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**AD HOC OPEN-ENDED INTER-SESSIONAL
WORKING GROUP ON ARTICLE 8(j) AND
RELATED PROVISIONS OF THE CONVENTION
ON BIOLOGICAL DIVERSITY**

Second meeting

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Item 7 of the provisional agenda*

**ASSESSMENT OF THE EFFECTIVENESS OF EXISTING SUBNATIONAL, NATIONAL
AND INTERNATIONAL INSTRUMENTS, PARTICULARLY INTELLECTUAL
PROPERTY RIGHTS INSTRUMENTS, THAT MAY HAVE IMPLICATIONS
ON THE PROTECTION OF THE KNOWLEDGE, INNOVATIONS AND
PRACTICES OF INDIGENOUS AND LOCAL COMMUNITIES***Note by the Executive Secretary**Executive summary*

In addition to those formal intellectual property rights instruments administered by the World Intellectual Property Organization and the World Trade Organization under the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs), there exists at the national and subnational levels a variety of mechanisms and approaches that can be used to protect the traditional knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biological diversity and that are in synergy with the objectives of Article 8(j) of the Convention on Biological Diversity.

While a spectrum of opinion still exists on the adequacy and effectiveness of various intellectual property rights mechanisms in providing protection for traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biological diversity, there is evidence of emerging consensus that a range of instruments and strategies is necessary. In some instances, formal intellectual property rights, such as patents, can be used by indigenous and local communities to protect and provide benefits from their intellectual property (with regard to their traditional knowledge-based innovations or inventions) or can be used to defend their traditional knowledge (in instances where the existence of traditional knowledge as prior art is revealed during the examination of a patent application, thereby providing grounds for refusal). Geographic indications and trademarks could be used to protect products derived from traditional knowledge and can offer a strong element of cultural identification. Trade secrets

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could protect traditional knowledge, especially where such knowledge is held exclusively by a particular group within a community. Agreements and contracts, based on principles of prior informed consent, mutually agreed terms and equitable sharing of benefits are also proving to be successful. In some countries, recognition of customary law systems enables indigenous and local communities to use traditional ways to protect their traditional knowledge. However, there is also variation within countries (with respect to subnational laws) and between countries often making it difficult to provide comprehensive protection to traditional knowledge outside a country's own borders, thus pointing to the need for regional and multilateral arrangements. There are also components of traditional knowledge for which formal intellectual property rights will not provide suitable protection, and therefore a *sui generis* system might be needed to provide such protection (e.g., for sacred knowledge).

However, traditional-knowledge holders often lack the know-how and financial resources to take advantage of the intellectual property system, whether in its present or in an evolved form, and support is needed in this respect. While there are certain philosophical, legal and conceptual difficulties (such as those concerning definitions of novelty), the fact that existing standards of intellectual property may not be perfectly tailored to elements of traditional knowledge worthy of protection should not be seen as an insuperable obstacle. Intellectual property has consistently evolved to protect new subject-matter, such as software and layout designs, the emergence of which were unforeseeable even twenty years earlier. Given its evolutionary and adaptive nature, it is not inconceivable that intellectual property principles might provide effective protection for traditional knowledge. As in the past, the system can evolve to meet new needs, including some of those of traditional-knowledge holders.

Suggested recommendations

On the basis of this assessment, the Working Group may wish to establish priorities for further work and recommend that the Conference of the Parties:

1. *Supports* the work of the Intergovernmental Committee on Intellectual Property, Genetic Resources, Traditional Knowledge and Folklore of the World Intellectual Property Organization;
2. *Requests* Parties and Governments, and relevant non-governmental organizations to assist indigenous and local communities to develop strategies to protect their traditional knowledge, innovations and practices based on a "mix" of approaches including the use of existing intellectual property mechanisms, the application of customary laws, *sui generis* measures, the use of contractual arrangements, registers of traditional knowledge, and guidelines and codes of practice, and where needed, such communities be provided with the necessary capacity (particularly legal advice);
3. *Requests* the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity to identify minimum standards for a *sui generis* system for the protection of traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity that is complementary to existing approaches, and that can have international application;
4. *Requests* the Executive Secretary to establish a system of notification of laws and other mechanisms adopted by Parties and Governments for the protection of traditional knowledge, innovations and practices to enable Parties and Governments to monitor the implementation of Article 8(j) with a view to establishing standards of best practice;
5. *Urges* Parties and Governments, where they have not already done so, to take measures to establish or improve operational links between their national intellectual property offices and indigenous

and local communities in order to better coordinate and institute measures to protect their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity, particularly with regard to traditional-knowledge documentation initiatives and community-based registries of traditional knowledge;

