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Traditional Knowledge and Intellectual Property Rights
The Current State of Play at the International Level

What is traditional knowledge? Why has traditional knowledge become the subject of international debate and what is its interrelationship with intellectual property rights (IPRs)? What are the policy objectives of the protection of traditional knowledge and what (legal) mechanisms are available in this regard? And what is the current state of play in the relevant international fora?
This paper addresses these questions in the following steps: Because clear terminology is one important means to avoid misunderstandings and thus crucial for a fruitful debate on the issues arising, terminology is addressed at the outset. The paper then provides an overview of the reasons why traditional knowledge has become an issue at the international level. Furthermore, it describes the ways in which traditional knowledge and IPRs can interrelate. Next, the paper lays out possible policy objectives of the protection of traditional knowledge, the legal mechanisms available, and other issues arising in this regard. And finally, it summarizes the current state of play of the discussions on traditional knowledge at the international level.

I. Introduction

[Rz 1] Traditional knowledge, its protection and its interrelationship with intellectual property rights (IPRs) have been the subject of international debate for several years. This debate covers issues such as the relationship between the North and the South; the protection of the environment and the conservation of biological diversity; modern biotechnology, in particular genetic engineering, and the protection of its results through IPRs; access to genetic resources[1] and traditional knowledge[2] and the fair and equitable sharing of the benefits arising from their use; and the rights of indigenous and local communities. Key words that are frequently used in this debate are «green gold,» «biopiracy,» «exploitation of the South,» «erosion of traditional knowledge,» «environmental degradation,» «loss of biological diversity,» «fair and equitable benefit sharing,» «Farmers' Rights,»[3] and «self-determination of indigenous peoples.»

[Rz 2] Several international fora have been involved in this debate, including the Convention on Biological Diversity (Biodiversity Convention, CBD),[4] the Food and Agriculture Organization (FAO),[5] the World Intellectual Property Organization (WIPO),[6] the World Trade Organization (WTO),[7] and various human rights bodies of the United Nations. Generally, this debate has rather been controversial, clearly showing the divergent views that exist among the various stakeholders involved, which include developed and developing countries, indigenous and local communities, private industry, and non-governmental organizations (NGOs). Up to now, this debate has not brought the necessary results allowing for the effective and efficient protection of traditional knowledge. It has clearly shown, however, that many complex legal, political, economic and scientific issues need to be resolved and that

presently a great deal of information on these issues is still lacking.

[Rz 3] This paper addresses the issue of traditional knowledge, its protection and its interrelationship with IPRs as follows: First, it deals with terminology and describes the reasons why traditional knowledge has become the subject of international debate. It then enumerates the various ways in which traditional knowledge and IPRs can interrelate. In a further part, the paper discusses the protection of traditional knowledge, that is, the differing meanings of the term protection, possible policy aims of such protection, the available mechanisms, and other issues to be addressed in this context. In a final part, it provides an overview of the current state of play of the international debate on traditional knowledge, its protection and its interrelationship with IPRs.

II. What Is Traditional Knowledge?

[Rz 4] Several international fora are discussing the issue of «traditional knowledge,» without, however, having so far been able to establish an internationally agreed definition of this term. Nevertheless, several particular characteristics can generally be attributed to this form of knowledge: « *Traditional knowledge is knowledge that has been developed based on the traditions of a certain community or nation. Traditional knowledge, is, for that simple reason, culturally driven* .»[8] Traditional knowledge thus consists of tradition-based innovations and creations that originate from and are used in indigenous and local communities. [9] «*Because its generation, preservation and transmission is based on cultural traditions, [traditional knowledge] is essentially culturally-oriented or culturally-rooted, and it is integral to the cultural identity of the social group in which it operates and is preserved* .»[10] Traditional knowledge is transmitted from generation to generation, often in oral form or by way of example, whereas written sources may not exist at all or only in local languages. It is constantly being improved and adapted to changing environments and needs, and is therefore not static knowledge. Traditional knowledge is usually not the property of an individual, but held in common by the community. And finally, this knowledge is intended to support the livelihood of its creators and users, and its creation is neither profit-oriented nor profit-driven.

[Rz 5] Besides the lack of an internationally agreed definition of «traditional knowledge,» the issue of terminology is further complicated by the following factors: In some cases, a distinction is made between almost identical or at least closely related forms of traditional knowledge. It is thus much rather a difference in terminology than substance, that is, different terms are used to designate the same or at least similar forms of traditional knowledge. In other cases, terms used to designate differing forms of traditional knowledge are at the same time used interchangeably to designate one and the same form of traditional knowledge. This confusion in the use of terminology applies to terms such as «indigenous knowledge,» «traditional indigenous knowledge,» «elders' knowledge,» «local knowledge,» and «traditional ecological knowledge.» To worsen matters, folklore, also termed traditional expressions of culture, is in some cases also considered to be a form of traditional knowledge.

