, normative legal research.

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UMA VISÃO GERAL DAS MEDIDAS LEGAIS PARA PREVENIR E PROTEGER INJUSTIFICADAMENTE O USO DA MEDICINA TRADICIONAL NA INDONÉSIA

RESUMO

Objetivo: Indonésia, a salvaguarda dos conhecimentos medicinais tradicionais é primordial, oferecendo dividendos culturais, sociais e econômicos. Na Indonésia, o estatuto jurídico das plantas à base de plantas e dos seus derivados transformados continua a ser ambíguo. A natureza inerente do conhecimento tradicional, transmitido por gerações com origens muitas vezes desconhecidas, contrasta fortemente com os pré-requisitos das patentes. Assim, é imperativo prevenir e combater a exploração injustificada do conhecimento medicinal tradicional da Indonésia através de medidas legais reforçadas.

Método: Este estudo emprega uma metodologia normativa de pesquisa jurídica, com foco no exame de direito positivo através da revisão da literatura. A pesquisa legal normativa normalmente depende de materiais de biblioteca ou materiais legais secundários como fontes primárias.

Resultado: O conhecimento tradicional, profundamente enraizado no tecido cultural da Indonésia, encontra falta de proteção dentro da atual estrutura de Direitos de Propriedade Intelectual (DPI). Os acordos internacionais, como a Convenção sobre a Diversidade Biológica, sublinham a importância de salvaguardar esse conhecimento, mas o primeiro sistema de patentes da Indonésia é muitas vezes insuficiente. Há uma necessidade urgente de regulamentações robustas para evitar o uso indevido e garantir que esse conhecimento inestimável permaneça preservado para as gerações futuras.

Conclusão: o conhecimento tradicional representa mais do que apenas práticas e crenças; é um tesouro nacional inestimável para a Indonésia.

Palavras-chave: conhecimento tradicional, medicina tradicional, direitos de propriedade intellectual, proteção jurídica, pesquisa jurídica normative.

1 INTRODUCTION

Indonesia, boasting the world's second-largest biodiversity and ranking 39th in cultural diversity, is a treasure trove of unique biological and cultural resources. This vast biodiversity encompasses three distinct levels: genetic, species, and ecosystem (Ayu et al., 2014). Among these biological riches are valuable commodities such as forest products, diverse tree species utilized for timber and non-timber purposes, products derived from wild animal species, and a plethora of flora and fauna with medicinal properties. Indigenous communities have, for generations, harnessed these resources for traditional medicinal practices, rooted in deep-seated Indonesian knowledge passed down through the ages.

Traditional knowledge, a culmination of intellectual endeavors and human insights, manifests in various forms, including science, art, and literature. It bifurcates into two primary domains: knowledge pertaining to biodiversity, encompassing medicinal practices, and knowledge related to the arts (A. Purba et al., 2015). Aligning with the definition of

"creation" in Article 1 Number 3 of Law Number 28 of 2014 on Copyright, traditional knowledge can be aptly categorized under Intellectual Property Rights. As per the Regulation of the Minister of Law and Human Rights Number 13 of 2017 on Data on Communal Intellectual Property, traditional knowledge is an intellectual construct, nurtured, evolved, and preserved by specific groups, intertwining science, technology, and cultural heritage.

The World Health Organization (WHO) champions the integration of traditional medicine for holistic public health, disease prevention, and therapeutic interventions. Such endorsements from global bodies amplify the prospects for traditional medicine in Indonesia. However, to truly harness Indonesia's potential in this domain, rigorous research is imperative to unveil novel findings that can be of societal and national significance. A prevalent lack of intellectual property awareness often deters individuals from capitalizing on the commercial potential of traditional medicinal knowledge. Yet, this void is perceived by pharmaceutical giants in developed nations as a lucrative opportunity.

Historical instances include the German patenting of an active turmeric constituent and the U.S. patenting of an active temulawak component for anti-cancer and cardiac therapies. Despite rat root's longstanding use in Indonesia for cancer treatments, it has been extensively cultivated in Malaysia without requisite permissions. Similarly, the brotowali plant, a staple in Indonesian traditional medicine, was patented by a Japanese enterprise. Numerous other indigenous plants and spices, like Sambiloto and Javanese chilies, have faced similar fates (Lindsey et al., 2003). Such trends underscore the propensity of developed nations to appropriate traditional knowledge from developing countries, subsequently patenting and commercializing it without obtaining proper consents, leaving the original knowledge bearers bereft of due benefits.

Intellectual Property Rights, invaluable assets in today's globalized world, necessitate heightened public awareness. Patents, a subset of these rights, safeguard technological innovations, spanning food technology, machinery, and pharmaceuticals. For Indonesia, safeguarding traditional medicinal knowledge is paramount, offering cultural, social, and economic dividends. Internationally, the protection of traditional knowledge has been a focal point of discussions for approximately four decades, culminating in landmark agreements like the Convention on Biological Diversity and the Nagoya Protocol (Rohaini, 2016). Indonesia has ratified these international conventions, underscoring its commitment to preserving its rich heritage.

