Traditional Knowledge and Human Rights

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I. INTRODUCTION

In the realm of intellectual property protection, traditional knowledge has been receiving increasing attention in the past few years. Presently, however, there is no international treaty regulating traditional knowledge.¹ Nonetheless, the efforts of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (GRTKF) within the World Intellectual Property Organization (WIPO) might just result in the creation of such an international instrument. Indeed, the WIPO General Assembly said in 2003 that "no outcome of its work is excluded".² In parallel to these developments, a wealth of academic literature concerning the understanding of traditional knowledge has recently been published.³

This article will analyse the relationship between the notion of traditional knowledge and the international protection of human rights, particularly Article 27 of the International Covenant on Civil and Political Rights (ICCPR)⁴ and Article 15.1 of

² Report adopted by the Assembly, WIPO Doc. WO/GA/30/8, 1 October 2003, para. 93(iii). In the document Protecting Traditional Knowledge: Overview of Policy Objectives and Core Principles, WIPO Doc. WIPO/GRTKF/IC/7/5, 20 August 2004, para. 43, the WIPO Secretariat expresses the view that a revised draft on an international instrument might be adopted and sent to the 32nd WIPO General Assembly, to be held in September 2005, which is most probably overly optimistic.

³ Early books include T. Greaves (ed.), Intellectual Property Rights of Indigenous Peoples: A Sourcebook, Society for Applied Anthropology, Oklahoma City, Oklahoma, 1994; A.F. Krattiger, J.A. McNeely, W.H. Lesser, K.R. Miller, Y.S. Hill and R. Senanayake (eds.), Widening Perspectives on Biodiversity, IUCN-World Conservation Union, Gland, Switzerland, 1994; S.B. Brush and D. Stabinsky (eds.), Valuing Local Knowledge: Indigenous Peoples and Intellectual Property Rights, Island Press, Washington, D.C., 1996; and D. Posey and G. Dutfield, Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities, International Development Research Centre and WWF, Ottawa, 1996. All these books came in the aftermath of the CBD. Academic articles on indigenous peoples and intellectual property before this had mostly addressed compensation for indigenous peoples and not dealt with the legal recognition of their intellectual efforts.

⁴ Adopted 16 December 1966 as UN General Assembly Doc. A/RES 2200 (XXI), Annex; registered as 999 U.N.T.S. 171; entered into force 23 March 1976.

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¹ The Convention on Biological Diversity (CBD), Article 8(j), recognizes such knowledge, without using the term "traditional knowledge". The specific Article calls upon the States 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"; see also Article 10(c), 17.1 and 18.4 of the CBD. However, Article 8(j) regulates only knowledge "relevant for the conservation and sustainable use of biological diversity" and shall be implemented "subject to … national legislation". An Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions was established in accordance with decision 1V/9 of the Conference of the Parties to the CBD and has up until now had three meetings. Furthermore, ILO Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries refers in Article 23.2 to "the traditional technologies and cultural characteristics of these peoples"; see also Agenda 21, Chapter 26.4(b) and UN Draft Declaration on Indigenous Peoples, Article 29.

the International Covenant on Economic, Social and Cultural Rights (ICESCR).⁵ More specifically, the article will seek to answer to what extent recognized human rights contribute to the emerging acknowledgement of traditional knowledge at both the national and international level. In other words, is there an obligation under human rights law to provide for some kind of protection of traditional knowledge? The pertinence of such a question is based on the acknowledgement of the relevance of human rights in the context of traditional knowledge as expressed by the WIPO⁶ as well as by certain States.⁷

It is assumed for the purpose of this article that most indigenous peoples and local communities are receptive to a form of protection of their traditional knowledge.8 Moreover, it is also important to acknowledge that while the notion of exclusive rights is considered to be alien to the culture of most indigenous peoples,9 exclusive rights might be important in any indigenous community. Nevertheless, at the same time, caution should be applied when addressing intellectual property protection in the context of indigenous peoples and local communities.

II. WHAT IS TRADITIONAL KNOWLEDGE?

The term traditional knowledge per se does not refer to any product eligible for intellectual property protection. However, various terms have been proposed in order to recognize the rights which could be derived from traditional knowledge. "Traditional intellectual property rights" is a term introduced by recognized authors,¹⁰ whilst others prefer the term "community intellectual property rights"¹¹ or "traditional group knowledge and practice",12 while the Organization of African Unity (OAU) Model Law simply applies the term "community rights".13

⁵ Adopted 16 December 1966 as UN General Assembly Doc. A/RES/2200 (XXI), Annex; registered as 993 U.N.T.S. 3; entered into force 3 January 1976.

⁶ See Traditional Knowledge, Traditional Cultural Expressions and Genetic Resources: The International Dimension, WIPO Doc. WIPO/GRTKF/IC/6/6, 30 November 2003, para. 22, which identifies human rights as having potential bearing on a comprehensive international law of intellectual property". See also the WIPO home page

on human rights and IP, at: www.wipo.int/tk/en/hr/index.htmb. ⁷ See the *Draft Report*, WIPO Doc. WIPO/GRTKF/IC/7/15 Prov. 2, 11 March 2005, para. 101, in which Brazil is quoted as affirming: "It approached the protection of TK [traditional knowledge] within a broader framework of human rights and indigenous rights law."

⁸ Ibid., paras. 135, 136, 139 and 142, containing statements by the representatives of indigenous peoples.

See Protecting Traditional Knowledge, supra, footnote 2, Annex II, para 62, on relevant studies.
 T. Cottier and M. Panizzon, Legal Perspectives on Traditional Knowledge: The Case for Intellectual Property Protection, 7 Journal of International Economic Law, 2004, p. 371, at p. 387.

¹¹ See A. K. Gupta, Study on the Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Associated Traditional Knowledge, WIPO Publication No. 769(E), WIPO-UNEP, 2005; available at: www.wipo.org/tk/en/publications/769e_unep_tk.pdf. See also Crucible Group, People, Plants and Patents, International Development Resource Center, Ottawa; Dag Hammarskjold Foundation, Stockholm; International Plant Genetic Resource Centre, Rome, 1994.

¹² See P. Drahos, Towards An International Framework For The Protection of Traditional Group Knowledge And Practice, paper presented at Elements of National Sui Generis Systems for the Preservation, Protection and Promotion of Traditional Knowledge, Innovations and Practices and Options for an International Framework UNCTAD-Commonwealth Secretariat Workshop, 4-6 February 2004; available at: vr0.unctad.org/trade_env/test1/ meetings/tk2.htm#agenda>.