[Rz 6] In its work and documents, WIPO has proposed and applied the following definition of traditional knowledge:

> «*'Traditional knowledge' … refer[s] to tradition-based literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks, names and symbols; undisclosed information; and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields. «Tradition-based» refers to knowledge systems, creations, innovations and cultural expressions which: have generally been transmitted from generation to generation; are generally regarded as pertaining to a particular people or its territory; and, are constantly evolving in response to a changing environment. Categories of traditional knowledge could include: agricultural knowledge; scientific knowledge; technical knowledge; ecological knowledge; medicinal knowledge, including related medicines and remedies; biodiversity-related knowledge; «expressions of folklore» in the form of music, dance, song, handicrafts, designs, stories and artwork; elements of languages, such as names, geographical indications and symbols; and, movable cultural properties. Excluded from this description of [traditional knowledge] would be items not resulting from intellectual activity in the industrial, scientific, literary or artistic fields, such as human remains, languages in general, and other similar elements of «heritage» in the broad sense* .»[11]

[Rz 7] This definition of WIPO takes into account the particular characteristics that can be attributed to traditional knowledge and covers a very broad range of the many forms of this knowledge. The definition thus presents a good

basis for the further international discussions on the protection of traditional knowledge, especially with regard to the necessary establishment of a working definition of this term.

[Rz 8] The reference to this form of knowledge as «traditional» is sometimes being criticized as belittling the value of this knowledge to its creators and holders and to society in general, and as suggesting that this knowledge is outdated, backward, primitive, old-fashioned or valueless. As outlined above, however, the qualification of knowledge as «traditional» much rather refers to the particular characteristics of this knowledge, especially the manner of its creation, use and handing down. Furthermore, this term is generally used in the discussions of various international fora.[12] Thus, this paper uses the same terminology.

III. What Are Intellectual Property Rights (IPRs)?

[Rz 9] The Convention Establishing the World Intellectual Property Organization defines in Article 2(viii) the term intellectual property as including «*the rights relating to*

- *literary, artistic and scientific works,*
- *performances of performing artists, phonograms, and broadcasts,*
- *inventions in all fields of human endeavor,*
- *scientific discoveries,*
- *industrial designs,*
- *trademarks, service marks, and commercial names and designations,*
- *protection against unfair competition,*

and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields. »[13].

[Rz 10] Examples of IPRs are patents, plant breeders' rights, trademarks, copyrights, and trade secrets.

IV. Why Has Traditional Knowledge Become an Issue at the International Level?

[Rz 11] Over the centuries, indigenous and local communities in developing and developed countries have created and accumulated a great deal of traditional knowledge, which has generally been adapted, developed and improved by the generation that followed to meet the changing needs. Access to, use and handing down of this knowledge has been regulated by local values, customs, traditions and laws. Some of this knowledge has been accessible by all members of a community and freely exchanged with non-members of this community. Other traditional knowledge has been known only to particular individuals within these communities, such as for example shamans, and has been handed down only to particular individuals of the next generation.

[Rz 12] Until recently, traditional knowledge has been used almost exclusively by these indigenous and local communities. In the last few years, however, this knowledge has become of increased interest to scientists and industry. On one hand, this is due to advances made in modern biotechnology, especially in genetic engineering, which have considerably increased the possibilities for using genetic resources. On the other hand, consumer demand for more «natural» medicines and foodstuffs has also increased interest in genetic resources. In turn, this increased interest in the traditional knowledge related to genetic resources, which may be the starting point for research and development activities of scientists and industry in fields such as pharmacology, plant breeding, foodstuff production and cosmetics. Thus, for example, the knowledge of a local healer on the pharmaceutical properties of a particular plant may help in the development of a new drug that is based on extracts of that plant.

[Rz 13] The described use of traditional knowledge in research and development activities of scientists and industry takes place outside the indigenous and local communities that hold this knowledge, and thus outside the scope of application of the local values, customs, traditions and laws, that regulate access to, use and handing down of traditional knowledge. This raises complex new issues, including the following: Do researchers interested in using traditional knowledge need permission for this use and, if so, who must be asked? In case this research results in a product that can be successfully marketed, must the commercial benefits arising be shared, and if so, with whom?

And finally, may this knowledge be freely included in scientific publications and be made available to other researchers? In case this use of traditional knowledge by scientists and industry takes place outside the borders of the countries where these indigenous and local communities are located, the issues arising acquire an international dimension.

