Protective Strategies for the Ownership of Traditional Medicine Knowledge

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Abstract

This paper discusses the ownership of traditional medicine knowledge by drawing empirical data on the experience of the indigenous communities in Mentawai, Indonesia, and Sabah, Malaysia. For a long time, the acquisition of traditional medicine knowledge and the treatment of patients has been deemed the result of cultural heritage handed down from generation to generation. However, the complexity of the knowledge acquisition process and the skill displayed by the healer or kerei prove that traditional medicine knowledge qualifies as intellectual property. An appropriate protection strategy is identified based on the traditional knowledge ownership map in indigenous communities. This study reveals that not every traditional medicine knowledge and practices are "common properties". Therefore, the study suggests that traditional medicine knowledge, like any other intellectual properties, must be protected through intellectual property rights not only to protect the cultural and economic rights of indigenous people but also to protect the environment.

Keywords: *Traditional medicine knowledge, Indigenous people, Intellectual Property Rights, Sui generis, Mentawai and Sabah.*

Introduction

In general, the international community agrees that traditional knowledge plays a very important role within the community. This knowledge is important for both developed and developing countries where it is developed, preserved, and handed down from generation to generation. Although there is almost no disagreement on the need for the legal protection of such knowledge among law/policymakers, academics, NGOs, and indigenous people, there is no agreement on how it should be protected. One of the reasons is the difference in perception about the nature of ownership of traditional knowledge. The public considers traditional knowledge as a common heritage or property. The issue is whether traditional knowledge possessed by indigenous peoples is a public property that can freely be accessed to and obtained free of charge by anyone not a member of the community.

The academic debate regarding the ownership of traditional knowledge affects knowledge protection strategies. Without clear ownership of traditional knowledge, it will be very difficult to determine protective strategies. This is because the protection of traditional knowledge does not only sustain the knowledge but also how that knowledge can benefit its owners and society in general. Thus, the designed protection strategy is intended for fairness, expediency, and legal certainty.[1] As stated earlier, this paper discusses the ownership and protection of traditional medicine knowledge within indigenous communities in Mentawai (Indonesia) and Sabah (Malaysia).

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Owner of Medicine Knowledge

Traditional Medicine Knowledge owner is any person or group of persons within an indigenous community that develops medicinal knowledge and has the right and authority to maintain confidentiality and put the knowledge into practice. The research shows that, within indigenous communities in Siberut, Mentawai, particularly in the *Rereiket* area, three groups possess traditional medicine knowledge: the community, clans; and healers. While in Sabah, Malaysia, only two groups have such knowledge: the community and the healers.[2]

The healers are specialized in treatment/healing and have the authority to prescribe medicines because they are recognized and trusted by their community members. The Mentawai *kerei* are specialized in treatment and receive widespread recognition from the public. Within the indigenous community in Sabah, the healers consist of several groups, namely *bobolian and bomoh*, herbalist (*mongugusap*), and massage therapist. The existing knowledge of each of these healing groups differs from one another in the way to acquire knowledge, the rights and authority of the owner, and knowledge transfer methods. It can be inferred from the above grouping that medicinal knowledge is owned by:

a) Community;

b) Clan; and

c) Healers consist of Kerei, Bobolian, Bomoh, Herbalists; and Massage Therapists.

Procedures for Transfer of Medicinal Knowledge

Each group of owners knows the rules and procedures of traditional medicine transfer is based on tradition. Both in Mentawai and Sabah, in general, traditional medicine knowledge and patient treatment are acquired through the following processes: learning, discovering or developing, dreams, natural talent, and inspiration (divine gift). The learning process is a series of knowledge transfer activities and the value of living in a community, which is done consciously by teachers and pupils. In practice, the process of teaching the knowledge of medicine and treatment is done through oral teaching, direct observation; and apprenticeship. Teaching rules and procedures are various. Each healer has a unique method in knowledge transfer.

Indigenous people believe that the transfer of medicinal knowledge along with patient treatment is a very important occasion as they see it not just as a mere transfer between the giver and receiver of the knowledge (teachers and pupils) but also as the requirements to meet before the transfer occurs. These requirements include the rights and obligations of the parties involved in the transfer. Until these requirements are met, no transfer of medicinal knowledge can take place. These requirements, in general, can be grouped into two categories: primary requirements and secondary requirements. Primary requirements compulsory requirements. Prospective healers who fail to meet these requirements are denied the learning process. Secondary requirements are complementary requirements. Although these two categories of requirements are found in each group of healers, there are fundamental differences in what constitutes primary and secondary requirements between the healing groups in the Mentawai kerei healer and those in Sabah.