¹³ OAU, Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, Model Legislation 101, originally adopted at the 68th Ordinary Session of the Council of Ministers of the OAU in 1998, final version adopted in 2000.

Related to the work in the GRTKF, a distinction has been made between two motivations for the protection of traditional knowledge, one positive and one defensive:

"Positive protection entails the active assertion of IP rights in protected subject matter, with a view to excluding others from making specific forms of use of the protected material. Defensive protection does not entail the assertion of IP rights, but rather aims at preventing third parties from claiming rights in misappropriated subject matter."¹⁴

In other words, defensive protection can be ensured by making use of the existing legislation. Though positive protection can imply the adoption of new laws, existing categories of intellectual property can be used for protecting traditional knowledge, as will be seen in Section III of this article.

The motivation for ensuring defensive protection is in principle consented to by all States.¹⁵ The crucial question is whether States are obliged to do more than just prevent the misappropriation of subject matter. This is where human rights could contribute to the protection of traditional knowledge.

Traditional knowledge is embedded in the local culture of an indigenous community. This knowledge constitutes crucial elements of the holistic approach towards both the natural and man-made livelihood of these peoples. Moreover, this knowledge is seldom found in written form or expressed in any formal way, but it is transmitted orally and through practice. However, these aspects do not reduce either the validity or the value of this knowledge.

It is important to note that traditional knowledge does not imply that this knowledge must be old. Recently established knowledge which is based on existing knowledge can also be traditional knowledge. Moreover, traditional knowledge can be held either by one person, many people or everyone belonging to a local people or an indigenous community. Indeed, the number of persons holding the knowledge does not affect the extent to which this knowledge is distinct and new to the outside world. However, traditional knowledge can also be spread widely around the world, connected, *inter alia*, to the spread of genetic resources. In addition, it cannot be excluded that traditional knowledge might have an industrial application, even if the tangible object to which the intangible knowledge relates has not been subject to any scientific interference or modification.¹⁶

¹⁴ Elements of a Sui Generis System for the Protection of Traditional Knowledge, document prepared by the Secretariat, WIPO Doc. WIPO/GRTKF/IC/4/8, 30 September 2002, para. 13.

¹⁵ See United States, Article 27.3(b), Relationships between the TRIPS Agreement and the CBD and the Protection of Traditional Knowledge and Folklore, WTO Doc. IP/C/W/434, 26 November 2004, para. 5, where the CBD's principles of "prior informed consent" (CBD Article 15.5) and equitable sharing of benefits (CBD Article 15.7), as well as "preventing the issuance of erroneously issued patents" (see also paras. 28–32, which clearly point towards traditional knowledge) are identified by the United States as "shared objectives".
¹⁶ In the document The Protection of Traditional Knowledge: Outline of Policy Options and Legal Elements, WIPO Doc. WIPO/GRTKF/IC/7/6, Annex I, paragraph 17 refers to the granting of patents for Chinese traditional medicine as an example of the fact that traditional knowledge E or a position the traditional knowledge much phone when the protection. In 2002, 4/79, patents on such medicines were grapted in China.

¹⁶ In the document The Protection of Traditional Knowledge: Outline of Policy Options and Legal Elements, WIPO Doc. WIPO/GRTKF/IC/7/6, Annex 1, paragraph 17 refers to the granting of patents for Chinese traditional medicine as an example of the fact that traditional knowledge can also be eligible for patent protection. In 2002, 4,479 patents on such medicines were granted in China. For a position that traditional knowledge might have industrial application, see G. Dutfield, *Indigenous Peoples, Bioprospecting and the TRIPS Agreement*, in P. Drahos and M. Blakeney (eds.), *Perspectives on Intellectual Property Vol. 9: "IP in Biodiversity and Agriculture"*, Sweet and Maxwell, London, 2001, at p. 146.

The proposed definition of traditional knowledge in the GRTKF is

"... the content or substance of knowledge that is the result of intellectual activity and insight in a traditional context, and includes the know-how, skills, innovations, practices and learning that form part of traditional knowledge systems, and knowledge that is embodied in the traditional lifestyle of a community or people, or is contained in codified knowledge systems passed between generations. It is not limited to any specific technical field, and may include agricultural, environmental and medicinal knowledge, and knowledge associated with genetic resources."¹⁷

Hence, traditional knowledge is the knowledge which is held by indigenous peoples or local communities. All the fields mentioned in the above definition have some relationship to plants, and traditional knowledge will often relate to particular characteristics or abilities of plants, whether or not these plants have been subject to systematic selection or breeding.¹⁸

III. TRADITIONAL KNOWLEDGE IN THE TRIPS AGREEMENT

At the time of the negotiations on the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement), the possibility of traditional knowledge being able to give rise to intellectual property rights was not even discussed among academics.¹⁹ In this respect, the recent change towards the possible creation of a new category of intellectual property is all the more remarkable.²⁰

The TRIPS Agreement acknowledges some forms of intellectual property and ignores others, depending on whether or not the subject matter is "trade-related". It must also be noted that the TRIPS Agreement explicitly excludes moral rights from its scope.²¹ Recently, however, strong voices of discontent have been raised in the Council for TRIPS concerning the lack of recognition of traditional knowledge,²² which is

¹⁸ The terms "conserve" and "utilize" are applied in the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), Article 13.3, emphasizing that farmers are both conservers and breeders.

¹⁷ See The Protection of Traditional Knowledge, supra, footnote 16, Annex 1, para. 54, for elements included in a definition. A definition is given in *Protecting Traditional Knowledge, supra*, footnote 2, Annex 1, B.3(2). See also Revised Version of Traditional Knowledge: Policy and Legal Options, WIPO Doc. WIPO/GRTKF/IC/6/4 Reve, paras. 78 and 88, on who is entitled to be recognized as a traditional knowledge right holder, emphasizing that the holder must be a legal person.

¹⁹ See *supra*, footnote 3.

²⁰ Cottier and Panizzon, *supra*, footnote 10, have made a convincing argument for protecting traditional knowledge through intellectual property rights, with a proposed duration of protection of fifty years. Regarding the duration, the proposed "Specific substantive principles" (see *Protecting Traditional Knowledge, supra*, footnote 2, Annex I, para. B.9) distinguish between defensive protection and positive protection (see, *supra*, footnote 14 and accompanying text). Regarding the former, there should be no fixed period of protection (see OAU Model Law, *supra*, footnote 13, para. 23.1: "shall at all times remain inalienable") as reiterated by Egypt (in *Draft Report, supra*, footnote 7, para. 110, at 62), emphasizing these rights as being "inalienable," unrenounceable and imprescriptible". Regarding the latter, paragraph B.9 of *Protecting Traditional Knowledge, supra*, footnote 2, Annex I, asserts that "additional protection shall specify the duration of protection", without indicating any such period.