[Rz 14] One particular concern raised in the context of the use of traditional knowledge in research and development activities is the misappropriation of this knowledge, sometimes also called «biopiracy.» [14] Cases have become public where traditional knowledge has been protected by IPRs, even though no innovative or creative activities have been carried out with regard to this knowledge. [15] In these cases, the traditional knowledge generally originated from an indigenous or local community located in a country that is different from the country where the IPR-protection was granted. With this, the issue of the misappropriation of traditional knowledge through IPRs acquires an international dimension as well.

[Rz 15] In stark contrast to the increased interest of researchers and industry in traditional knowledge is the accelerating rate this knowledge is being lost. This loss occurs for various reasons, including the destruction of the environment; the disappearance of its holders, that is, local and indigenous communities, or their local languages and dialects; the lack of interest in its continued use; and its replacement by Western forms of knowledge. Traditional knowledge, however, continues to be important for millions of people all over the world for their everyday life, including to meet their healthcare and food needs. Thus, in the discussions of various international fora on sustainable development, the conservation of the environment, and the rights of indigenous peoples, the loss of traditional knowledge has been considered to be an issue of global relevance.

[Rz 16] These and other developments have led to the call for the «protection» of traditional knowledge at the international level. Various international fora are currently discussing the many issues arising in this regard. Up to now, however, progress has been slow, and the finding of measures providing for the effective and efficient protection of traditional knowledge can be expected to require considerable more work. Besides being complex issues from the legal, scientific and technical point of view, they also interrelate with several highly controversial political issues: As a substantial part of the Earth's biological diversity and genetic resources are located in developing countries, these issues are part of the – politically sensitive and thus difficult – North-South debate. Among others, this debate has been additionally poisoned by misinformation about the potential economic value of genetic resources and traditional knowledge for research and development activities of industry, which led some representatives from developing countries and NGOs to believe that there are billions of dollars to be made annually. Furthermore, traditional knowledge and its protection is one element in the much broader debate on the rights of indigenous peoples. Finally, IPRs and modern biotechnology are already by themselves the subject of controversial political debate at the national and international level. The slogan «no patents on life» and the discussions on genetically modified seed are examples at hand. These factors have considerably added to the great complexity of the issues arising, further complicating the search for viable solutions.

V. Interrelationship Between Traditional Knowledge and IPRs

[Rz 17] In the international discussions on traditional knowledge, reference is often made to IPRs. Most frequently, IPRs are referred to as a means to either protect or misappropriate traditional knowledge. The following overview shows that besides these two forms of interrelationship, there are other ways in which traditional knowledge and IPRs can – directly or indirectly – interrelate.

[Rz 18] First, intellectual property rights are one mechanism to protect traditional knowledge. This can occur in the following three ways:

1. Existing forms of IPRs: This protection can be achieved through existing forms of IPRs, including patents, trade secrets and trademarks, if the traditional knowledge to be protected meets the applicable criteria of protection. For example, the pharmaceutical properties of a plant known to a local shaman may be protectable by trade secrets, provided that this knowledge has not been made available to the public.

2. *Sui generis* forms of IPRs: Protection of traditional knowledge can also be achieved through *sui generis* forms of IPRs, that is, rights specifically designed to protect this subject matter. Such *sui generis* IPRs have been introduced in the national laws of several countries, including Peru, Portugal, Kenya and Brazil [16], and are also being discussed at the international level[17].

3. Local Rules: Some values, customs, traditions and laws of indigenous and local communities regulate access to and use and transfer of traditional knowledge in the same or at least a similar manner as do existing «Western-style» IPRs. Even though these local rules may not necessarily be considered as IPRs from a formalistic legal point of view, they in effect afford the same or at least similar protection as do these rights. Thus, these local rules could also be considered as providing for IPR-protection of traditional knowledge.

[Rz 19] Second, traditional knowledge can be indirectly protected through measures introduced in intellectual property laws and procedures. These measures may have differing objectives, including (1) preventing the misappropriation of traditional knowledge, (2) allowing for the verification of whether the applicable rules and conditions regarding access to traditional knowledge and benefit sharing have been met, and (3) simplifying the determination of prior art when examining novelty and non-obviousness of inventions. One possible such measure is to require patent applicants to declare the source of traditional knowledge in their applications, if the invention in question is directly based on this knowledge. [18] This declaration would inform the holders of traditional knowledge about the use of their knowledge in the respective invention and, consequently, would allow them to verify whether the applicable rules and conditions regarding access to their knowledge have been met and whether provision for benefit sharing has been made. Furthermore, patent examiners could be required to consult documentation on traditional knowledge when determining prior art in the context of the examination of patent applications. These and other intellectual property measures to indirectly protect traditional knowledge are currently being discussed at the international level, but no agreement has been reached to date. [19]