In the generally accepted rules within the healing groups in Sabah, primary requirements are immaterial and secondary requirements are material". A similar situation applies to the *kerei* tradition in Mentawai for potential healers "*mukerei*".[3] Only adult Males must comply with "immaterial" requirements to follow the *mukerei*. In addition to the immaterial requirements, a *kerei* candidate must also meet the "material" requirements which are usually negotiated and agreed to by the *kerei* candidate's parents or tribal leaders and a senior *kerei* who would be his teacher (*sipaumat*). This requirement is commonly referred to as *sakinia* (fee).

The type and the fee requested by the senior *kerei* vary. In terms of type, five are always requested, i.e., pigs (3-10), chicken (1-2), durian fruits, coconuts, and sago palms. These are the key conditions to comply with for the implementation of *mukerei.* The payment is made in several stages. First, during the mukerei, which is before the kerei inauguration party begins. It is known as *katotoili* payment (*saki katotoili*), and second, after the completion of the *kerei* inauguration party, which is done in the morning after an *alub* party. The third and last stage is the payment for special medicinal knowledge.

In addition to the mandatory material requirements above, senior kerei sometimes ask other requirements,

such as *rambutan* fruits ax, knife sharpener, mirror, and white clothes. Because these are complementary material requirements, they are not requested by every potential teacher.

From what precedes, it appears that each indigenous community has its procedure for the transfer of traditional knowledge. This is because every community has its tradition that spawns the principle and nature of medicinal knowledge ownership. Traditional medicine knowledge is handed down from one generation to another to preserve it. The tradition is the rule of normative life and an integral part of traditional medicine knowledge ~~existence~~ existing in an indigenous society.

In traditional societies both in Mentawai and Sabah, the transfer of medicinal knowledge and the treatment of patients is not just a mere transfer of information about medicine, but it is also a process to recognize the possession of medicinal knowledge. In the process of transfer, the donor and the recipient have rights and obligations depending on the nature of the ownership of the medicinal knowledge that is based on the prevailing tradition in a group of holders of indigenous knowledge. The following part discusses the nature of the ownership of indigenous medicinal knowledge.

Protecting Traditional Medicine Knowledge Through Intellectual Property Rights

Conceptually, there are two forms of protection of traditional knowledge: positive protection and defensive protection.[4] This distinction is based on the purpose or motivation behind the protection of traditional knowledge.[5] Positive protection under the law is the means provided to traditional knowledge owners to claim their rights. Meanwhile, defensive protection is the legal instrument and non-legal measure available to knowledge owners to prevent from them being taken advantage of by third parties.

The idea behind positive protection is to safeguard the rights of traditional knowledge holders or owners for commercial benefits.[4] In other words, this form of protection is used to drive economic benefits from the exploitation of traditional knowledge. Therefore, the recognition of legal rights over such traditional knowledge is required. These legal rights are in forms of intellectual property rights; and the legal establishment of Intellectual Property Rights (*sui generis*). The following is the elaboration of each legal means that can be used to protect traditional medicine knowledge.

Protection through Conventional Intellectual Property Rights

Intellectual property law is the method governing the creation, use, and exploitation of the results of the creative effort or mental (mental or creative labor). Intellectual property rights law provides private property rights to any work involving creative or mental activity.[6] The term "intellectual property" has been used since ages to refer to areas of the law relating to copyright, patents, designs, and trademarks as well as other rights associated with it.[5] This branch of the law is known as the law of conventional intellectual property rights.[7]

Some scholars criticize the protection of traditional knowledge through intellectual property rights. They claim that there is a clear line of demarcation between private rights and public rights. They argue that the ownership of traditional Knowledge is vague. Supporting this is Sardjono (2004) who argues that ~~t~~raditional medicine knowledge is a collective right and that individualistic patent may not be used to protect something that relies on communalistic value.[8] But it is worth noting that not every traditional knowledge is communal. The research conducted in Mentawai and Sabah reveals that not all ownership, especially ownership of traditional medicine knowledge is "common property". Concerning the ownership boundary lines introduced by Heller, much of the traditional medicine knowledge owned by indigenous peoples is private. A Kerei, who develops and discovers new and unprecedented medicinal, is recognized by their community and the society in general as the owner of that knowledge.

