The Protection of Indigenous Knowledge Related to Biodiversity: 
The Role of Databases

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Introduction

Interest in researching indigenous knowledge (IK) has increased; but numerous legal and ethical issues arise when IK is accessed, collected, disseminated, used and exploited in non-traditional ways without the consent of indigenous peoples or when ethical research practices are not respected.

The sharing of IK has been subject to indigenous peoples’ customary laws and practices. As some of them have expressed, their knowledge is of benefit to all humanity; and they are willing to share their knowledge so long as “their fundamental rights to define and control this knowledge are protected by the international community,” and they maintain the right to decide the conditions under which such knowledge can be used. From their viewpoint, they cannot be forced to share their knowledge and resources.

1 No uniform definition exists for the notion of IK. IK could be understood as knowledge as regards plants, animals, forests, and in general about biological resources developed through practice and experience for centuries. This IK is not static, as is true for any other form of knowledge, and is continuously the response of new needs and experiences, which has been passed on mainly in oral form from generation to generation and is held collectively. In the international debate over the protection of indigenous peoples’ rights over their knowledge, the term “traditional knowledge” has been used. The United Nations Declaration on the Rights of Indigenous Peoples recognizes indigenous peoples’ rights to maintain, control, protect and develop traditional knowledge; however, not all traditional knowledge may be considered as indigenous knowledge.


Indigenous peoples have urged the States to explore and pursue alternative means of protection of their knowledge, to promote and strengthen their intellectual and cultural property rights. At the same time, they have tried to formulate and develop their own means of protection. They have long responded to the exploitation of their knowledge by emphasizing the need to recognize their rights over such knowledge. Noting that the current intellectual property machinery is inadequate to address the need of protection of their knowledge, some indigenous peoples are calling for the development of a *sui generis* system (“alone of its own kind”) to protect their rights over their knowledge and genetic resources. As yet, no international *sui generis* system has been devised to accord such protection. Some initiatives have been undertaken in an attempt to provide some form of protection. One of these initiatives is the creation of databases and registers of IK. Indigenous peoples have shown either their support or their reluctance to participate in the recording of their knowledge. Their key concerns relate to the use and control of their knowledge, plus respect for their culture.

The objective of this paper is to analyze the indigenous peoples’ views and concerns over the creation of databases. We seek to address the key claims and concerns that indigenous peoples have voiced. We maintain that such concerns should be reflected in any attempt to implement databases to protect the rights of indigenous peoples over their knowledge.

The need for documentation of IK as expressed by indigenous peoples

While indigenous peoples have their own means to protect their knowledge, not all indigenous peoples have the same rules and means to protect their cultural heritage. These different approaches to protect their cultural heritage can be explained by their cultural diversity. "Indigenous peoples and cultures are not homogenous." While some have expressed their views as regards the establishment of databases calling for documentation of IK, others are more skeptical of this initiative.

Some indigenous peoples have expressed the strong need for research and documentation of IK owing to the occurrence of its loss. For example, in Australia some aboriginal communities have expressed that one of the main reasons for their support of a database is to ensure the transmission of their knowledge to future generations. As elders pass away and the younger generations lack an interest in learning and transmitting IK, databases are viewed as a tool that could be used to perpetuate their ancestors’ knowledge. Some aboriginal people in Canada, where it is reported that they “are eager to have traditional knowledge researched and recorded,” have stressed the same problem. A particular problem identified in the transmission of IK from elders relates to the lack of their interest or ability to conduct such transmission.

Likewise, some indigenous women have called upon the Parties to the Convention on Biological Diversity to provide adequate structural, technical and financial support to document and preserve women’s knowledge of biological diversity. This request reveals the willingness of some indigenous peoples to document their knowledge for preservation purposes.