[Rz 20] Third, the tradition-based manner of the creation, use and transfer of traditional knowledge may have implications on the protectability of this knowledge through existing forms of IPRs. For example, as mentioned above, traditional knowledge that is only accessible to a limited number of individuals, such as knowledge known to a local shaman only, may, due to its confidential nature, be protectable by trade secrets. This protection may be possible even if this traditional knowledge has been handed down from one shaman to another for some time, this as long as it has not been made available publicly. In contrast, traditional knowledge that is freely shared with anyone interested in its use is not confidential and therefore not protectable by trade secrets.

[Rz 21] Fourth, documentation and recording of traditional knowledge in databases – one means to preserve this knowledge – may have implications on the protectability of traditional knowledge through existing forms of IPRs. [20] Patent protection, for example, requires that the invention to be patented has not been made available publicly in any form prior to the filing of the patent application. Thus, should the holders of traditional knowledge consider applying for patent protection, they may not make available documented and recorded such knowledge to the public before filing patent applications.

[Rz 22] Fifth, cases have been reported where traditional knowledge has been misappropriated through IPRs. [21] In these cases, traditional knowledge is protected by such rights, in particular patents, even tough no innovative or creative activities have taken place. In this context, the term «biopiracy» [22] is sometimes used. In some of these cases, the patent was revoked due to the lack of novelty or inventiveness of the invention protected by that patent. [23] These revocation procedures made apparent that access to existing traditional knowledge by patent authorities should be considerably improved in order for these authorities to better determine prior art when examining the criteria of novelty and non-obviousness of inventions that are based on or otherwise related to traditional knowledge. This access is often hindered because traditional knowledge is not available in writing or only in languages that these authorities are not familiar with. To improve this access, it has been proposed to document and record this

knowledge in electronic databases established at the local and national level, and to link these databases through an international portal, which would provide access to these databases via internet. [24] Documentation and recording of traditional knowledge in databases may thus not only be a means to preserve traditional knowledge, but also to prevent the misappropriation of this knowledge through IPRs.

[Rz 23] And finally sixth, intangibles that are not or not any more protected by IPRs belong to the public domain. Accordingly, these intangibles can be freely used and exploited by whoever is interested in doing so, free meaning without permission and without (monetary) compensation. For example, a patented pharmaceutical substance may, after the expiration of the term of protection of 20 years, be freely used and exploited by competitors. In principle, the concept of public domain also applies to traditional knowledge, this at least outside the scope of application of the local values, customs, traditions and laws of indigenous and local communities, which regulate access to and use and transfer of this knowledge. In this context, it is important to note that traditional knowledge generally does not meet the protective criteria of existing IPRs. Thus, a large part of the existing traditional knowledge cannot be protected by these rights and belongs to the public domain and can be freely used and exploited. In the international discussions on traditional knowledge, the concept of public domain has been criticized by some as a purely Western concept, which is alien to indigenous and local communities, and which should therefore not be applied to traditional knowledge. It is argued that within these communities, values, customs, traditions and laws regulate access to and use and transfer of traditional knowledge, and that due to these local rules this knowledge should not be part of the public domain outside of these communities, either. Based on these arguments, a change in the current scope and application of the concept of public domain and the realization of *sui generis* forms of IPRs for the protection of traditional knowledge are called for.

VI. The Protection of Traditional Knowledge

[Rz 24] Several international fora are discussing the protection of traditional knowledge. As described above, however, no internationally agreed definition of the term traditional knowledge exists. The exact scope and content of the object of protection thus remains open. Further complicating the international discussions on this issue is the fact that no consensus exists either on the meaning of the term protection and the policy objectives of the legal, administrative or other measures eventually introduced to protect traditional knowledge. Differing such objectives are possible, including providing incentives for the continued creation, improvement and use of traditional knowledge; its preservation, that is, the safeguarding against its loss or dissipation [25]; the regulation of access to traditional knowledge; ensuring the fair and equitable sharing of the benefits arising from its use in research and development activities of science and industry and its commercialization; and preventing the inappropriate or unauthorized use and the misappropriation of traditional knowledge.

[Rz 25] One crucial conclusion to be drawn from the just described state of play at the international level is that two issues need to be resolved at the outset of any discussions on the protection of traditional knowledge: First, at least a working definition of the term traditional knowledge must be established, and second, agreement on the policy aims of its protection must be found. Without agreement on these two preliminary issues, the discussions on the protection of traditional knowledge will remain vague and will not bring concrete and effective results in due time.