In the trade arena, Indonesia's ratification of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) within the World Trade Organization framework mandates alignment with global principles, necessitating an expansion of the national Intellectual Property Rights framework (A. Z. U. Purba, 2005). A prevalent notion posits that developed nations leverage the Intellectual Property Rights system to safeguard their trade interests. However, this perspective is not absolute, as nations endowed with natural resources can also benefit, contingent on their proactive engagement with the Intellectual Property Rights system.

The legal protection of intellectual constructs birthed by local communities is a burgeoning area within Intellectual Property Rights studies. Such constructs encompass a spectrum, from traditional knowledge systems to artistic creations (Yusuf & Hasima, 2018). In Indonesia, the legal status of herbal plants and their processed derivatives remains ambiguous. The inherent nature of traditional knowledge, passed down through generations with often unknown origins, contrasts starkly with patent prerequisites like novelty, inventive steps, and industrial applicability. The dearth of comprehensive documentation and a general unawareness of age-old wisdom pose challenges in devising a robust protection system for traditional knowledge (Finger & Schuler, 2004).

Given the backdrop delineated above, and in light of the existing legal frameworks, it is imperative to preempt and address the unwarranted exploitation of Indonesia's traditional medicinal knowledge through strengthened legal measures.

2 LITERATURE REVIEW

2.1 INTELLECTUAL PROPERTY RIGHTS

Property is defined as ownership that cannot be exercised by another without the owner's consent. The term "intellectual" refers to activities rooted in creativity and intellect, manifesting in literary, artistic, scientific works, and inventions as intangible objects. Intellectual Property Rights (IPR) arise from creative endeavors involving human cognition, which, when shared with the broader community, add value due to their economic significance (Brahma & Subrahmanyam, 2023; Djumhana & Djubaedillah, 1997). These rights span technology, science, art, and literature.

IPR can be bifurcated into copyrights and industrial property rights. Copyrights grant creators exclusive rights to publish, reproduce, or authorize their work within legal confines (Saidin, 2010). In contrast, patents, brands, industrial designs, and other similar

rights fall under industrial property rights. Notably, while "Intellectual Property Rights" is a commonly used term, "Industrial Property Rights" specifically pertains to industry and knowledge, emphasizing their industrial applicability (Gautama, 1990).

2.2 LEGAL PROTECTION

Previous research posits that legal protection aims to shield human rights from violations and ensures individuals can exercise their rights as granted by law. This protection seeks to defend individual interests by allocating power (Satjipto, 2000). Roscoe Pound's theory emphasizes the law's role as a tool to identify and adjust intersecting societal interests, aiming to mitigate disputes and minimize losses (Tanya et al., 2010). Legal protection, in the context of IPR, seeks to ensure inventors' ideas and works are safeguarded from unauthorized use, recognizing the effort, time, and resources invested in their creation.

2.3 PATENTS

The World Intellectual Property Organization (WIPO) describes a patent as a legally enforceable right, granted for a limited period, to an inventor for a novel invention. This right allows the inventor to exclude others from certain actions related to the invention (Purwaningsih, 2005). As per Law Number 13 of 2016, Indonesia operates on a "first to file" system for patents, emphasizing that patent rights can only be granted following a formal application to the Directorate General of Intellectual Property Rights.

2.4 TRADITIONAL KNOWLEDGE

The Convention on Biological Diversity's Article 8(j) defines traditional knowledge as the cumulative wisdom, innovations, and practices of local communities worldwide. This knowledge, often orally transmitted across generations, encompasses experiences, cultural norms, beliefs, rituals, and more. It is integral to various sectors, including agriculture, fisheries, and health. Traditional knowledge can be categorized into knowledge related to biodiversity and traditional cultural expressions. Biodiversity, especially in the form of genetic resources, holds immense value across ecological, genetic, social, economic, and cultural dimensions.

3 METHOD

This study employs a normative legal research methodology, focusing on the examination of positive law through literature review (Husen et al., 2023). Normative legal research typically relies on library materials or secondary legal materials as primary sources (Huda et al., 2018).

Through the examination of secondary data derived from literature studies, insights and knowledge are gained, enabling a comprehensive understanding of concepts pertinent to the theme of this legal research. The objective of this study is to analyze one or more legal phenomena. The research utilizes the statute approach, which involves a thorough examination of legislation or regulations relevant to the research problem (Saputra & Dhianty, 2022).