Indigenous peoples are interested in using digital technologies in their cultures. The call for documentation by indigenous peoples as a response to the disappearance of their knowledge expresses their desire to use technology as a way to meet their own needs and solve their internal/cultural problems. Some indigenous peoples engaged in documenting their IK have taken steps to protect their rights and interests and the access and misuse of documented IK through the use of technological measures and intellectual property rights (IPR) mechanisms. For example, the Subanen community in the south of the

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Philippines used encryption tools, differential levels of access rights and copyright in the documentation project of their IK. Indigenous peoples “have also expressed an interest in protecting compilations of traditional knowledge documentation through the concept of original and non-original database protection.”

The expropriation of IK by outsiders has led some indigenous groups to identify and propose the need to create banks of knowledge of biodiversity. Some indigenous peoples’ organizations have pledged to promote the registration of their IK as a means to protect their knowledge and biodiversity as a national patrimony against third parties. They have demanded the recuperation, promotion, systematisation and spread of their knowledge, and envisaged the register of IK as a way to protect collective IPR. Some indigenous peoples agreed on the usefulness of the databases and register, and its character, namely as a defensive means against the inadequate use of IPR by third parties. Initiatives have been undertaken to disclose information and make it available to the public in order to be considered as “prior art” and, as such, to anticipate the novelty of IK-based inventions. This would prevent third parties from obtaining IPR over IK; however, this is seen as only one approach, which would be part of a more complex and broad IK legal protection system.

Indigenous peoples have also participated in the IK documentation initiatives aimed at making IK publicly available. For example, the documentation undertaken by an organization of traditional women

Indigenous peoples have also participated in the IK documentation projects led by research institutions aimed at documenting traditional knowledge of plant genetic resources. This documentation was made available to the public for academic research purposes. Other indigenous peoples have decided themselves to document their IK and established local databases with their own access rules to the information stored. One example of this indigenous peoples’ led initiative could be seen in the documentation carried out by the Tulalip Tribe in Washington and the Inuit in Canada.

Databases have also been envisaged as a means to protect the IK and to facilitate the exercise of indigenous peoples’ rights over such knowledge, especially within the framework of the IPR system. It has been argued, “There can be no exercise of rights without clear evidence of the protected knowledge; but, the question is, who will do this collection and compilation?”

Indigenous peoples’ led documentation of IK and land use has also taken place as a means to assert land rights. For example, indigenous peoples have documented their knowledge related to the use of resources and land to support their land claims in Canada. In the 1990s, the British Columbia Court of Appeal “accepted oral histories as evidence of use and occupation, when clearly documented.”

Summarized briefly, some of the reasons to support this documentation initiative are:

- to preserve IK and protect against its loss,
- to ensure IPR protection of IK,
- to enhance recognition of IK,
- to share IK with outsiders,
- to benefit humanity with such knowledge,
- to prevent the granting of IPR over their knowledge to outsiders,

14 De la Cruz, Rodrigo, Muñay Jacamamejoy, Gabriel, Viteri Guallinda, Alfredo, Flores, Germán, González Humpire, Jaime, Mirabal Díaz, José Gregorio, Guimarace, Robert. Elementos para la protección sui generis de los conocimientos tradicionales colectivos e integrales desde la perspectiva indígena. (Caracas: Secretaría General de la Comunidad Andina y Corporación Andina de Fomento, 2005). p.23
16 Ibid. p.72
17 Ibid. p.89
19 Ibid. p.121

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- to support research projects with public interest objectives,
- to preserve their culture,
- to prevent misappropriation of IK,
- to assert land rights.

Criticism of documentation of IK initiative as expressed by indigenous peoples

Protection of IK under customary law
Indigenous peoples have highlighted the role and importance of customary law in the protection of IK. Some indigenous peoples’ representatives have stressed, “registries, data bases and intellectual property systems are not adequate systems for protecting and transmitting our knowledge, innovations and practices. For millennia, Indigenous Peoples have had our own systems of protection and transmission under our customary law, which are the most adequate for fulfilling this need and should be respected.” They have committed themselves to protect their knowledge and reaffirmed its use in “respecting the spiritual values and dimensions of such knowledge.”