[Rz 26] The determination of the policy objectives of the protection of traditional knowledge is of crucial importance when addressing the many other issues arising. This applies in particular to the mechanism or mechanisms chosen for the protection of traditional knowledge. Basically, a wide variety of legal and non-legal mechanisms is available, including existing and *sui generis* forms of IPRs; IPR-measures such as the declaration of the source of traditional knowledge in patent applications, if the invention is directly based on this knowledge; [26] other rights beyond the IPR-system, which are specifically designed to protect traditional knowledge; local and national databases; an international internet portal for traditional knowledge; [27] and government funding. Some of the possible mechanisms thus have a direct or indirect connection with IPRs, whereas others are completely beyond the scope of these rights.

[Rz 27] Depending on the policy objectives of the protection of traditional knowledge, different such mechanisms need to be chosen. If, for example, the objective is to prevent the further loss of traditional knowledge, documenting and storing it in an electronic database presents a viable mechanism, whereas existing forms of IPRs are unlikely to

be appropriate. In contrast, if the objective is to encourage the continued innovative and creative activities of the holders of traditional knowledge, existing forms of IPRs or specifically designed *sui generis* forms of such rights may serve well to achieve the objective.

[Rz 28] All of the legal mechanisms available for the protection of traditional knowledge have their benefits and shortcomings. Databases, for example, contain traditional knowledge in the state it existed at the time of collection. To be of continued use, databases thus need to be updated on a regular basis. In the case of existing IPRs, specific protective criteria must be fulfilled in order to receive protection. Patentable inventions, for example, must be new, non-obvious and useful; all traditional knowledge not fulfilling these criteria will be left without protection. Existing IPRs – as any other right – must be enforceable in order to be of value to their holders. Among others, enforcement requires access to legal advice, which is generally costly, and a well-functioning legal system. These examples make evident that not all mechanisms available are equally well-suited to protect traditional knowledge in all circumstances. Their benefits and shortcomings must thus closely be considered when choosing the mechanism of protection.

[Rz 29] The question arises whether one single mechanism will allow for the protection of traditional knowledge or whether a multitude of such mechanisms is necessary instead. Considering the wide variety of traditional knowledge existing and the differing policy objectives its protection may have, a «one size fits all»-solution will hardly allow to effectively and efficiently protect traditional knowledge. The same applies to solutions that focus solely on IPR-mechanisms. Consequently, the solution chosen should consist of a variety of legal and non-legal mechanisms, including mechanisms that are related to IPRs.

[Rz 30] A further crucial issue to be addressed is the level where the mechanisms to protect traditional knowledge must be realized. Are, in other words, mechanisms realized at the local or national level appropriate, or are international mechanisms required instead? As was described above, the issues arising with regard to the protection of traditional knowledge and its interrelationship with IPRs have an international dimension. Thus, international action seems necessary; possible mechanisms to be realized at the international level include voluntary guidelines, joint recommendations and legally binding international agreements. To date, however, no consensus on this issue has been reached in the discussions of the relevant international fora.

[Rz 31] In addition to the issues outlined above, many more and complex legal, political, economic and scientific issues need to be resolved when discussing the protection of traditional knowledge. [28] Depending on the policy aims and mechanisms chosen, they include the determination of the right holder, the legal nature and contents of the rights to be granted as well as the territorial applicability, term of protection, and enforcement of these rights. At the international level, several fora have been addressing these issues for quite some time. The results achieved so far make evident that much more analytical work is required and additional information needs to be collected in order to find and realize mechanisms that allow to protect traditional knowledge effectively and efficiently.

VII. The Current State of Play at the International Level [29]

[Rz 32] Traditional knowledge is being addressed in various international fora and agreements. From an environmental and conservationist perspective, it is addressed by the CBD, its Working Group on Article 8(j) and Other Relevant Provisions,[30] and the voluntary Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising Out of Their Utilization (Bonn Guidelines); [31] and FAO's International Treaty on Plant Genetic Resources for Food and Agriculture (FAO-IT). [32] From an IPR and trade perspective, it is addressed by the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) of WIPO; and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement)[33] and the TRIPS Council of the WTO. The following briefly summarizes the main activities of these international fora with regard to traditional knowledge, focusing in particular on issues relevant to IPRs.