This study draws from both primary and secondary legal materials:

1. Primary Legal Materials

The primary legal materials used in this research are:

a. The 1945 Constitution of the Republic of Indonesia;

b. Law Number 5 of 1994 concerning Ratification of the United Nations Convention Concerning Biological Diversity (State Gazette of the Republic of Indonesia of 1994 Number 41, Supplement to State Gazette of the Republic of Indonesia Number 3556);

c. Law Number 7 of 1994 concerning Ratification of the Approval for the Establishment of the World Trade Organization (State Gazette of the Republic of Indonesia of 1994 Number 57, Supplement to the State Gazette of the Republic of Indonesia Number 3564);

d. Law Number 13 of 2016 concerning Patents (State Gazette of the Republic of Indonesia of 2016 Number 176, Supplement to the State Gazette of the Republic of Indonesia Number 5922);

e. Law Number 5 of 2017 concerning the Advancement of Culture (State Gazette of the Republic of Indonesia of 2017 Number 104, Supplement to the State Gazette of the Republic of Indonesia Number 6055).

2. Secondary Legal Materials

Secondary legal materials, as a support in publications about law which are not official documents include: books, legal dictionaries, modules, legal journals, and scientific works such as theses which are relevant to this research.

The collection of primary legal materials and secondary legal materials in this study used the library study method. Literature study is carried out by reading, making notes, analyzing, and identifying legal materials obtained from libraries, searching through internet media, or written sources from agencies that are related and can support the writing of research.

The legal materials collected in this study were analyzed by examining, criticizing, supporting, or providing opinions to answer the problems formulated. The results of the analysis of legal materials are then discussed to gain an understanding of the problems formulated. From this discussion, conclusions can be drawn as arguments that answer the legal issues discussed. The conclusion describes what should be done and how it can be implemented.

4 RESULT AND DISCUSSIONS

4.1 ARRANGEMENTS FOR THE LEGAL PROTECTION OF KNOWLEDGE OF TRADITIONAL MEDICINES AS A FORM OF CULTURAL HERITAGE

Communal Intellectual Property (hereinafter referred to as KIK) includes Traditional Cultural Expressions (hereinafter referred to as EBT), Traditional Knowledge, Genetic Resources (hereinafter referred to as SDG), and Potential Geographical Indications. Traditional knowledge in a broad sense includes knowledge; agriculture, scientific knowledge, technological knowledge, ecological knowledge, medical knowledge (including drugs and related medical procedures), knowledge related to biodiversity, among others; EBT (expressions of folklore) in the form of music, dance, singing, handicrafts, designs, fairy tales, works of art, linguistic aspects such as names, geographical indications and symbols, and "movable" cultural objects (Anggraeni, 2019). Not included in the scope of traditional knowledge, namely items that are not the result of intellectual activity in the fields of industry, scientific knowledge, literature or artistic fields such as human fossils, language in general, "heritage" in a broad sense.

Traditional medicine is defined by the World Health Organization (hereinafter referred to as WHO) as the sum total of knowledge, skills and abilities based on the theories, beliefs and experiences of local people from various cultures, whether explained explicitly or not, which used to maintain health, including the prevention, diagnosis, cure or treatment of both physical and mental illness (World Health Organization, 2023).

Traditional knowledge cannot be separated from local people, they have used biodiversity as medicinal ingredients for centuries to cure disease and maintain health.

One example of the existence of traditional medicinal knowledge can be found in the book Centini in 1814, found in Java which contains a collection of ancient texts. The book on the properties of herbal medicine (Surat Kawruh) in 1831, which is one of the important texts for the history of traditional medicine in Indonesia, this book contains 1,164 prescriptions and medicinal formulas (Siddiq, 2018). Meanwhile, the Province of Bali has Lontar usada (usada taru pramana), which is one of the "ancient" knowledge in Bali which includes not only spells and healing rituals, but also descriptions of various diseases and various medicinal ingredients that use plants that grow on the mainland of Bali (Kurnianingrum, 2018).

"Babon Sasak" or the Sasak book is a book that contains guidelines for the implementation of daily life, also provides evidence of the existence of traditional medicinal knowledge. This book consists of 23 books, one of which is "Babon Tetamba/Oat" which contains biological resources for treatment, medical procedures, medicinal herbs, magical medicine, alternative medicine, and causes of disease based on traditional calculations (Martini et al., 2017). The traditional herb, known as jamu, has been used for centuries in Javanese culture. This can be seen in the reliefs of the Borobudur temple which depict medicinal plants that have medicinal properties and their processing into medicinal ingredients in the form of herbal medicine (Hilman & Romadoni, 2001). In a limited way, royal families in Java also have written documents regarding traditional medicinal knowledge. This is because the ability to write was only owned by the royal family, before the development of modern education in the 19th century.

The World Intellectual Property Organization (here in after referred to as WIPO) defines the owner/holder of traditional knowledge as any person who creates, develops and applies traditional knowledge in accordance with traditional rules and concepts. Local communities, local residents, and countries are owners of traditional knowledge, but not all traditional knowledge is genuine (World Intellectual Property Organization, 2001). Thus, communal interests take precedence over individual interests in the protection of traditional knowledge.