In the prevailing tradition of the Mentawai people, owners of medicinal knowledge have the right and authority to exploit their knowledge. They also have the right to sue and fines anyone unlawfully using their knowledge.

Furthermore, the right to possess and use medicinal knowledge is limited to those initiated by the knowledge owner.[8] The difference between medicinal knowledge possessed by an individual and that of the group lies in the nature of the access to such knowledge. Access

to medicinal knowledge possessed by an individual is open to the public (open access), whereas access to the knowledge owned by the healers very limited. This is consistent with Heller's basic concept of the boundary line of private property that claims that open access of others to a power source, the nature of private property ownership is shifted towards the 'commons'.

Every indigenous community has its own rules regarding the ownership of traditional medicine knowledge. Although this knowledge is viewed as common property, each indigenous community has its concept about it. Based on the tradition in other parts of Indonesia such as Java, Bali, and Lombok, access to traditional medicinal knowledge is open meaning that anyone, including foreigners, is allowed to learn it and use it any way that suits them.[7] Referring to Heller's theory, knowledge of traditional medicine in the community of Java, Bali, and Lombok can be considered as an open-access common property.[7]

The private aspect of the acquisition of traditional medicine knowledge can also be found in other Asian countries such as Thailand, India, and China. Whereas countries such as Ethiopia and Peru do not recognize private ownership over traditional knowledge. A system of joint ownership is applied in Peru instead, which means that indigenous peoples are entitled to the economic value of their knowledge despite ownership being open to the public.

It can be concluded, from what precedes, that not every traditional medicine knowledge - including knowledge of traditional medicine is common property. Thus, the idea that intellectual property rights are incompatible with the legal protection of traditional knowledge becomes irrelevant.

Another legal issue is the fulfillment of the requirements for obtaining substantial property rights in each relevant legal instrument, i.e., the requirement of novelty and inventive step to acquire a substantial patent. The legal protection of traditional knowledge involves patents, trademarks, and geographical indications. This paper is only concerned with protection through patents. Patent registration to fulfill substantive requirements is one of the major problems in the protection of traditional knowledge. Novelty and inventive step formalities are required to obtain a patent. The question is whether there is any legal concept related to patent that can best match/ accommodate the real condition of traditional knowledge owned by indigenous people. The requirement of the invention for patent varies from one country to another.[9] There are two legal concepts of novelty, i.e., *absolute novelty* and *relative newness*. Theoretically, every country is free to choose the type of novelty that can best accommodate the protection of traditional knowledge through the patent regime. In their patent law, both the United States and China chose the concept of "relative novelty" which allows them to provide patents on eligible traditional knowledge. An example of the protection of traditional knowledge through patent in the US is the formulation of 'azadirachtin' for storage stability.[10] Similarly, the concept of novelty also exists in European patent law on the impact of fungal oil 'neem' (fungicidal effect of neem oil).[11] This patent claims to control fungi on plants by using a stable extract from seeds of the neem tree. Both of these patents were challenged in court on behalf of traditional communities.

This has led to the cancelation of the patent by the Technical Board of Appeal of the European Patent Office on the ground that the invention was common knowledge of the indigenous people in India and that it did not meet the substantive requirements of EPO. The US Patent and Trade Mark Office (USPTO), on the other hand, ruled that the patent was valid as the invention meets the substantive requirement of novelty.[12]

Furthermore, the same also applies in determining the concept of inventive step. It is highly dependent on the patent laws of a country to formulate the inventive steps to ensure a qualitative difference. This requirement is a qualitative examination to ascertain whether the contribution of the invention is sufficiently creative.[13]

China uses prominent substantive features as an indicator to determine inventive steps in the formulation of its patent law. It is assumed that this delivers rapid progress compared to previous concepts.[14] This indicator is also used by the European Patent Office in assessing inventive steps. The above-mentioned indicators are generally accepted as measuring ropes for inventive steps in the field of traditional medicine in China.[15] In 2001 alone, China provided over 3000 patents on innovative developments in the field of traditional Chinese medicine.[16,17] Much of the medicinal knowledge

owned by the *kerei* in Mentawai and some herbalists in Sabah complies novelty and inventive steps. It is the knowledge of medicine they have always developed and opened to the public. The knowledge is transferred only on a limited basis according to the applicable methods. In India, for example, there are more than 10,000 patentable traditional inventions.[5] But the question as to how to determine novelty standards and inventive step within the country's patent law remains a challenge.