²¹ TRIPS Article 9.1 states that the "Members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6*bis* of [the Berne] Convention or of the rights derived therefrom". Article 6*bis* of the Berne Convention concerns, explicitly, moral rights.

²² These debates are based on *The Doha Ministerial Declaration*, WTO Doc. WT/MIN(01)/DEC/W/1, 14 November 2001, which says in paragraph 19: "We instruct the Council for TRIPS ... to examine, *inter alia*, the relationship between the TRIPS Agreement and the Convention on Biological Diversity, the protection of traditional knowledge ...". A compilation made in 2002 by the WTO Secretariat on the basis of communications by States can be found in *The Protection of Traditional Knowledge and Folklore*, WTO Doc. IP/C/W/370.

understood to legitimize the misappropriation of traditional knowledge. For example, the African Group²³ has proposed that the list of procedural criteria of TRIPS Article 29 should be extended by including a paragraph 3²⁴ in order that traditional knowledge be regulated by TRIPS.

However, the proposal from the African Group is only one example of the possible procedural criteria that could be applied. In general, these proposals focus on:

- the indication of any traditional knowledge on which the invention is based;
- the indication of source of the material upon which the invention is based;
- whether the holder(s) of this traditional knowledge has been allowed to consent to the patenting of the invention through prior informed consent;²⁵ and
- whether there has been compliance with the access and benefit-sharing laws of the countries of origin.²⁶

The EC finds that the first two possible procedural criteria mentioned above are adequately dealt with within the patent offices but that the third procedural criteria is too complex for the patent offices to be responsible for.²⁷ Regarding disclosure of origin, the EC finds that the formulation "sufficiently clear and complete" of TRIPS Article 29.1 could include an indication of geographical origin but finds that this is an obligation only if this is "essential to put the invention into practice."²⁸

However, struggling to include traditional knowledge one way or another under the TRIPS Agreement would thereby formally only include the trade-related aspects—and not the moral aspects—of this knowledge.²⁹ One could, of course, claim that the lesser risk of misappropriation resulting from the formal recognition of traditional knowledge has its moral dimensions but that, today, traditional knowledge is in principle considered

²³ Taking Forward the Review of Article 27.3(b) of the TRIPS Agreement, WTO Doc. IP/C/W/404, at p. 2: "Any protection of genetic resources and traditional knowledge will not be effective unless and until international mechanisms are found and established within the framework of the TRIPS Agreement."

²⁴ Ibid., at p. 6. This position is also expressed by Australia in WTO Doc. IP/C/W/310, 2 October 2001, para. 10. See also Cottier and Panizzon, *supra*, footnote 10, at pp. 382 and 386 where they also argue that traditional knowledge should be taken into account in the TRIPS Article 27.3(b) review.

²⁵ In order to qualify to be considered prior informed consent, the original holders must give their consent after being informed of the use of the resource; see J. Straus, Biodiversity and Intellectual Property, in AIPPI Yearbook 1998, Vol. IX, AIPPI, Zurich, 1998, pp. 99–119, at p. 105. ²⁶ For more background on the co-operation on these issues between the CBD's Conference of the Parties

²⁶ For more background on the co-operation on these issues between the CBD's Conference of the Parties and the GRTKF, see Patent Disclosure Requirements Relating to Genetic Resources and Traditional Knowledge: Update, WIPO Doc. WIPO/GRTKF/IC/7/10, 15 October 2003.

²⁷ European Communities and their Member States, Review of Anticle 27.3(b) of the TRIPS Agreement, and the Relationships between the TRIPS Agreement and the Convention on Biological Diversity (CBD) and the Protection of Traditional Knowledge and Folklore, WTO Doc. IP/C/W/383, para. 54.

 ²⁸ Ibid., para. 46. In para. 55, the EC holds that a disclosure should not be an additional patentability criterion.
 For an alternative position, see The African Group, supra, footnote 23.
 ²⁹ See K.N. Peifer, Brainpower and Trade: The Impact of TRIPS on Intellectual Property, in 39 German Yearbook of

²⁹ See K.N. Peifer, Brainpower and Trade: The Impact of TRIPS on Intellectual Property, in 39 German Yearbook of International Law, Duncker & Humblot, Berlin, 1996, analyzing the ignorance of the moral dimensions of intellectual property rights resulting from the adoption of TRIPS, as TRIPS only regulates the material, trade-related dimension of intellectual property rights. Peifer concludes on p. 133: "A great danger lies in the trade related approach of the [TRIPS] Agreement. ... TRIPS leaves the impression that IPRs are purely economic rights."

as *prior art* and hence not subject to patents or any other forms of intellectual property rights. However, moral rights are considered particularly relevant for protecting traditional knowledge.³⁰

It must be emphasized that the TRIPS Agreement does not prevent the establishment of any new categories of intellectual property, provided that this does not impact on the obligations States already have under the Agreement, thereby implying that the TRIPS provisions are not given effect.³¹ For example, four States have recognized traditional knowledge in their legislation as part of their implementation of the CBD,³² and among these four, Portugal has adopted legislation specifically for the registration and recognition of plants which are not eligible for plant variety protection.³³ Though negotiations for the creation of an international system for the registration and recognition of farmer-bred plant varieties seem to be off the immediate agenda,³⁴ the recognition of local plants as giving rise to intellectual property protection.

Although the TRIPS Agreement is formally silent on the recognition of traditional knowledge, traditional knowledge is said to be a "challenge" for the Agreement.³⁵ However, as will be discussed below, there are some who argue that certain categories of intellectual property recognized by the TRIPS Agreement might be applicable for indigenous peoples and local communities in order to protect their knowledge and plants.

³⁰ See D.R. Downes, *How Intellectual Property could be a Tool to Protect Traditional Knowledge*, 25 Columbia Journal on Environmental Law, 2000, p. 253, at pp. 257–262.