Traditional knowledge is recognized and protected under Article 11 and Article 13 of the United Nations (UN) Declaration on the Rights of Indigenous Peoples / The

United Nations Declaration on The Rights of Indigenous Peoples (hereinafter referred to as UNDRIP). Article 11 Paragraph (1) UNDRIP regulates the rights of local communities to carry out and preserve their cultural traditions and customs. Furthermore, according to Article 31 Paragraph (1) UNDRIP local communities also have the right to preserve, manage, maintain and promote their cultural heritage, traditional knowledge and EBT. Then Article 31 continues: As well as scientific, technological and cultural achievements, including SDGs, seeds, medicines, knowledge about the diversity of flora and fauna, oral traditions, literature, design, sports and traditional games as well as visual and performing arts. States must take decisive action to recognize and protect the exercise of rights in relation to local communities.

The 1945 Constitution of the Republic of Indonesia (hereinafter referred to as the 1945 Constitution) also guarantees the rights of local communities to preserve and advance their traditional knowledge. This is stated in Article 32 Paragraph (1) and (2) and Article 33 Paragraph (3) of the 1945 Constitution. Article 32 Paragraph (1) of the 1945 Constitution stipulates that the State is obliged to advance Indonesian national culture in the midst of global civilization by guaranteeing people's freedom to preserve and develop the values cultural values. Article 32 Paragraph (2) of the 1945 Constitution states that the State recognizes and respects regional languages as national cultural assets. The philosophical basis of Article 33 Paragraph (3) of the 1945 Constitution states that the land, water and wealth contained therein are under the authority of the state and are used for the greatest possible the great prosperity of the people. Traditional knowledge and SDGs are part of Indonesia's natural wealth, thus the state, in this case the government, has the authority to maintain the utilization/use of this wealth so that it can be utilized for the benefit of the people.

The protection of local peoples' traditional knowledge, which is part of their cultural and intellectual property, is intrinsically linked to their ability to exercise territorial rights and self-determination. At the individual and collective levels, local communities have a stake in protecting the culture embodied in traditional knowledge (Graham & McJohn, 2005). Seeing the potential for large economic and cultural values, it is very important to protect traditional knowledge. Traditional knowledge requires recognition and legal protection that is able to maintain its ownership as a work of the nation world recognized. In addition, the protection of traditional knowledge is intended to prevent irresponsible exploitation by parties outside the stakeholders (stakeholders).

The urgency facing local communities is the appropriation and exploitation of their intangible cultural wealth. Currently, the use and development of traditional knowledge is not only limited to local communities, so that the ownership and use of traditional knowledge is not in accordance with the original purpose of its creation (Perangin-angin et al., 2020).

Positive legal instruments governing the protection of traditional knowledge related to the concept of cultural preservation are reflected in Law Number 5 of 2017 concerning the Advancement of Culture (hereinafter referred to as UUPK). This Law is a derivative of Article 32 Paragraph (1) of the 1945 Constitution, the Law was enforced with the aim of increasing cultural resilience and Indonesia's cultural contribution in the midst of global civilization so that the cultural identity of the people who have it does not disappear along with the extinction of traditional knowledge.

The object of promoting culture (hereinafter referred to as OPK) includes: (a) oral traditions; (b) manuscripts; (c) customs; (d) rites; (e) traditional knowledge; (f) traditional technology; (g) art; (h) language; (i) folk games; and (j) traditional sports. The OPK setting in UUPK limits the scope of traditional knowledge. This is because traditional knowledge is distinguished from oral traditions, manuscripts, customs, rites, traditional technologies, arts, languages and folk games which are all expressions of traditional culture. The scope of traditional knowledge includes crafts, clothing, health methods, herbal medicine, traditional food and drink, as well as knowledge and patterns of behavior related to nature and the universe. Traditional knowledge refers to all ideas and concepts in society that have local values as a result of real experiences in interacting with the environment, and are passed on to the next generation (Dewi, 2017).

UUPK unites regulations regarding knowledge in the fields of literature, arts, cultural traditions, agricultural knowledge, scientific knowledge, technical knowledge, ecological knowledge, and medical knowledge into one law. In addition, ways to protect traditional knowledge have also been regulated in this law. Maximum protection of traditional knowledge can be achieved by carrying out inventory forms, securing, maintaining, saving, and publishing.

