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Anja v. Hahn, Traditionelles Wissen indigener und lokaler Gemeinschaften zwischen geistigen Eigentumsrechten und der *public domain*

Summary

1. Indigenous and local communities' traditional way of living has increasingly been recognized as sustainable and therefore as environmentally sound. Traditional knowledge and traditional plant varieties are identified as important elements of indigenous and local communities' traditional economic systems and as such contribute to the conservation of biological diversity. For the respective communities themselves, their way of living, including their economic systems, have always been an essential factor of their indigenous or local cultural identity. Consequently, traditional economic systems have found growing attention both in the framework of international environmental law and in the context of international human rights instruments. Moreover, in recent times, and especially since the advent of modern biotechnology, the pharmaceutical industry, as well as the agro-industry, have shown an increasing interest in indigenous and local economic systems and the specific knowledge and plants which have often been used by these communities for many generations. Traditional knowledge, for example, is of importance for the pharmaceutical industry, which expects to gain insight into new substances and healing methods from such knowledge. Traditional plant varieties provide for a reservoir of biological material that is indispensable for research on and development of new, high yielding varieties for modern agriculture. While on the part of pharmaceutical or agricultural companies considerable financial gains are envisaged at the end of an innovation process, indigenous and local communities, which might have contributed essentially at the beginning of the innovation process, do not participate in the benefits. The benefits arising from new products regularly protected by intellectual property rights do not flow back to the communities concerned.

For more than a decade, a partially vehement political discussion has taken place on how this situation could be redressed. Demands to participate indigenous and local communities in the benefits have been ar-

ticulated, as well as demands that these communities should control their knowledge in a sense that outsiders should not use the knowledge for their own interests without the consent of the communities concerned. In this context, different claims, which reach from the protection of traditional knowledge through intellectual property rights to the creation of a new, specific right *sui generis*, are raised.

The present publication aims to systematize this discussion and to examine different approaches to the protection of traditional knowledge and traditional plant varieties.

2. The terms 'traditional knowledge' and 'traditional plant varieties' are used with a very broad meaning. Traditional knowledge is often used in an overarching sense, also including traditional plant varieties. No commonly agreed definition exists at the international level, and this publication abstains from defining the terms, but rather provides for a description of the subject matter. Traditional knowledge can comprise many different elements, for example, knowledge of medical and other useful properties of plants or other elements of biological diversity, knowledge of the therapeutic combination of plants, as well as knowledge of specific characteristics of food plants or animals and of the local conditions of soil and biological pest control. Typically, traditional knowledge has developed over a long period of time and has been passed on for many generations. While such knowledge can be described as additional knowledge, i.e. knowledge in addition to and separable from the underlying biological resource, traditional plant varieties can be called integrated knowledge. They include the intellectual contributions of indigenous or local communities which result from their breeding efforts. Traditional plant varieties are usually characterized by their high genetic variability, which is due to the often very long cultivation process by indigenous and local communities. Such plant varieties are geographically and ecologically well adapted and thus, while yielding less crops than high-yield modern varieties, they are normally less susceptible to negative external conditions.

Although, in principle, the terms 'traditional knowledge' and 'traditional plant varieties' encompass all kinds of traditional knowledge – that includes knowledge of groups in industrialized countries – the present examination is limited to traditional knowledge and traditional plant varieties of indigenous and local communities in regions rich in biological diversity. Such regions are mostly found in southern developing countries. This limitation results from the *de facto* focus of the discussion on this kind of knowledge and plant varieties. The discussion about the protection of traditional knowledge and traditional plant va-

rieties takes place within the context of the different interests of resource countries on the one hand and industrialized countries on the other hand. Often, where legislative or other steps have been undertaken, solutions to protecting traditional knowledge and safeguarding the sovereign right of resource states to their genetic and biological resources have been sought simultaneously.

3. This development has its roots in the *UN Convention on Biological Diversity* of 1992. It plays an important role in the discussion on the protection of traditional knowledge and provides indigenous and local communities with an international forum in which to participate in the discussion and to articulate their interests. Although the Convention includes provisions on traditional knowledge and traditional plant varieties, these provisions remain rather vague. Specific rights of indigenous and local communities to their traditional knowledge or their traditional plant varieties cannot be deduced.

While no specific rights are put forward, an examination of the development of modern international environmental law in a broader context shows the formation of a principle of international law. This calls for a certain participation of indigenous and local communities in the benefits arising out of the utilization of their knowledge and their plant varieties. However, human rights law, and especially such which concerns the emerging rights of indigenous peoples, cannot be drawn upon to support such a principle, although international and regional human rights instruments explicitly recognize the importance of traditional economic systems and traditional knowledge, in particular.