³¹ See particularly TRIPS and Environment, WTO Doc. WT/CTE/W/8, 8 June 1995, para. 77: "The question of new forms of protection adapted to the particular circumstances of such peoples/local communities was not raised during the TRIPS negotiations." Emphasis on the consistency with existing legal systems is also made in paragraph A.6(2) of the proposed "Core principles"; see *Protecting Traditional Knowledge, supra*, footnote 2. Against this consistency principle, see the *Draft Report, supra*, footnote 7, for the comments of Brazil (para. 110, at p. 61), Egypt (para. 121, at p. 68) and Bolivia (para. 123, at p. 68), all underlining that existing intellectual property systems must be supportive of the protection of traditional knowledge, not the other, way around. 32 The WIPO Secretariat, in its Consolidated Suprey of Intellectual Property Protection of Traditional Knowledge

³² The WIPO Secretariat, in its Consolidated Survey of Intellectual Property Protection of Traditional Knowledge, WIPO Doc. WIPO/GRTKF/IC/5/7, identifies in para. 22 Brazil, Panama, Portugal and Peru as having legislation for the protection of traditional knowledge stricto sensu and not only as protection of expressions of traditional knowledge. However, the WIPO Secretariat says that there exist thirty-five national and regional measures protecting traditional knowledge; see *Protecting Traditional Knowledge*, supra, footnote 2, Annex II, para. 13. ³³ The Portuguese Decree-Law No. 118/2002, which applies the term "local varieties" (alternative terms are "farmers' varieties" or "landraces"). Article 3.1 gives the following definition: "Traditional knowledge is all the

³³ The Portuguese Decree-Law No. 118/2002, which applies the term "local varieties" (alternative terms are "farmers' varieties" or "landraces"). Article 3.1 gives the following definition: "Traditional knowledge is all the intangible elements associated to the commercial or industrial use of local varieties and other endogenous material developed by local communities, collectively or individually, in a non-systematic manner and that are inserted in the cultural and spiritual traditions of those communities ...". Article 2.1 identifies the varieties covered by the Decree-Law and excludes those "that are protected by intellectual property rights or relating to which there is an ongoing process aiming at providing for such protection".

³⁴ N. Pires de Carvalho, The TRIPS Regime of Patent Rights, Second Edition, Kluwer Law International, The Hague, 2005, p. 246, argues in favour of developing an international system for the protection of landraces (see also D. Wood, Real Rights for Fammers, 36 Biotechnology and Development Monitor, 1998, p. 24); while in From the Shaman's Hut to the Patent Office: In Search of Effective Protection for Traditional Knowledge, paper presented at the Washington University School of Law Conference on Biodiversity and Biotechnology and the Protection of Traditional Knowledge, 4–6 April 2003 (available at: daw.wustl.edu/centeris/confpapers/PDFWrdDoc/Fromshaman2.doc), Pires de Carvalho finds that the current system is not intellectual property, but rather a sort of "paid public domain".

³⁵ D. Gervais, The Internationalization of Intellectual Property: New Challenges from the Very Old and the Very New, 12 Fordham Intellectual Property Media and Environmental Law Journal, 2002, p. 929, particularly pp. 955–976. See also idem, TRIPS, Doha and Traditional Knowledge, 6 J.W.I.P. 3, May 2003, at p. 403.

IV. TRADITIONAL KNOWLEDGE AND EXISTING CATEGORIES OF INTELLECTUAL PROPERTY

Though traditional knowledge is linked to intellectual property, it is only currently beginning to be recognized as constituting a basis for establishing intellectual property.³⁶ As has already been mentioned, discussions are taking place concerning traditional knowledge in intellectual property fora such as the GRTKF and the Council for TRIPS. However, it is crucial that inter-governmental processes on traditional knowledge are not limited to these two fora.³⁷ The United Nations Environment Programme (UNEP), the United Nations Educational, Scientific and Cultural Organization (UNESCO)³⁸ and the United Nations Conference on Trade and Development (UNCTAD)³⁹ are inter-governmental organizations which have mandates that encompass issues relating to traditional knowledge, and no less than nine United Nations agencies are identified as carrying out work on traditional knowledge.⁴⁰

Within existing intellectual property categories, some are more likely to be considered by those seeking to obtain some form of positive protection. This article will not elaborate on patents and plant variety protection⁴¹ but rather analyse others of the categories of intellectual property recognized in Part II of the TRIPS Agreement. In a document for the GRTKF, the WIPO Secretariat says that "sui generis protection of TK [traditional knowledge] ... need not entail an entirely new or stand-alone system, but could also include adapted or extended sui generis elements of existing IP frameworks".⁴²

³⁶ On the potential for an early adoption of an international instrument, see Protecting Traditional Knowledge, supra, footnote 2, para. 43. Documents from the Eighth Session of the GRTKF do not indicate that a draft "international instrument" can be submitted to the 2005 WIPO General Assembly. There are three excellent books giving examples of national and regional recognition of traditional knowledge: C. Bellmann, G. Dutfield and R. Meléndez-Ortiz (eds.), Trading in Knowledge: Development Perspectives on TRIPS, Trade and Sustainability, Earthscan, London, 2003; A. von Hahn, Traditionelles Wissen indigener und lokaler Gemeinschaften zwischen geistigen Eigentumsrecht und der public domain, Beiträge zum ausländischen öffentlichen Recht und Völkerrecht, Band 170, Springer Verlag, Berlin, 2004; and S. von Levinsky (ed.), Indigenous Heritage and Intellectual Property: Genetic Resources, Traditional Knowledge and Folklore, Kluwer Law International, The Hague, 2004.

³⁷ D. Vivas-Eugui, M. Ruiz and M. Espinosa have made an assessment of the relevant international organizations in International Processes on Genetic Resources and Traditional Knowledge: Options and Negotiation Alternatives, 2003; available at: www.ictsd.org/dlogue/2003-07-11/Draft_BackgrPaper.pdf.

³⁸ See the UNESCO Convention on the Safeguarding of the Intangible Cultural Heritage, adopted at the 32nd General Conference of UNESCO in 2003; available at: portal.unesco.org/culture/en/ ev.php-URL_ID=16429&URL_DO=DO_TOPIC&URL_SECTION=201.htmb. As of May 2005, there have been fourteen ratifications and the Convention has not yet entered into force.

³⁹ For an UNCTAD resource, see *The Sustainable Use of Biological Resources: Systems and National Experiences for the Protection of Traditional Knowledge*, UNCTAD Doc. TD/B/COM.1/L.16, 27 March 2001, prepared for the Fifth Session of the Commission on Trade in Goods and Services, and Commodities.