Inventory of traditional knowledge consists of several stages namely; recording, documenting, establishing, and updating data through an integrated cultural data collection system. Inventorying is very important so that the process of promoting culture can produce a database that is very useful for its preservation. Everyone can record and

document traditional knowledge (Rohendi, 2015). The law also imposes recording and documentation obligations on the central and regional governments, in order to create a uniform and standardized system for integrated culture so that prior to being stipulated by the government it facilitates the verification and validation process. It is hoped that the integrated cultural data verification and validation process will become a standard and trusted reference for Indonesian cultural data. These data are collected in a system called Basic Cultural Data (Dapobud). The aim is to obtain factual data that can describe the overall condition of all entities (OPK, cultural heritage, institutional staff, and infrastructure) in an area (Direktorat Pelindungan Kebudayaan, 2021). The cultural data will be very useful for creative individuals who produce intellectual works in the fields of art, literature, science and technology.

Updating data can also be a form of safeguarding traditional knowledge, passing on traditional knowledge to future generations, and preserving traditional knowledge as a world cultural heritage. The purpose of safeguarding traditional knowledge is to prevent outsiders from claiming ownership of traditional knowledge (Paramita & Kasih, 2017). However, UUPK does not regulate other alternative forms of security for traditional knowledge. For example, some traditional knowledge is sacred and secret for the local community so it must be protected from misuse or inappropriate exploitation by either foreigners or Indonesian citizens themselves (Krumenacher, 2004). Technological progress and speed can result in misuse or inappropriate exploitation of traditional knowledge. The commercialization of traditional knowledge ignores the cultural and economic interests of local communities as owners.

Furthermore, the form of protection for traditional knowledge is maintenance so that it is not damaged, lost or destroyed. Preservation of traditional knowledge by maintaining its nobility and wisdom values, utilizing it in daily life, preserving its diversity, reviving and maintaining the cultural ecosystem for each traditional knowledge and passing it on to future generations. After maintenance, saving traditional knowledge is also carried out to protect traditional knowledge. Rescue is carried out by means of revitalization, repatriation and/or restoration (Sardjono, 2019).

Education or teaching of reading in the Bugis language is an interesting example of revitalization activities to observe. This activity arose when Robert Wilson from the United States performed Theater I La Galigo which was based on a book considered sacred to the Bugis (National Geographic Indonesia, 2016). The incident sparked

controversy about the ability of foreigners to stage the epic La Galigo. However, there is a valuable lesson to be learned from this incident, namely the emergence of the local community's desire to return to teaching how to read the Bugis script in the book. This activity aims to revitalize the use of the original letters of the Bugis language by re-teaching Bugis letters and the Bugis language to young children, who may not yet know the original letters of the regional language. Efforts to recognize regional scripts are important given the uniqueness of each script according to each region, many books and ancient manuscripts in ancient times regarding medical techniques, life guidance, medicinal herbs, etc. were written using regional scripts.

Another example of revitalization in the field of traditional medicine, in the midst of global efforts to find a cure for Covid-19, WHO opened space for the use of traditional herbal medicines as alternative medicine (Koran Sindo, 2020). Indonesia as a country that has a number of traditional medicines (empon-empon) can conduct research on traditional medicines which can be useful in treating Covid-19 sufferers. The use of traditional medicines is a form of revitalization to revive the use of traditional medicines, so far people tend to prefer the use of modern medicines.

Repatriation is an attempt to return cultural objects stored in other countries to their original communities or to museums -the local museum. While restoration is an effort to repair cultural heritage that has been damaged by weather or other factors. All of these actions are basically efforts to preserve OPK and culture itself.

The next form of protection is publication related to the inventory, security, maintenance and preservation of traditional knowledge. Publication is carried out with the aim of disseminating information to the public, both locally and abroad by utilizing various media. The purpose of this effort is intended so that culture is not limited only to its own region. Culture must be known by other people who are outside the area. If there is knowledge in Indonesian culture that can make a positive contribution to global civilization, it will be very beneficial for mankind (Sardjono, 2019).

Utilization of traditional knowledge is no less important in discussions about traditional knowledge. UUPK provides the greatest opportunity for people in Indonesia to utilize traditional knowledge. Utilization of traditional knowledge is used to build national character, strengthen cultural resilience, improve people's welfare, and increase Indonesia's active role in international relations (Handayani, 2019). In terms of traditional knowledge in the field of medicine, every Indonesian citizen is given the maximum

opportunity to conduct research based on this information, which can produce patentable inventions.

UUPK opens up great opportunities for the community to utilize OPK as a raw material in making a product. Utilization of OPK in the field of traditional knowledge, for example medicine, local communities/knowledge owners can become beneficiaries of benefit sharing as a result of OPK utilization. In the text of the Draft Law on Traditional Knowledge and Traditional Cultural Expressions, local communities can be used as a source of information in conducting pharmaceutical research, which can then produce pharmaceutical goods, including medicines protected by patents. In addition, large companies or foreign parties must obtain approval from public authorities before utilizing this traditional knowledge. Permits can be granted if the following requirements are met, namely; (1) there is prior informed consent; (2) there is a sharing of benefits arising from the utilization: (3) mentioning the origins of the OPK (acknowledgment) (Yulia, 2023).