Misappropriation of IK
Indigenous peoples have also been very critical of the documentation initiative, considering that it may lead to the misappropriation of their knowledge by third parties. After interviewing some indigenous peoples’ organizations in Ecuador, Harrison notes that some indigenous peoples have expressed their concerns for the likely misappropriation of their knowledge that is being documented; and, they stressed their desire to know how to secure their rights. Representatives at the World’s Indigenous Peoples Conference held from October 16-19, 2002, in Kelowna, British Columbia, also expressed their concern for the likely exploitation of their cultural heritage that could occur through databases.

Loss of control over IK
Perhaps the most controversial factor expressed by indigenous peoples is the likely loss of control of their knowledge once it is documented. Their primary concern is by whom and how this information will be used. It is this question that has given rise to the lack of trust or ambivalence in the strategy. They expressed their concern because once the IK is revealed, then it is no longer under their exclusive control. An instructive example is provided by the research project for recording indigenous fisheries knowledge (IFK) in New South Wales in Australia. One of the main factors that hindered the recording of IFK was the concern by native peoples about the control of recorded information.

One of the central arguments raised by indigenous peoples has been the need to keep control over the management of their knowledge. They have repeatedly stressed and demanded that governments recognize their right to retain control over the use of IK and their biological resources. They note the fact that indigenous knowledge is a collective resource subject to their control and administration. They call for “guaranteed rights to… control over the development and manipulation of this knowledge.” IK holders claim the right to control the accessibility, use, and application of their IK and call for a rights-based approach that acknowledges their individual and collective rights.

Complexity and objectives of documentation of IK
Indigenous peoples in some countries have expressed their rejection, skepticism or unwillingness to register their knowledge. In Brazil,
for instance, some reasons why indigenous peoples are not willing to document their knowledge are the intergenerational way in which it has been transmitted, and the fact that documentation of IK entails a discussion of complex issues about which indigenous peoples may not be familiar. The Venezuelan Indigenous Council has also voiced its rejection to the documentation of IK owing to the purposes to which this documentation may be intended to serve; namely, “research, preservation, or marketing and commercialisation” of IK.

Lack of clarity concerning IPR protection
The lack of certainty as regards the use of their IK and the unclear determination of IPR for documented IK have caused, in some cases, the opposition of indigenous peoples and their unwillingness to support this kind of initiative. It is reported, for example, that in British Columbia, the “traditional use studies” project implemented with government support involved “sharing agreements” that regulated issues related to the management of information; but it overlooked the issue of data ownership and IPR. As a consequence, many First Nations did not want to participate on the grounds that it was not clear how this information would be used.

Prior Informed Consent
Indigenous peoples have reiterated the need for respect of their right to free and prior informed consent (PIC) without which access to genetic resources and their knowledge cannot be allowed. Much IK has been disclosed without the consent of its holders. Indigenous peoples have long demanded the respect and guarantee of their PIC to document their knowledge. This implies that to undertake such documentation, they must be consulted and informed. The existence of PIC is of utmost importance since the lack of indigenous consent may facilitate the access to their IK to third parties, making it available for exploitation.

Sharing the benefits of the research results
The benefit-sharing principle has been recognized in the CBD and the United Nations Convention to Combat Desertification. Indigenous peoples should benefit from the use of their knowledge by outsiders. The attempts to document IK by non-indigenous peoples raise concerns owing to the fact that right holders do not often reap the benefits of the research outcomes despite their participation and cooperation with the research. The issue of access to IK databases by indigenous peoples in order to benefit them also needs to be addressed.

Nature of IK
Another issue of debate is that the formal attempts to capture existing IK through databases may affect its nature. Indigenous peoples pointed out the limitations of documenting IK due to its nature. They argued that because their knowledge is dynamic, it couldn’t be documented and fixed in tangible form to meet IPR standards. They expressed their opposition to the definition of their knowledge as property or commodity. As they stated, IK “cannot be extracted, documented and traded. It is linked to our intergenerational cultural development, survival, beliefs, spirituality and medicinal systems. It is inseparable from our lands and territories. Its use is confined to persons with the appropriate authority to use it in accordance with our customary laws.” They have stressed the indivisible character of their IK with their identities, values, laws and Cosmo visions.