⁴⁰ See the *Draft Report, supra*, footnote 7, para. 132, at p. 75, including also the Office of the High Commissioner for Human Rights and the Permanent Forum on Indigenous Issues (UNPFII), which is a "High-level Advisory Body". On the relevant recommendations from the 3rd Session in 2004, see WIPO Doc. WIPO/GRTKF/IC/7/13, Annex. The main theme of Fifth Session in 2006 will be traditional knowledge.

⁴¹ The author acknowledges that there is general agreement that, under normal circumstances, traditional knowledge relating to plants is not eligible for patent or plant variety protection, but see *Elements of a Sui Generis System*, WIPO Doc. WIPO/GRTKF/IC/4/8, *supra*, footnote 14, as well as *Genetic Resources: Draft Intellectual Property Guidelines for Access and Benefit-Sharing*, WIPO Doc. WIPO/GRTKF/IC/7/9, paras. 42–50, on patents, and paras. 53–56, on plant varieties.

⁴² See WIPO Doc. WIPO/GRTKF/IC/4/8, *supra*, footnote 14, para. 1; WIPO Doc. WIPO/GRTKF/IC/7/5, *supra*, footnote 2, para. 23(p), and Annex II, para. 109; and WIPO Doc. WIPO/GRTKF/IC/7/6, *supra*, footnote 16, Annex I, para. 17.

There are two categories of intellectual property which are of interest in relation to traditional knowledge. First, Part II, Section 3 of the TRIPS Agreement regulates geographical indications. Some authors find that geographical indications are appropriate for ensuring the interests of farming communities of developing States.⁴³ An important aspect of the TRIPS Agreement is that geographical indications can also apply in the absence of any particular geographical name. Under the Agreement, protection can be obtained only by identifying a good, for instance, by applying certain symbols.⁴⁴ While genetic resources that are commercially used might have a distinct name, it is rather uncommon that such resources have a name referring to their place of origin. This fact implies that the TRIPS Agreement might be of particular relevance, as geographical indications might also be protected in the absence of any particular geographical name. Currently, however, it is mostly wines and spirits which are eligible for registration in accordance with TRIPS Part II, Section 3. While the negotiations on the extension of the scope of this Section are part of the so-called "built-in agenda" under the Agreement, there has not yet been any substantial progress.⁴⁵ However, according to TRIPS Article 22.2(b), WTO Member States are under an obligation to provide the legal means to prevent any use which constitutes an act of unfair competition.46

Finally, the TRIPS Agreement requires some form of national system of registration in order to provide possibilities for effective protection in other countries, which is a similar requirement to that of the Lisbon Agreement.⁴⁷ TRIPS Article 24.9 asserts that there are no obligations of protection unless protection is provided in the country of origin. However, such systems of protection are not established in most States. This

⁴³ See A.K. Gupta, Intellectual Property, Traditional Knowledge and Genetic Resources: How can Asian Countries Protect Traditional Knowledge, Farmers' Rights and Access to Genetic Resources Through the Implementation or Review of the WTO TRIPS Agreement, WIPO Doc. WIPO/ECTK/SOF/01/3.9, presented at the WIPO International Conference on Intellectual Property, the Internet, Electronic Commerce and Traditional Knowledge, 2001, para. 37; S. Escudero, International Protection of Geographical Indications and Developing Countries, South Centre, Geneva, 2001; D. Ragnekar, Geographical Indications: A Review of Proposals at the TRIPS Council: Extending Article 23 to Products other than Wines and Spirits, Intellectual Property Rights and Sustainable Development Issue Paper No. 4, International Centre for Trade and Sustainable Development and UNCTAD, Geneva, Switzerland, 2003; and E. Opoku Awuku, Biotechnology, Intellectual Property Rights and the Rights of Farmers in Developing Countries, 8 J.W.I.P. 1, January 2005, p. 75, at p. 80. See also Genetic Resources: Draft Intellectual Property Guidelines for Access and Equitable Benefit-Sharing, WIPO Doc. WIPO/GRTKF/IC/7/9, 2004, para. 51.

WIPO/GRTKF/IC/7/9, 2004, para. 51. ⁴⁴ This is unlike previous treaties, such as WIPO's Lisbon Agreement for the Protection of Appellations of Origin and their International Registration of 31 October 1958, as revised on 14 July 1967 and amended on 28 September 1979, 923 U.N.T.S. 189, which is ratified by twenty States. Three elements constitute the "appellations of origin": (i) appellations must be *direct geographical names*; (ii) the appellation must serve as a *designation* of geographical origin of the product; and (iii) the quality and characteristics exhibited by the product must be *attributable* to the designated area; Ragnekar, supra, footnote 43, p. 3. Also, Article 1(2) of the Paris Convention for the Protection of Industrial Property of 20 March 1883, as revised 14 July 1967, 828 U.N.T.S. 305, refers to appellations of origin. ⁴⁵ For two restrictive positions, see Communication from Agreentina, Australia, Canada, Chile, New Zealand and the Livited Stress Multilateral Sweet of Natification and Registration af Ceographical Indicator for Wines (and Spirits)

and the United States, Multilateral System of Notification and Registration of Geographical Indicators for Wines (and Spirits), WTO DOC. TN/IP/W/6, 29 October 2002; and Communication from Hong Kong, China, Multilateral System, of Notification and Registration of Geographical Indicators under Article 23.4 of the TRIPS Agreement, WTO Doc. TN/IP/W/8, 24 April 2003.

⁴⁶ TRIPS Article 22.2(b) reads: "... Members shall provide the legal means for interested parties to prevent ... any use which constitutes an act of unfair competition within the meaning of Article 10bis of the Paris Convention (1967)." See also paragraph B.1(4) of the proposed "Specific substantive principles", *Protecting Traditional Knowledge*, supra, footnote 20. ⁴⁷ Supra, footnote 44.

implies that geographical indications comprise a potential category of protection but, as there is a lack of legal mechanisms on both the national and international level, local and indigenous communities cannot easily avail themselves of this category of protection.

Second, the last category of intellectual property recognized in TRIPS Part II, Section 7, is the protection of undisclosed information. This category was included after strong pressure from the United States, assisted by Switzerland. Developing countries, on the other hand, were clearly against its inclusion. Indeed, how can the protection of undisclosed information (trade secrets) be beneficial for local and indigenous communities?