Thus, the use of traditional knowledge in UUPK does not emphasize the benefit of local communities as owners of traditional knowledge. The use of traditional knowledge in UUPK further advances social functions for all Indonesian people. So that all traditional knowledge originating from the local community is considered as the common property of the Indonesian nation.

4.2 LEGAL PROTECTION OF KNOWLEDGE OF TRADITIONAL MEDICINES AS A FORM OF CULTURAL HERITAGE AND INDUSTRIAL OBJECTS

Indonesia has around 30,000 to 50,000 plant species. However, the use of SDGs for national development is only around 7,500 plants that can be used as medicinal plants (Republika, 2015). Indonesian society consists of hundreds of tribes with diverse customs, including traditional knowledge in the use of medicinal plants. This medical expertise is specific to each tribe based on the environmental conditions in which they live (Muktiningsih et al., 2001).

SDG piracy often hits countries with abundant biodiversity, which are usually developing countries. In 1995, 2 (two) United States scientists from the University of Mississippi obtained a patent for the use of turmeric (turmeric) in the treatment of certain wounds. This problem became a public concern, when an Indian research organization (India Council of Scientific and Industrial Research) filed an objection. The explanation behind this is because for thousands of years, the Indians have been using turmeric as a

treatment for wounds given evidence in the form of ancient Sanskrit manuscripts. In 1997, the patent was finally cancelled (Republika, 2016).

Indonesia has ratified the Agreement on Trade-Related Aspects of Intellectual Property Rights/TRIPs in the Agreement Establishing the World Trade Organization. As a consequence, the Indonesian state must adapt to the provisions of the international agreement, including expanding the scope of its national Intellectual Property Rights (hereinafter referred to as HKI) system (Wiradirja, 2013). The TRIPs agreement allows parties other than local communities as knowledge owners to master traditional medicinal knowledge, particularly through Plant Variety Protection (PVP) and patent provisions.

In the patent system, the protection of traditional medicinal knowledge is included in the scope of technological inventions (Djulaeka, 2015). These provisions can be found in Articles 27-34 of the TRIPs agreement, which regulate issues related to patents and traditional knowledge (World Trade Organization, 2005). In essence, patents must be accessible and can be enjoyed without any discrimination, regardless of the place of invention, the field of technology and the origin of the product. In addition, Member States shall prohibit the patenting of plants, animals, microorganisms and biological processes essential for the production of plants and animals, except non-biological processes and microorganisms. Then this concept is integrated into the patent system in Indonesia.

The patent system in Indonesia is regulated by Law Number 13 of 2016 concerning Patents (hereinafter referred to as the Patent Law). Patents as a type of industrial property rights are exclusive rights granted by the state to inventors for their inventions in the field of technology, which for certain period of time carry out his own invention or give permission to a third party to do so (Atsar & Fadlian, 2022). Invention is an Inventor's idea in an effort to solve specific problems in the field of technology which can take the form of a product or process, or improvement and development of a product or process. Patents are limited to the field of technology and do not include innovation in other fields (Pamuntjak, 1994). Industrial technology can be in the form of manufacturing processes and/or products obtained from work experience or the process of developing the application of a technology. This technology is divided according to the form of patents, namely product patents and process patents.(Wahyuni & Zainuddin, 2021)

In accordance with the Patent Law, there are two types of patents, namely ordinary patents and simple patents.(Jaelani et al., 2020) An invention is categorized as a simple patent because of its characteristics, namely not going through in-depth research and development. Even though the form, structure, construction or components are simple, they have practical uses, so they still have economic value and can be protected by law. Simple patents contain a single claim, and a substantive examination is carried out immediately without a request from the inventor. If this simple patent application is rejected, neither the license application nor the annual fee will be charged (Purwaningsih, 2005).

The exclusive right of a patent does not necessarily belong to the patent inventor, but the invention must be registered first. There are two kinds of patent systems for patent acquisition, namely: the first inventor system (first to invent system) and the first registrant system (first to file system) (Atsar & Fadlian, 2022). The Indonesian government uses a first-to-file system approach for patent registration, so that the rights and obligations of inventors are born when the invention has been registered with the Directorate General of Intellectual Property Rights (hereinafter referred to as the Director General of Intellectual Property Rights). Only patents that have been registered with the Director General of Intellectual Property Rights are listed in the General Register of Patents, and announced in the Patents Official Gazette that receive protection from the government. More specifically, it can be said that Indonesia implements a first-to-file system in absolute terms, because of the Patent Law, because there is no room for inventors who have not registered their inventions to file a counterclaim. and if it turns out that the invention has been registered by another party and has received a patent certificate (Wahyuni & Zainuddin, 2021).