1) The Biodiversity Convention (CBD)

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[Rz 33] The CBD contains provisions on traditional knowledge in Article 8(j). This provision uses the wording «respect, preserve and maintain» instead of the term protection; furthermore, it refers to «knowledge, innovations and practices of indigenous and local communities,» which is generally considered to be equivalent to «traditional knowledge.» The Working Group on Article 8(j) and Other Relevant Provisions, which is the body of the CBD competent to deal with traditional knowledge, met for the third time in December 2003. Among other issues, it discussed *sui generis* systems for the protection of traditional knowledge. [36]

[Rz 34] The provisions of the CBD, including Article 8(j), are worded rather generally. To further spell out these provisions and to assist the Contracting Parties of the CBD to implement their obligations at the national level, the legally non-binding Bonn Guidelines were adopted in April 2002. According to paragraph 9 of the Bonn Guidelines, traditional knowledge associated with genetic resources should be covered by these guidelines. A more detailed analysis of the Bonn Guidelines shows, however, that their provisions primarily deal with genetic resources. Still, several provisions explicitly mention traditional knowledge, including paragraphs 11(j), 16(c)(i), 31, 37 and 44(g). With regard to IPRs, paragraph 16(d)(ii) is of particular importance, as it deals with measures to encourage the disclosure of the origin of traditional knowledge in applications for IPRs.

2) An International Regime on Genetic Resources?

[Rz 35] The World Summit on Sustainable Development (WSSD), held in August/September 2002, calls in paragraph 44(o) of the Plan of Implementation on States to « *negotiate within the framework of the Convention on Biological Diversity, bearing in mind the Bonn Guidelines, an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources.* »[37] The General Assembly of the United Nations invites, in paragraph 8 of Resolution 260 adopted at its 57th session of 2002, the Conference of the Parties (COP) of the CBD «*to take appropriate steps in this regard* .»[38] The international regime was further discussed in CBD fora, [39] without, however achieving substantial progress. The next meeting of the COP will be held in February 2004[40] and is scheduled to address the issue of the international regime. As in other international negotiations on genetic resources, IPRs can be expected to play an important and controversial role in the negotiations on the international regime. Traditional knowledge is at present not explicitly foreseen to be covered by this regime. Still, the negotiations on this regime are likely to have important implications on the international discussions on traditional knowledge, its protection, and its interrelationship with IPRs.

3) The International Treaty of FAO [41]

[Rz 36] The FAO-IT[42] addresses traditional knowledge in the context of Farmers' Rights. According to its Article 9.2(a),[43] the protection of traditional knowledge relevant to plant genetic resources for food and agriculture is one possible measure to protect and promote Farmers' Rights. Because the responsibility to realize Farmers' Rights rests with national governments and is subject to national legislation, needs and priorities, the Contracting Parties of the FAO-IT enjoy great freedom when implementing the provisions of Article 9.2(a) on the protection of traditional knowledge. National mechanisms realized for this protection may thus take the form of existing and *sui generis* forms of IPRs or any other legal form the Contracting Parties of the FAO-IT deem appropriate.

4) The Intergovernmental Committee (IGC) of WIPO

[Rz 37] The IGC of WIPO was established in the fall of 2000. [44] Its first mandate for the years 2001 to 2003 covered the discussion of IPR-issues arising in the context of genetic resources, traditional knowledge and folklore. So far, the IGC has neither been able to establish a working definition of the term traditional knowledge, nor has it agreed on the policy objectives of the protection of this knowledge. Nevertheless, the IGC discussed and adopted several concrete measures with regard to traditional knowledge, including the development of inventories of on-line databases and periodicals as well as a toolkit on traditional knowledge. [45] Furthermore, the IGC discussed elements of a *sui generis* system for the protection of traditional knowledge, without having taken any decisions on this issue yet.[46] The fifth and last session of the IGC under its first mandate was held in July 2003. At this meeting, no agreement has been found on the extension of the mandate and the issues to be covered under such mandate. This [47]

decision was taken by the General Assembly of WIPO, which met in the fall of 2003.

5) The TRIPS Agreement

[Rz 38] The TRIPS Agreement contains at present no specific provisions on traditional knowledge. Still, the obligations of Members with regard to the protection of IPRs basically also apply to traditional knowledge.

[Rz 39] The issue of traditional knowledge was officially included in the agenda of the TRIPS Council at the fourth Ministerial Conference of the WTO held in Doha, Qatar, in November 2001, where the Ministers instructed the TRIPS Council to examine the protection of traditional knowledge. [48] Up to now, however, this examination has not been very extensive, as the TRIPS Council has been addressing other issues, in particular the question of access to essential medicines. At the 5th WTO Ministerial Conference held in Cancún, Mexico, in September 2003, negotiations again focused on other issues, particularly on agriculture as well as investment, competition, transparency in government procurement and trade facilitation (the so-called «Singapore issues»). As no consensus emerged, the conference ended without any concrete results. [49] The so far last meeting of the TRIPS Council took place in November 2003, without, however, advancing the examination of the issues listed in paragraph 19 of the Doha Declaration.