Further examination shows that the second main demand raised by indigenous and local communities for their informed consent prior to the utilization of their knowledge and their plant varieties is not sufficiently supported either in environmental law or in human rights instruments in order to be characterized as a principle of international law.

4. In the main part of the publication at hand, in its chapters 4, 5, and 6, general means of protecting traditional knowledge and traditional plant varieties are examined. The means are systematized according to the level of protection they would provide.

a. The furthest-reaching protection would be granted through absolute rights: The protection by patents or plant variety rights would be absolute in its effects. Patents, plant variety protection or other intellectual property rights would invariably prohibit anyone from using traditional knowledge without the permission of the holder of such rights. Indigenous and local communities alone could thus determine who

should receive access to their knowledge, how the knowledge is to be used, and under which conditions access is to be granted. The present publication examines different intellectual property rights to find out whether they can offer such protection for traditional knowledge and traditional plant varieties and which difficulties may arise in cases in which indigenous or local communities seek to acquire intellectual property rights.

The present examination shows that traditional knowledge and traditional plant varieties are, in principle, not eligible for intellectual property rights. Traditional knowledge is often known since several generations and used by others and is thus not novel. Further, it is not held by an inventor, but by one or many indigenous or local groups. Besides these material hurdles, the procedural requirements have to be met, e.g. a patent application has to be properly filed; in most cases an insurmountable obstacle for indigenous or local communities who have neither the necessary scientific nor the necessary financial background. Traditional plant varieties usually do not qualify for intellectual property rights either. While they might, in some cases, fulfill the novelty requirement and might also be sufficiently distinct from other varieties, they are seldom uniform and stable and thus do not meet the criteria for plant variety protection.

This conclusion, however, should not mean that there is a shortcoming in the system of intellectual property rights as such. Rather, it is inherent to the characteristics of traditional knowledge and traditional plant varieties themselves. The demarcation defined through the system of intellectual property rights between intellectual property rights and freely accessible public domain knowledge is valid for traditional as well as for all other forms of knowledge in an equal manner and should, in principle, not be altered.

b. A second, general means of protecting traditional knowledge and traditional plant varieties would be to obtain a certain degree of protection through contractual rights, i.e. relative rights effective between the respective contractual partners. Such contracts on the utilization of traditional knowledge and traditional plant varieties would have to be concluded between indigenous and local communities on the one hand and pharmaceutical or agro-industry companies or research institutions on the other hand. After listing general possibilities and difficulties of such contracts, the present publication takes an exemplary look at four initiatives by different actors of the industrial sector and by research institutions. These are the pharmaceutical companies *Merck* and *Shaman Pharmaceuticals*, as well as the U.S. American *National Cancer Institute*

and the *International Cooperative Biodiversity Group*. The sample cases show different degrees of co-operation with indigenous and local communities and different levels of involvement of and decision-making by the respective groups.

The examination of only four contracts does not allow a final assessment of the practicability of contractual solutions with a view towards the protection of traditional knowledge. However, the general problems of such contracts can be identified. Such are, *inter alia*, the fact that a co-operation with indigenous and local communities and the form and manner of such co-operation strongly depend on the good-will of the company or research institution. These actors are in most cases able to dictate the conditions of a contract, be it because the knowledge is found in the public domain, and thus can theoretically be obtained without the involvement of indigenous or local groups, or be it because a number of different groups are holders of the traditional knowledge sought and the company can choose their most suitable contracting partner.

In conclusion, while contracts between indigenous or local communities on the one side and companies or research institutions of the pharmaceutical or agro-sector on the other are, in principle, possible, the strong differences between the contracting parties require certain minimum standards in such contracts.

To guarantee certain minimum standards, a growing number of legal regulations in different countries or regions exist. Some of these are examined in this book, namely those of the Philippines, the Andean Community, Peru, Costa Rica and of the Organization of African Unity (now: African Union). Even with such binding standards, which often set forth conditions for the access to and utilization of indigenous or local communities' knowledge and resources, an imminent danger remains that contracts might be circumvented. Furthermore, there is no effective possibility of control, even if concluded contracts are complied with.