However, the patent law still allows the party implementing an invention that is being patented for the same invention to continue to have the right to implement the invention as a "previous user" even though the same invention was later granted a patent (Wahyuni & Zainuddin, 2021). This does not apply if the party carrying out the invention based on the patented description, drawings, samples or other information about the invention. The Director General of Intellectual Property Rights issues a "Certificate of Previous User Information" whose term expires at the same time as the patent for the same invention. For applicants who have filed patent applications, the state will grant exclusive rights for a period of 20 years for ordinary patents and 10 years for simple

patents, starting from the time the administrative requirements are deemed fulfilled (Wahyuni & Zainuddin, 2021).

An exclusive right is a privilege granted to a patent holder for a limited period of time to engage in his own commercial implementation or to grant further rights to other parties under an agreement. Patents have the effect of driving commercialization. The essence of patent protection by the state is as an award and reward for an invention in the field of technology with a limited period of protection and validity. Patent protection is intended to provide protection for technological inventions while at the same time encouraging the development of new innovations.

Mean while, patent infringement is an infringement of exclusive rights and more specifically infringement of claims which can be interpreted as infringement based on the literal infringement of the claim (literary infringement) or infringement interpretation based on the doctrine of equivalence (test way, function, and result) (Purwaningsih, 2005). The use of exclusive patent rights may be permitted for educational, research, experimental or analytical purposes, as well as for bioequivalence tests or other types of testing, as long as they are not commercial in nature and do not harm the interests of the patent holder (Wahyuni & Zainuddin, 2021). Patent holders have the exclusive right to restrict other parties from reaping economic benefits from registered patents without consent. Patent holders can authorize other parties to carry out the intended invention through assignments and license agreements.

The urgency of forming adequate regulations to regulate traditional knowledge is assessed according to the function of law. Law is a set of rules that function as a tool to identify and adapt the diversity of intersecting societal interests by trying to limit the occurrence of conflicts and losses. The purpose of law is as a tool to prevent losses caused by disputes between various interests in society (Yulia, 2023).

The setting of traditional knowledge in the patent law is motivated by concern, because domestic and foreign inventors often exploit Indonesian traditional knowledge to produce new inventions without mentioning the source of this traditional knowledge. The purpose of including the origins of traditional knowledge in the description is to prevent other countries from recognizing traditional knowledge in the description in order to support Access Benefit Sharing (hereinafter referred to as ABS) or the sharing of benefits from the utilization of traditional knowledge and so that traditional knowledge is not recognized by other countries.

In fact, the patent law is in good faith to provide protection and prevent piracy of Indonesian traditional medical knowledge. Article 26 Paragraph (1) of the Patent Law stipulates that "if an invention is related to and/or originates from SDG and/or traditional knowledge, then the origin of SDG and/or traditional knowledge must be stated clearly and correctly in the description." This implies that inventors or patent applicants must honestly disclose the use of SDGs or traditional medicinal knowledge in the description of their invention. Article 26 Paragraph (1) of the Patent Law is a positive step to prevent piracy. However, disclosure has not been supported by international agreements in the field of IPR. The Patent Law regulates the distribution regarding the utilization of traditional knowledge Regarding the sharing of benefits from the utilization of traditional knowledge, the Patent Law devolves its regulation in accordance with statutory provisions and international agreements in the field of traditional knowledge (Perangin-angin et al., 2020).

Although the Patent Law regulates traditional knowledge, only traditional knowledge can be registered which relates to new inventions in the field of technology which contain inventive steps and can be applied in industry (Siddiq, 2018). Patents cannot be registered for traditional knowledge that is not related to new inventions in the field of technology. Thus, traditional knowledge is not necessary adequately protected by patent law.

The requirement of novelty cannot be fulfilled because there are certain obligations such as explicitly stating the date the invention was discovered, and novelty shows that the innovation is completely new, has never been previously disclosed to the public, and has never been known to the public (Wahyuni & Zainuddin, 2021). Whereas most of traditional knowledge, including traditional medicine, has been passed down from generation to generation, so the exact date of its discovery and the identity of the inventor is unknown. In addition, to prove the novelty of an invention, a prior art search is carried out, namely by tracing documents at the patent office to ensure that the technology being applied for has never been registered before. Where traditional medicinal knowledge is not synonymous with written record keeping culture, only some traditional knowledge is written down.

Unable to meet the inventive step requirements, an invention is considered to contain an inventive step if it is something that someone with certain technical expertise cannot predict. Testing with certain scientific methods is used to show an inventive step.

For example, tests based on pharmacological systematics are performed on certain drug formulations, to see if there is an inventive step. Traditional medicinal knowledge does not recognize scientific systematics in its development, considering that it is often discovered by accident. It was then developed based on experiences passed down from generation to generation without using current scientific methodologies, making it difficult to examine and verify the inventive steps.