Before the year 2000, there was hardly anyone who believed that traditional knowledge could be protected as undisclosed information. For example, an in-depth study in 1998 analyzing the provisions of TRIPS Article 39 as applied to plant genetic resources concluded that trade-secret protection does not apply to these resources.48 This argument was based on seven conditions which Girsberger read from the wording of Article 39.2.49 In addition to the control of information, which must be lawfully obtained and effective, based on disclosure only by consent of the holder, four supplementary conditions are more related to stricter commercial practices. The acts of disclosure must take place "in a manner contrary to commercial practices". In addition, the information must be secret, that is, not "generally known" or "readily accessible". Moreover, the information must have commercial value due to the fact that the information is secret; and, finally, the person lawfully in control of the information must have taken reasonable steps to keep the information secret.

It must also be noted that other authors equally express a strong doubt as to whether such forms of protection are available: "Trade secret law also fails to provide an acceptable model for the protection of traditional biocultural knowledge."50 However, in recent years there has been a growing recognition of the possibility that undisclosed information is an appropriate category of protection.⁵¹ Moreover, the "right to keep their cultural heritage secret whenever they so wish" is mentioned in the Draft General Comment on Article 15.1(c) of the ICESCR as a means to protect traditional knowledge.⁵²

⁴⁸ M. Girsberger, The Protection of Traditional Plant Genetic Resources for Food and Agriculture and Related Know-How by Intellectual Property Rights in International Law—The Current Legal Environment, 1 J.W.I.P. 6, November 1998, p. 1017, at p. 1058. ⁴⁹ Ibid at pp. 1059.

Ibid., at pp. 1059-1062.

 ⁴⁹ Ibid., at pp. 1059–1062.
 ⁵⁰ C.D. Jacoby and C. Weiss, Recognizing Property Rights in Traditional Biocultural Contribution, 16 Stanford Environmental Law Journal, 1997, p. 74, at p. 100; see also R.J. Coombe, Intellectual Property, Human Rights and Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biodiversity, 6 Indiana Journal of Global Legal Studies, 1998, p. 59, at p. 108.
 ⁵¹ In support of a view that traditional knowledge belonging to local and indigenous communities can be protected as undisclosed information, see P.G. Sampath and R.G. Tarasofsky, Study on the Inter-Relations between Intellectual Property Rights Regimes and Conservation of Genetic Resources, study for the European Commission, Institute for International and European Environmental Policies, Berlin, 2002, p. 15; available at: https://www.biodiv.org/doc/meetings/abs/abswg-02/information/abswg-02-inf-ext-en.pd6; G.R. Stevenson, Trade Secrets: The Secret to Protect Indigenous Reople's Ethnobiological (Medicinal) Knowledge, 32 International Law and Politics, 2002, p. 1119; and W.B. Chambers and A. Kambu, Stop exploitation of indigenous knowledge, 30 Newsletter of United Nations University, 2004. See also Genetic Resources, supra, footnote 43, para. 57. University, 2004. See also Genetic Resources, supra, footnote 43, para. 57.

⁵² The draft General Comment on Article 15.1(c) is being prepared by the Committee on Economic, Social and Cultural Rights and was considered at the 33rd Session of the Committee in November 2004.

This is a category of intellectual property which is more in the form of defensive protection, but is this a category of protection which should be promoted in order to maintain and preserve traditional knowledge? There is no general answer to this question, as different communities will have had different past experiences and therefore give different responses. For instance, some communities will fear that allowing outsiders access to existing traditional knowledge will always imply a risk of misappropriation and abuse. Communities adhering to this belief will always exclude the registration of such knowledge and the related plants in registers and databanks. On the other hand, increasing awareness of the breadth and depth of traditional knowledge requires, to some extent, that this knowledge be made visible and acknowledged. An underlying motivation for communities to divulge their knowledge can be found in an altruistic desire to share their knowledge with the outside world. In addition, it cannot be forgotten that commercial interests are a strong incentive for a community to share traditional knowledge.

Hence, the protection of traditional knowledge as undisclosed information cannot be excluded, provided that the community has made all the efforts to keep the knowledge secret and that the knowledge has a commercial value. Whether the knowledge is held by one person or the whole community is not really the issue, since the crucial issue is whether the knowledge is new to the outside world.

V. THE LINK BETWEEN TRADITIONAL KNOWLEDGE AND HUMAN RIGHTS

Three human rights provisions are of particular importance: Article 15(a) of the ICESCR, Article 15(c) of the ICESCR and Article 27 of the ICCPR.

Article 27 of the ICCPR reads:

"In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language."

While the wording of this Article is somewhat passive—for example, the term "shall not be denied"—there are other passages which deserve particular attention. For instance, the phrase "enjoy their own culture" must be considered the most relevant phrase in this Article. Indeed, as Article 27 of the ICCPR contains the term "their culture", it is primarily concerned with the culture of specific communities.⁵³ Many plants are not only consumed as food but might have particular significance if they are considered to be sacred or religious and to have a medical and a healing effect. For communities dependent upon their natural environment, both the skills and knowledge relating to such plants, as well as the plants themselves, must be considered to be crucial for their enjoyment of their own culture. Therefore, Article 27 of the ICCPR, read in

⁵³ The notion of "cultural life" in ICESCR Article 15.1(a) is wider and can also include the culture of the larger nation or region.

the light of common Article 1.2 to the ICCPR and the ICESCR,⁵⁴ asserts that to the extent that preservation of particular plants is crucial for a minority's enjoyment of their own culture, the preservation of these plants is a precondition for exercising this right. The obligations under Article 27 of the ICCPR are set out in a General Comment.⁵⁵

Moreover, if Article 27 of the ICCPR is read in light of Article 2.1 of the ICCPR, it becomes even clearer that there are positive obligations, even if Article 27 is written as a "negative" right. Article 2.1 reads: "Each State Party to the present Covenant undertakes to respect and to ensure to all individuals within its territory and subject to its jurisdiction the rights recognized in the present Covenant ...". A similar wording is found in Article 15.1(a) of the ICESCR, which reads: "The States Parties to the present Covenant recognize the right of everyone ... [t]o take part in cultural life." The term "cultural life" is a broader term than the term "their culture" of Article 27 of the ICCPR. and does not explicitly refer to the culture of a specific minority. Apart from this, the scope of the two provisions is rather similar.56

In the context of the issues raised in this article, the crucial question is the following: Could a situation arise in which the State's failure to ensure adequate protection-either defensive protection or positive protection-results in a situation in which the human rights relating to the term "culture" of Article 27 of the ICCPR and Article 15.1(a) of the ICESCR cannot be adequately enjoyed or exercised? For both these provisions, the material basis for the enjoyment or exercise of culture is recognized in common Article 1.2, which reads, in relevant parts: " ... In no case may a people be deprived of its own means of subsistence." In addition, common Article 1 relates to all the rights recognized in Part III of the two Covenants.