At the international level, legally non-binding guidelines have been developed. These should guide countries which have not yet adopted any regulations when entering into contracts or when developing their own access legislation. Further, the guidelines offer a framework for private actors that wish to enter into contracts with indigenous and local communities or with resource countries. As a result of the continuing demands by developing countries for binding international rules, the Conference of the Parties to the *Convention on Biological Diversity* has

recently decided to enter into negotiations about an international regime. This might well be a legally binding instrument.

c. As a third means to protect traditional knowledge and traditional plant varieties, the present publication addresses the question of protection against rights of third parties which might interfere with the interests of indigenous or local communities. Again, four exemplary cases in which different groups have acted against such rights, partly with, partly without success, are presented and analyzed. These cases are the *turmeric* patent, the *ayahuasca* patent, the *basmati* patent and trade mark issues, and the *neem* patents. After possible absolute rights and relative rights, the protection against rights of others is the least far-reaching option open to indigenous and local communities.

Traditional knowledge in the public domain, which is not subject to contractual limitations, can always be used without restriction. It can, for example, be freely drawn upon in the course of innovations and used to develop new pharmaceutical or other products or processes. If results of such innovation procedures are protected by intellectual property rights, this has no consequences for the underlying traditional knowledge. Intellectual property rights can only be obtained for one's own, innovative achievements. They cannot be obtained for generally known, traditional knowledge in the public domain. If, despite this, an intellectual property right to such knowledge is obtained by a third party or is one's own intellectual achievement which is added to the traditional knowledge not sufficiently innovative, the intellectual property right was wrongly accorded. For such cases, the existing system of intellectual property rights offers – with the exemption of the evidence of prior art demanded in U.S. American patent law – sufficient possibilities of correcting such results.

5. All in all, the means of protecting traditional knowledge and traditional plant varieties under existing law are limited. Knowledge and plant varieties cannot be protected through intellectual property rights and contracts fail due to deficiencies at the enforcement level. Protection against appropriation through third parties generally exists. Such protection, however, only results in the safeguarding of the free access and use of traditional knowledge and traditional plant varieties, not in any rights of the respective indigenous or local communities. The indigenous and local communities concerned can neither exercise control on their knowledge or plant varieties, nor can they demand to participate in possible benefits.

In order to realize a certain level of protection, therefore, new *sui generis* solutions are needed. The present publication puts forward envi-

ronmental as well as human rights considerations for such *sui generis* options. Depending on the intended level of protection, different options which match the initial differentiation of absolute and relative rights as well as means of protection against rights of others, are conceivable.

a. As a first option, a new right *sui generis* to traditional knowledge and traditional plant varieties would be conceivable. This would guarantee a broad protection similar to that of existing intellectual property rights. A number of reasons speak against the realization of such a right, amongst others difficulties to define the subject of protection and the beneficiary of the right, as well as the extent of protection and the question whether such a right should be realized at the international, regional or national level.

b. Secondly, the existing possibility of gaining contractual rights could be pursued and an improvement with regard to the deficiencies identified at the level of enforcement could be sought. For this, the circumvention of contracts would have to be eliminated and, furthermore, compliance with existing contracts would have to be strengthened. These concerns could be accommodated by requiring that the traditional knowledge and resources used for an invention be disclosed within the patent application procedure. However, the TRIPs Agreement does not allow binding disclosure obligations. This means that if the obligation to disclose information on the knowledge and resources used was to be drafted as binding, the TRIPs Agreement would have to be modified. Such an amendment could theoretically either allow national and regional regulations on the disclosure or it could provide for such obligation itself. But again, even a disclosure requirement will not be able to help over the fact that traditional knowledge often is not only held by one, easily identified group, but instead used by various communities and is thus located in the freely accessible public domain.

c. As a result, traditional knowledge and traditional plant varieties can not be reasonably protected either through an absolute right *sui generis*, or through a relative, contractual right. Instead, traditional knowledge and traditional plant varieties should remain in the public domain. However, even if they do, knowledge and plant varieties need not be left completely unprotected. Certain conditions for the utilization of knowledge or plant varieties of the public domain can be laid down. While no control by indigenous or local communities on the use of their knowledge can be realized, an international fund, for example, could be created to assist indigenous or local communities concerned

and guarantee that the benefits arising out of the utilization of traditional knowledge and traditional plant varieties are shared.

Such a solution would correspond to the principle of international law identified at the beginning, according to which a certain participation of indigenous and local communities in the benefits arising when their knowledge and plant varieties are used should be realized. The fact that it does not seem possible to create a prior informed consent requirement matches the result that the emergence of such a principle was denied above.

Benefits out of the proposed fund could support indigenous and local communities' traditional way of living. Such support would enable the communities, or at least give them an incentive, to retain their traditional economic systems. A fund would therefore accommodate the environmental, as well as the human rights concerns identified.