IK in the public domain
Indigenous peoples have expressed their concern owing to the fact that the

30 Ibid. p.32
inclusion of their knowledge in databases may reinforce the idea that their knowledge is in the public domain, and, therefore, it can be freely used.36

From their viewpoint, IK is not in the public domain.37 Hence, neither IK that has been catalogued or documented through databases and registers nor their knowledge acquired without their PIC can be regarded as knowledge in the public domain. They claim all their rights over ownership and use of such knowledge. According to their view, the fact that such knowledge has been disclosed and put in the public domain may not affect the ownership rights of intellectual property including traditional knowledge.38 Thus, the documentation of IK to meet the IPR standards needs to be further analysed.

**Concluding remarks**

Respect, recognition, and protection of IK have been central for indigenous peoples.39 Indigenous peoples agree that the responsibility for preserving IK rests with them. Some of them have acknowledged the importance of documenting and sharing their IK; however, some of them expressed their reluctance to participate in documentation activities. In order to respect the rights of indigenous peoples over their knowledge, any documentation initiative needs to be developed with their active participation and involvement before, during, and after the documentation takes place. Thus, if indigenous peoples do not accord consent for the disclosure of their knowledge, this should not be carried out. One of the issues that need to be addressed is the objective of the databases. To this end, consultations with indigenous peoples should be carried out.

The involvement of indigenous peoples throughout all phases of documentation to ensure that their interests and rights will be effectively protected is the basis for any IK documentation process. They should have the right to participate in the creation and use of databases of IK. A regulatory process that governs documentation of IK during all its phases is needed. This would permit legal certainty and transparency, while ensuring the respect of indigenous peoples’ rights, and contribute to prevent any abuse or misappropriation of IK. In this sense, principles of access, use, and confidentiality of databases are required.

There is no international consensus on the efficacy and usefulness of IK databases; and, as yet, no consensus has been reached as to the scope of an IK protection regime. Countries that seek to attain IK protection have used the databases as a means to secure defensive protection, namely, the prevention of patents in favour of outsiders. In addition, positive protection is also expected through the use of these tools. One of the challenges is to determine the scope of such protection taking into account indigenous peoples’ rights and views when documenting IK. Perhaps with the adoption of the United Nations Declaration on the Rights of Indigenous Peoples the moment has come to explore and implement strategies for protection of IK.

The risks of documentation in a context where there is still lack of international protection of IK itself need to be addressed. It is not surprising that some indigenous peoples have called for a documentation of IK only after such protection has been conferred.

There are uncertainties as to the real benefits of databases for indigenous peoples, and whether such an initiative will actually prevent IPR from being granted to outsiders and ensure IPR for indigenous peoples. Given those uncertainties, one of the challenges is to make tailored IK protection regimes that reflect indigenous peoples’ views and interests. In doing so, attention should be paid to the indigenous peoples’ demand for international protection of their knowledge. In their view, protection should not be limited to the local, national or regional approach.40

36 De la Cruz, Rodrigo, Muruy Jacamamejoy, Gabriel, Viteri Guallinda, Alfredo, Flores, Germán, González Humpire, Jaime, Mirabal Díaz, José Gregorio, Guaimaranta, Robert. Elementos para la protección sui generis de los conocimientos tradicionales colectivos e integrales desde la perspectiva indígena. (Caracas: Secretaría General de la Comunidad Andina y Corporación Andina de Fomento, 2005). p.29


Indigenous peoples face also some challenges when it comes to the documentation of their knowledge. How well prepared are they to benefit from such an initiative? Capacity building will need to be implemented and States should support and adopt measures to provide for such capacity building. They should also bear in mind that the disclosure of IK would affect their own bargaining power in international negotiations.

Bibliography