In order to gain more solid foundations for answering this question, ICESCR Article 15.1(c) must also be included in the analysis. It recognizes "the right of everyone ... [t]o benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author". This paragraph is found in the only article of the ICESCR recognizing cultural human rights. Therefore, its scope must be understood in the specific context in which it appears, but it must also be interpreted in light of the other parts of the ICESCR.⁵⁷ Article 15.1(c) of the ICESCR (hereinafter also referred to as "authors' rights")

⁵⁴ Common Article 1.2 of the ICCPR and the ICESCR read: "All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic

of their natural weath and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence." It should be noted that food is a "means of subsistence". ⁵⁵ General Comment No. 23, UN Doc. CCPR/C/21/Rev.1/Add.5, adopted 8 April 1994, seeks to clarify Article 27. It refers in para. 6.2 to "positive measures" including "to protect the identity of a minority and the rights of its members to enjoy and develop their culture", but does not refer to the "knowledge dimension" of culture. See also paragraph 7: "With regard to the exercise of the cultural rights protected under article 27, the Committee observes that culture manifests itself in many forms ... The enjoyment of those rights may require positive legal measures of protection and measures to ensure the effective participation ...".

⁵⁶ The term "take part" in Article 15.1(a) of the ICESCR implies more activity from the individual, compared to the term "enjoy" in Article 27 of the ICCPR but this distinction must not be overemphasized. ⁵⁷ See Article 7.1(a) (an economic human right), recognizing "... the enjoyment of just and favourable

conditions of work which ensure, in particular ... [r]emuneration.'

emphasizes the protection of the interests of the author, not only the protection of the product produced by the author—this author-product link is important.

The specific category of "authors' rights" recognized by Article 15.1(c) of the ICESCR is based on both the moral rights tradition (civil law, particularly strongly recognized in France) and, to a lesser extent, the more instrumental copyright tradition (common law, as found in the United Kingdom and the United States). There are three important observations that must be made with regard to Article 15.1(c). First, moral and material interests are recognized in this Article. Second, the scope of Article 15.1(c) cannot be interpreted as being applicable only to persons producing works eligible for copyrights and related rights but can also encompass the rights of inventors and scientists.⁵⁸ Third, and of most relevance to the questions raised in this article, the rights recognized in their work for better recognition of their intellectual property. However, Article 15.1(c) of the ICESCR does not in itself provide an adequate basis for intellectual property legislation, and it is observed that this paragraph has not "added much to existing international law".⁵⁹ Nonetheless, the most crucial question is under which conditions authors' rights are human rights in accordance with Article 15.1(c).

Authors' rights must be considered to be human rights if the moral and material interests of the author imply that the author has the right to benefit from some kind of protection and if this protection is offered in a manner which does not impede the enjoyment of other recognized human rights. However, there might be many ways of benefitting, and intellectual property protection is not the only way through which one can benefit.⁶⁰

There is no doubt that Article 15.1(c) of the ICESCR was primarily meant to apply to individual authors only: the paragraph is phrased in singular ("he"). However, there is an evolving understanding of who is eligible for intellectual property protection, which is currently not only limited to individuals. Therefore, it cannot be excluded that peoples or minorities potentially fall within the scope of Article 15.1(c), particularly if read in light of common Article 1.2, as well as Article 27 of the ICCPR and Article 15.1(a) of the ICESCR.⁶¹ Nonetheless, neither of the provisions standing alone give a sufficient

⁵⁸ See H.M. Haugen, Intellectual Property—Rights or Privileges? 8 J.W.I.P. 4, July 2005, pp. 445–457. For an alternative view, in that inventors and "industrial property rights" are excluded from the scope of Article 15.1(c), see T. Oppermann, Geistiges Eigentum: Ein "Basic Human Right" des Allgemeinen Völkerrechts, in A. Weber (ed.), Währung und Wirtschaft—Das Geld im Recht. Festschrift Prof. Dr. Hugo J. Hahn zum 70. Geburtstag, Nomos, Baden-Baden, Germany.

⁵⁹ A. Eide, Cultural Rights as Individual Human Rights, in A. Eide, C. Krause and A. Rosas (eds.), Economic, Social and Cultural Rights—A Textbook, 2nd Revised Edition, Martinus Nijhoff Publishers, Dordrecht, 2001, p. 289, at p. 297.

⁶⁰ See P. Buck, Geistiges Eigentum und Völkerrecht: Beiträge des Völkerrechts zur Fortentwicklung des Schutzes von geistigem Eigentum, Duncker & Humblot, Berlin, 1994, at p. 242, analyzing the distinction between the Universal Declaration of Human Rights Article 27.2 ("right to the protection") and the ICESCR Article 15.1(c) ("right to benefit from the protection"). ⁶¹ See R. Gana, The Myth of Development, the Progress of Rights: Human Rights to Intellectual Property and

⁶¹ See R. Gana, The Myth of Development, the Progress of Rights: Human Rights to Intellectual Property and Development, 18 Law and Policy, 1996, p. 315, at p. 323, linking ownership in fruits of intellectual labour, protection of individual dignity and safeguarding such dignity from abuse; see also Coombe, supra, footnote 50, at p. 86.

basis for this conclusion, but if they are read in unison, it is a reasonable interpretation that certain communities, understood as peoples or minorities, should be able to benefit from the protection of the moral and material interests resulting from their scientific, literary or artistic production. Hence, adequate protection of traditional knowledge is an obligation under international human rights law.⁶² At the same time, however, it cannot be concluded from the two Covenants that there is an obligation to establish a particular intellectual protection system for ensuring such protection.

VI. THE ACTUAL APPLICATION OF ARTICLE 15.1(C) OF THE ICESCR TO MINORITIES AND PEOPLES

The extent to which there has been an actual application of Article 15.1(c) among the 151 States which are party to the ICESCR needs to be analysed. There exists a Committee for the ICESCR (CESCR) responsible for overseeing its implementation. Based on the reading of State reports, minutes from meetings and recommendations ("Concluding observations") from the CESCR, there has been no application of this paragraph to other than standard intellectual property legislation.⁶³ Indeed, State reports to the CESCR focus primarily on adoption of or amendments to their legislation. Moreover, the CESCR itself does not address these issues in the examination of each State party. However, based on the analysis in the previous Section, there is a basis for including in the examination of State Parties' reports questions regarding how the rights of indigenous peoples and local communities over their knowledge, resources, symbols and artefacts are being protected.⁶⁴

Nevertheless, there is no doubt that the recognition of the traditional knowledge of indigenous peoples and local communities as constituting a basis for intellectual property is a nascent field of international law. At the same time, human rights law is also an emerging field of international law and could provide a basis for regional and national recognition and regulation of traditional knowledge. In addition, at the international level, an international legal instrument should be advocated to regulate this issue, but there is already a basis, both in the CBD and in the ICESCR, for initiating processes at regional and national levels to promote the protection of traditional knowledge.