VIII. Conclusion

[Rz 40] The protection of traditional knowledge is currently being discussed in various international fora, including the Biodiversity Convention, FAO, the WTO and the IGC of WIPO. Up to now, however, these fora have neither been able to agree on a specific definition of the term «traditional knowledge,» nor on the policy objectives of its protection. These are thus two preliminary issues that should be clarified at the outset of any discussions on the protection of traditional knowledge. Once this has been achieved, the many other complex legal, political, economic and scientific issues need to be addressed as well. This paper has shown that various mechanisms are available for the protection of traditional knowledge. The international discussions held up to now have brought some concrete and practical results. They have, however, also clearly shown that more analytical work is necessary and that additional information needs to be gathered in order to find appropriate mechanisms for the effective and efficient protection of traditional knowledge.

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Der Autor, Dr. iur. Fürsprecher LL.M. Martin Girsberger, ist Co-Leiter des Rechtsdienstes Patente und Design beim Eidgenössischen Institut für Geistiges Eigentum.

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[1] «Genetic resources» means genetic material, that is, any material of plant, animal, microbial or other origin containing functional units of heredity, of actual or potential value (*see* Article 2 of the CBD [Biodiversity Convention, 1992]).

[2] For a definition of this term *see* below Part II.

[3] *See generally* Girsberger, 1999.

[4] *See generally* www.biodiv.org. The German translation of the convention text can be found at www.admin.ch/ch/d/sr/0_451_43/index.html.

[5] *See generally* www.fao.org, in particular www.fao.org/ag/cgrfa/default.htm.

[6]

[7] *See generally* www.wipo.int, in particular www.wipo.int/tk/en/issues/overview/index.html.

[8] *See generally* www.wto.org.

[9] World Intellectual Property Organization, 2002a, paragraph 33.

[10] Traditional knowledge can also be found outside of local and indigenous communities in «Western» societies. Examples are «grandmother's remedies» to cure minor illnesses, methods for preparing foodstuff such as the preservation of vegetables and fruit for long-term storage or the making of cheese, methods for the construction of buildings and roads, and traditional farming practices. This traditional knowledge, however, has so far generally not been the subject of the international discussions on traditional knowledge. Thus, this paper does not address the issues that may arise with regard to this form of traditional knowledge.

[11] World Intellectual Property Organization, 2002e, paragraph 28.

[12] World Intellectual Property Organization, 2002c, paragraph 25.

[13] *See* Part VII below.

[14] Word Intellectual Property Organization, 1979.

[15] The term «biopiracy» is used – without uniformity – to refer to a variety of problems which can arise in the context of access to and use of genetic resources and/or traditional knowledge. They include:

- the acquisition of genetic resources or traditional knowledge without the permission of the country of origin or, respectively, the indigenous community which created the knowledge;
- cases where benefits arising from the commercial use of genetic resources or traditional knowledge are not shared with the country of origin or, respectively, the indigenous community;
- cases where traditional knowledge is protected through intellectual property rights – primarily patents – without the holders of these rights having been innovative themselves; the right holders thus simply discovered and/or copied the traditional knowledge;
- any protection of biotechnological innovations by IPRs, which are based on genetic resources or traditional knowledge, irrespective of whether applicable provisions on (1) access to these resources or this knowledge, (2) benefit sharing or (3) the acquisition of these IPRs, have been met or not.

[16] *See*, for example, the case of Maca as reported by Peru (Peru, 2003).

[17] World Intellectual Property Organization, 2003c, Annex II.

[18] World Intellectual Property Organization, 2002e.

[19] Switzerland, 2003.

[20] *See*, e.g., World Intellectual Property Organization, 2003e, paragraphs 128-144.

[21] World Intellectual Property Organization, 2003a.

[22] *See*, e.g., Peru, 2003.

[23] For possible definitions of this term *see* footnote 15 above.

[24] *See*, e.g., the proceedings with regard to the neem tree (http://ofi.epoline.org/view/GetDossier?dosnum=&pubnum=EP436257&sortedBy=D&lang=EN).

[25] World Trade Organization, 2003a. Such an international portal has been established by WIPO. It can be found at www.wipo.int/globalissues/databases/tkportal/index.html.

[26] World Intellectual Property Organization, 2003b, paragraph 17.

[27] *See*, e.g., Switzerland, 2003.