Establishment of Intellectual Property Law "*sui generis*"

Traditional Knowledge can also be protected by intellectual property laws (sui generis). If traditional knowledge is used for commercial reasons, then the economic aspect of its protection is only effective through international arrangements. Moreover, a regime of international law is required. Verma (2004) argues that the protection of traditional knowledge through the establishment of intellectual property law "sui generis" can be set at the national and international levels. He claims that the first thing to do at the international level is to stop taking unlawful actions against genetic resources along with traditional knowledge therein. The TRIPS Agreement could be an ideal tool compelling in this regard.[18] Article 29 of TRIPS requires member states to unlock the genetic origin and related knowledge and to provide evidence of prior informed consent (PIC) and benefit-sharing. Article 29 of the same Agreement requires World Trade Organization member countries to require patent applicants to disclose the invention and to allow it to be assessed by a relevant expert.

Furthermore, efforts to protect traditional knowledge at the international level can also be done through bilateral agreements between states. Through the principle of mutual recognition, two countries could agree on standards for the protection of traditional knowledge, particularly traditional medicine knowledge. The protection standards applied in one country could be recognized by another on the principle of reciprocity applied by WTO member countries and the copyrights of many countries in the 19th century. Countries could also agree to the establishment of a legal regime that protects traditional knowledge "*sui generis*" by learning from the experience of both the Berne Convention on the protection of Copyright and the Paris Convention on the Protection of Industrial Property. Countries involved in these two conventions have developed patterns allowing them to agree on protecting standards that have proved to be effective at the national level.

National Intellectual Property Rights "*sui generis*"

The protection of traditional knowledge protection intellectual property rights "sui generis" at the national level, in certain cases, seems to be more advantageous than at the international level. International tools that protect the economic aspect of traditional knowledge are not concerned with its development, and conservation. These processes can only be achieved through national law. The preservation of traditional knowledge is closely associated with the land and living environment of indigenous people. Protecting traditional knowledge does not just mean to recognize and provide exclusive rights over traditional knowledge. It must also encompass a legal mechanism that ensures the protection and preservation of the land, forest, and water of indigenous people. These must not only be protected and preserved, but they should not be taken away from indigenous people as they are the foundation of the perpetuation of the knowledge of traditional medicine. Verma (2004) argues that separating indigenous people from their surroundings is killing traditional knowledge instead of helping it to be developed and conserved.[18]

Another reason why protecting traditional knowledge at the national level is preferable is that not all of the traditional knowledge may be protected by conventional intellectual property laws.

It worth noting that traditional medicine knowledge is a knowledge that does not sometimes improve since it is owned collectively. Some community members simply feel entitled to use it without feeling obliged to develop it. This is partly because many indigenous people believe that it is a knowledge acquired through supernatural powers. Therefore, the protection of such knowledge is only possible under the law of intellectual property rights *sui generis*. Finally, it is important to bear in mind that the purpose of the protection of traditional knowledge should not only be for economic interests but its preservation.

Conclusion

The nature of the ownership of traditional medicine knowledge is largely determined by the way of acquiring such knowledge. Ownership over traditional medicine authorizes the owner (the healer) to treat, maintain confidentiality, and transfer the knowledge. Traditional medicine knowledge is privately owned both in Mentawai and Sabah. But it can also be owned collectively when it is under the control of the community at large. In both Mentawai and Sabah, knowledge of traditional medicine is accessible to people outside of the indigenous communities including foreigners based on the tradition and rules that apply.

Like any other intellectual property, traditional medicine knowledge can be and must be protected through Intellectual Property Rights law to obtain economic value either through legal property rights conventional such as patents, trade secrets, geographical indications, and the establishment of intellectual property law sui generis, both at national and international levels. To that end, it is important that parties i.e., indigenous people, companies, activists, and the government work together to bring about efficient and sustainable regulations and policies that guarantee the preservation of traditional heritage and the protection of both the environment and the rights of indigenous people.

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