In the context of international co-operation, the call to States "to cooperate internationally in order to realize the legal obligations under the Covenant, including in the context of international intellectual property regimes" has been made twice by the

⁶² In the two resolutions Intellectual property rights and human rights, UN Doc. E/CN.4/Sub.2/RES/2000/7, and Intellectual property and human rights, UN Doc. E/CN.4/Sub.2/RES/2001/21, no operative paragraphs address traditional knowledge, but preambular paragraphs 6 and 12, respectively, emphasize "the safeguarding of indigenous knowledge" and "the need for adequate protection of the traditional knowledge of indigenous peoples"; see also preambular para. 10 in UN Doc. E/CN.4/Sub.2/RES/2000/7.

⁶³ Coombe, *supra*, footnote 50, finds in Section 1 of her article that States do not include indigenous peoples' intellectual property in their reports to the CESCR.

⁶⁴ See also K. Aoki, Weeds, Seeds and Deeds: Recent Skirmishes in the Seed Wars, 11 Cardozo Journal of International and Comparative Law, 2003, p. 247, at p. 314.

Sub-Commission on the Promotion and Protection of Human Rights.⁶⁵ To the extent that there is a legal obligation to ensure that peoples and communities are able to "benefit from the protection of the moral and material interests resulting from their scientific, literary or artistic production"⁶⁶ there is equally an obligation to strengthen the international intellectual property regime, including the regime set up in the context of the GRTKF, but also to strengthen other international regimes.

It should also be noted that there are no references to human rights in the drafts for an "international instrument" on the protection of traditional knowledge.⁶⁷ However, there are certain paragraphs where human rights would be an appropriate inclusion, as these paragraphs include phrases such as "broader legal frameworks such as … indigenous rights legislation, and constitutional law"⁶⁸ and "recognize, respect and promote the rights of indigenous peoples and local communities".⁶⁹ This omission of any references to human rights treaties and principles might be the result of the absence of recognized applications of the relevant provisions, particularly of the ICESCR.

Nonetheless, while an international instrument is being negotiated, there is nothing which prevents a State from adopting legislation and institutions that recognize traditional knowledge (positive approach). At least, the State must ensure that third parties do not infringe upon the human rights of minorities and peoples through unauthorized use (defensive approach). This, however, does not take away from the fact that human rights should also appear in an international instrument for the protection of traditional knowledge. Such an inclusion could require a more active role from the High Commissioner on Human Rights as well as the relevant human rights bodies, particularly the Commission on Human Rights, as well as the Human Rights Commission on the Promotion and Protection of Human Rights, as well as the Human Rights Committee, which is responsible for the monitoring of the implementation of the ICCPR, and the CESCR, which is responsible for monitoring the ICESCR.

VII. CONCLUSION

There are several provisions in the ICESCR which can be applied in order to justify that minorities and peoples should be able to benefit from the protection of their

⁶⁵ See, supra, footnote 62, both resolutions reading in paragraph 7: "Calls upon State parties to the International Covenant on Economic, Social and Cultural Rights to fulfill the duty under article 1, paragraph 1, article 11, paragraph 2 and article 15, paragraph 4, to cooperate internationally in order to realize the legal obligations under the Covenant, including in the context of international intellectual property regimes."

⁶⁶ Article 15.1(c) of the ICESCR.

⁶⁷ See Protecting Traditional Knowledge, supra, footnote 2; and The Protection of Traditional Knowledge, supra, footnote 16, emphasizing policy options and legal mechanisms at the national level, with Annexes; and Submission by the African Group: Objectives Principles and Elements of an International Instrument, or Instruments, on Intellectual Property in Relation to Genetic Resources, and on the Protection of Traditional Knowledge and Folklore, Annex, WIPO Doc. WIPO/GRTKF/IC/6/12, where "economic rights", "moral rights" and "customary law" appear, but not "human rights".

⁶⁸ See Protecting Traditional Knowledge, ibid., Annex II, para. 20.

⁶⁹ See *The Protection of Traditional Knowledge*, ibid., footnote 16, Annex I, para. 2(iii), second sub-paragraph. See also para. 11 on approaches for protection of traditional knowledge, including "customary and indigenous laws and protocols".

production, in accordance with Article 15.1(c) of the ICESCR. This is further strengthened by the wording of Article 2.1 of the ICESCR, calling upon the State Parties to "progressively [achieve] the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures".⁷⁰

However, there exists a lack of adequate legislation in order to ensure the realization of the human rights recognized in the ICESCR, and this applies not only in relation to rights of local and indigenous communities in accordance with Article 15.1(c). On the other hand, the CBD is the basis for several national and regional processes of adopting legislation and regulations for the protection of traditional knowledge. This in itself is positive, but it is surprising that the rather weak and voluntary directives of the CBD⁷¹ seem to be the basis upon which such legislation is based while the ICESCR has never been applied in order to direct the process of drafting national legislation.

It is too early to say whether the increased international attention to traditional knowledge will increase the attention to the cultural rights of the ICESCR, as well as those of Article 27 of the ICCPR. However, these two treaties provide a legal basis of which both States and communities could avail themselves.

Issues relating to ownership of and control over traditional knowledge relate directly to the maintenance and preservation of both biological and cultural diversity, as increased monocultivation might be a consequence of the introduction of new plants and plant varieties. Moreover, these new plants might reduce, in relative terms, the value of traditional biological resources and hence affect the adequate standard of living of indigenous peoples and local communities. Therefore, all legal principles and provisions which provide appropriate regulation should be taken into account. Consequently, the legal obligations arising from human rights treaties should be given greater emphasis in the ongoing negotiations concerning traditional knowledge.

⁷⁰ Article 2.1 reads: "Each State Party to the present Covenant undertakes to take steps individually and through international co-operation especially economic and technical, to the maximum of its available resources with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures."

⁷¹ Both CBD provisions which most explicitly recognize traditional knowledge, Articles 8 and 10, apply the phrase "as far as possible and as appropriate", and Article 8(j) even applies the phrase "subject to its national legislation".