[28] *See*, e.g., Switzerland, 2001, paragraphs 16-19.

[29] For an in-depth analysis of similar issues arising in the context of Farmers' Rights *see* Girsberger, 1999, p. 171-327.

[30] See generally www.ige.ch/E/jurinfo/j105.htm

[31] *See generally* www.biodiv.org/programmes/socio-eco/traditional/.

Bonn Guidelines, 2002.

[32] FAO-IT, 2001.

[33] TRIPS Agreement, 1994.

[34] The CBD entered into force December 29, 1993. Currently, 188 States are Contracting Parties of the CBD (*see* www.biodiv.org/world/parties.asp).

[35] Article 8(j) of the CBD requires Contracting Parties to *«respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.»* (Biodiversity Convention, 1992).

[36] *See* www.biodiv.org/doc/meeting.aspx?mtg=WG8J-03 and www.iisd.ca/biodiv/wg8j-3/.

[37] World Summit on Sustainable Development, 2002.

[38] United Nations General Assembly, 2002.

[39] These are the Open-Ended Inter-Sessional Meeting on the Multi-Year Programme of Work of the Conference of the Parties up to 2010 (MYPOW) held in March 2003 (*see generally* www.biodiv.org/doc/meeting.aspx?mtg=MYPOW-01), and the second meeting of the Working Group on Access and Benefit Sharing held in December 2003 (*see generally* www.biodiv.org/doc/meeting.aspx?mtg=ABSWG-02).

[40] *See generally* www.biodiv.org/doc/meeting.aspx?mtg=COP-07.

[41] *See generally* Girsberger, 2002, discussing the provisions of the FAO-IT that are of relevance to IPRs.

[42] The FAO-IT was adopted November 3, 2001, but has not yet entered into force. Currently, 33 States have deposited their instrument of ratification, acceptance, approval or accession (see www.fao.org/Legal/treaties/033s-e.htm).

[43] Article 9, entitled «Farmers' Rights,» reads as follows:

> *«9.1 The Parties recognize the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world.*
>
> *9.2 The Parties agree that the responsibility for realizing Farmers' Rights, as they relate to Plant Genetic Resources for Food and Agriculture, rests with national governments. In accordance with their needs and priorities, each Party should, as appropriate, and subject to its national legislation, take measures to protect and promote Farmers' Rights, including:*
>
> > *(a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture;*
> >
> > *(b) the right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture;*
> >
> > *(c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.*
>
> *9.3 Nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law and as appropriate.»* (FAO-IT, 2001).

[44] *See generally* World Intellectual Property Organization, 2000.

[45] World Intellectual Property Organization, 2002b, World Intellectual Property Organization, 2002d.

[46] World Intellectual Property Organization, 2002e.

[47]

The decision of the General Assembly reads as follows: « *On the basis of the proposal by the Chair, and mindful of the importance of intellectual property in relation to genetic resources, traditional knowledge and folklore, the WIPO General Assembly decides that:*

(i) The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore will continue its work for the next budgetary biennium on questions included in its previous mandate,

(ii) Its new work will focus, in particular, on a consideration of the international dimension of those questions, without prejudice to the work pursued in other for...a,

(iii) No outcome of its work is excluded, including the possible development of an international instrument or instruments.

The General Assembly urges the IGC to accelerate its work and to present a progress report to the session of the General Assembly in September 2004.
The General Assembly further requests the International Bureau to continue to assist the IGC by providing Member States with necessary expertise and documentation.»
(World Intellectual Property Organization, 2003d, paragraphs 93-95).

48 Paragraph 19 of the Doha Ministerial Declaration reads as follows: « *We instruct the Council for TRIPS, in pursuing its work program including under the review of Article 27.3(b), the review of the implementation of the TRIPS Agreement under Article 71.1 and the work foreseen pursuant to paragraph 12 of this declaration, to examine,* inter alia*, [...] the protection of traditional knowledge and folklore [...]. In undertaking this work, the TRIPS Council shall be guided by the objectives and principles set out in Articles 7 and 8 of the TRIPS Agreement and shall take fully into account the development dimension.* » (World Trade Organization, 2001).

49 The relevant paragraphs of the Ministerial Statement of 5th WTO Ministerial Conference read as follows:

«*4.We therefore instruct our officials to continue working on outstanding issues with a renewed sense of urgency and purpose and taking fully into account all the views we have expressed in this Conference. […]*

6. Notwithstanding this setback, we reaffirm all our Doha Declarations and Decisions and recommit ourselves to working to implement them fully and faithfully .»

(World Trade Organization, 2003).

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