It's hard to qualify as "industry applicable." In the patent registration document, the inventor is required to explain in detail (disclosed) how the invention will be applied and in what industry the invention will be used. This is intended to encourage the development of technological advances from before. Meanwhile, most of the knowledge of traditional medicine is not recorded in writing, so the disclosure of this information depends on the skill level of each individual.

In addition, the protection of IPR adheres to the territorial principle, meaning that traditional medicinal knowledge is only protected within the territory of the country where it is registered. This clause actually allows room for misappropriation to occur. Then in terms of the limited protection period, which is 20 years and cannot be extended, it will actually affect the local community if they patent their traditional medicinal knowledge, because traditional medicinal knowledge will lose its economic value after this period expires. The existence of a fee that must be paid to register the protection of traditional medicinal knowledge is a separate burden for the custodian.

A number of legal documents, such as the Convention on Biological Diversity (hereinafter referred to as CBD) and the Nagoya Protocol, regulate the protection of traditional knowledge outside of the IPR framework. Article 15 of the CBD says that there must be a fair and equitable benefit-sharing system for the results of research and development, as well as benefits derived from the use of SDGs, whether commercial or not. Distribution must be based on the Mutually Agreed Term (MAT) (Lubis, 2009).

There are several differences between the two international agreements that have been ratified by Indonesia, namely TRIPs and CBD, because the backgrounds for the formation of these agreements are different. The differences between these two international agreements include:

a. Relating to the ownership of biological resources. In the TRIPs agreement, biological resources are converted into objects that can be patented and owned by individuals or corporations (A. Z. U. Purba, 2005). Meanwhile, according to the

CBD, each country has sovereign rights over biodiversity, including genetic resources located in its territory, so that the state has the authority to accept or reject the patent (Jurkus et al., 2022).

b. TRIPs does not mention innovation and traditional knowledge owned by local communities, while CBD emphasizes the importance of protecting and utilizing traditional knowledge and conserving biodiversity (A. Purba et al., 2015).

c. Regarding disclosure and benefit sharing. TRIPs do not require disclosure of the origin of patented biological materials or benefit sharing with owners of biological resources (A. Purba et al., 2015). In contrast, the CBD limits access to living resources by demanding the consent and participation of local communities, where the living resources are located . In addition, the CBD also provides a legal framework regarding profit sharing between companies or individuals who utilize biological resources and owners of biological resources.

The current IPR framework has proven to be unsuitable for protecting traditional knowledge in the field of medicine against misuse by foreigners. Patents may be useful for protecting the economic aspects of traditional knowledge, but they are not sufficient to protect holistic knowledge systems. The subject of patent law is an individual and if an invention is produced jointly by many people, then the right to the invention is owned collectively. Whereas traditional knowledge is generally jointly owned by the local community, making it difficult to determine who is the subject of patent law. Traditional knowledge is informal, unwritten, and spontaneous which is clearly very different from the formal IPR regime. Formality in the IPR regime can be seen in the form of a patent application (patent application) which requires certain formal procedural requirements.

The Patent Law still allows for traditional knowledge in the field of medicine, which is produced by individual members of the public to become patented inventions. This is in accordance with the nature of traditional knowledge itself which continues to develop from time to time. Protection against inventions in the field of traditional medicines which are the development of existing products or processes in the form of products that not only differ in technical characteristics, but must have a function/use that is more practical than previous inventions because of their shape, configuration, construction, or components that include tools , goods, machines, compositions, formulas, compounds, or systems (Wahyuni & Zainuddin, 2021). In accordance with the elucidation of Article 3 of the Patent Law, simple patents are only granted for inventions in the form

of products, tools, processes and methods that are new and have practical uses compared to previous inventions. So that adjustments are still needed in the application of the patent system to protect traditional knowledge.

5 CONCLUSION

The protection of traditional Indonesian medicinal knowledge within the prevailing Intellectual Property Rights (IPR) framework remains insufficient. This inadequacy stems from the inherent differences between the characteristics of IPR and traditional knowledge. While IPR is rooted in principles of exclusivity, monopoly, and individualism, emphasizing private ownership, traditional knowledge embodies a contrasting ethos centered on collectivism.

Traditional knowledge represents more than just practices and beliefs; it is an invaluable national treasure for Indonesia. As such, it warrants robust protection and preservation. The essence of traditional knowledge, deeply intertwined with the cultural and historical fabric of Indonesia, necessitates legal safeguards that not only recognize its value but also defend the rights of local communities. These communities, as the custodians of traditional knowledge, are vulnerable to infringements by external entities.

To address these challenges, it's imperative to establish comprehensive legal instruments. These instruments should be adept at safeguarding the interests of local communities and preventing unauthorized exploitations. Furthermore, given the transnational nature of many issues related to traditional knowledge, an integrated approach is essential. This approach should harmoniously blend national and international legal frameworks, ensuring that the sanctity of traditional knowledge is upheld across borders.

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