6. *Requests* Parties and Governments, with the assistance of international development agencies and other relevant organizations as appropriate, and with the participation and involvement of the concerned indigenous and local communities, to undertake pilot projects by means of which holders of traditional knowledge may test means of protection of traditional knowledge using existing intellectual property rights regimes and contractual methods;

7. *Requests* the Ad Hoc Working Group on Article 8(j), taking into account the work of the World Intellectual Property Organization, to examine the feasibility of establishing an international database or a global registry of traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity for the purposes of, *inter alia*, assisting national intellectual property offices when considering applications that raise the issue of prior art regarding the use of traditional knowledge. In examining the feasibility of establishing such a database or registry, the Working Group should consider:

- (a) Its location and administrative arrangements;
- (b) Who should have access to information stored in the registry/database, and under what terms and conditions;
- (c) Protocols for lodging, accessing and retrieving information and data;
- (d) The best methods for classification and standardization of data;
- (e) Security requirements and best methods of achieving security for information stored in the registry/database;
- (f) The legal status of information stored in the registry/database; and
- (g) Links with national and indigenous and local community traditional knowledge registries.

In its examination, the Working Group should solicit the views of indigenous and local communities experts in the maintenance of traditional knowledge registers, national intellectual property offices, and legal experts. The Ad Hoc Working Group should report its findings to the Conference of the Parties at its seventh meeting;

8. *Requests* Parties and Governments, indigenous and local communities and relevant organizations to exchange national experiences among countries where progress has been made in incorporating elements of customary law relevant for the protection of traditional knowledge, innovations and practices of indigenous and local communities in national legislation;

9. *Invites* Parties and Governments, indigenous and local community organizations and other relevant organizations to submit case-studies and other relevant information to the Executive Secretary concerning:

(a) Experiences regarding respect for and accommodation of customary law systems that protect traditional knowledge relevant for the conservation and sustainable use of biological diversity within international, regional, national, subnational and local level legal frameworks;

(b) The development of strategies by indigenous and local communities to protect their traditional knowledge, innovations and practices, emphasizing the approaches used, the method of implementation and problems encountered; and

(c) The establishment of operational links between national intellectual property offices and indigenous and local communities to facilitate the protection of their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biological diversity;

10. *Requests* the Executive Secretary to disseminate the case-studies and information referred to in paragraph 9 above through the clearing-house mechanism.

I. INTRODUCTION

1. In accordance with task 11 of the programme of work on the implementation of Article 8(j) and related provisions endorsed by the Conference of Parties in paragraph 1 of decision V/16, the Working Group is to assess existing subnational, as appropriate, national and international instruments, particularly intellectual property rights instruments, that may have implications on the protection of the knowledge, innovations and practices of indigenous and local communities with a view to identifying synergies between these instruments and the objectives of Article 8(j).

2. To assist the Working Group in this task, the Executive Secretary has prepared an assessment of the relevant instruments, taking into account the case-studies submitted in response to paragraph 13 of decision V/16 and as requested in paragraphs 10(b) and 15 of decision IV/9. In addition, relevant information has been extracted from thematic and national reports provided by Parties, and other relevant documents provided by indigenous and local communities, international agencies and relevant non-governmental organizations and institutions. In this regard, the background notes, expert papers and reports of the Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, organized by the United Nations Conference on Trade and Development (UNCTAD) and held in Geneva from 30 October to 1 November 2000, and the first and second sessions of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of the World Intellectual Property Organization (WIPO), held in Geneva from 30 April to 3 May 2001, and from 10 to 14 December 2001, respectively, as well as the WIPO *Intellectual Property Needs and Expectations of Traditional Knowledge Holders: WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999)* (Geneva, 2001), have also been considered. The document also takes into account the ongoing work in relation to the protection of traditional knowledge being undertaken by both UNCTAD and WIPO in these two forums.

3. This document updates information contained in the note by the Executive Secretary on legal and other appropriate forms of protection for the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, prepared for the first meeting of the Working Group (UNEP/CBD/WG8J/1/2); and synthesis of case-studies and relevant information on Article 8(j) and related provisions of the Convention on Biological Diversity, circulated as an information document at the same meeting (UNEP/CBD/WG8J/1/INF/2). This document does not include assessment of voluntary mechanisms for the protection of traditional knowledge, such as codes of ethics, guidelines for the conduct of research. Such mechanisms are the subject of an information document on Compilation and overview of existing instruments and guidelines, codes of ethics and other activities relevant to the programme of work for the implementation of Article 8(j) and related provisions (UNEP/CBD/WG8J/2/INF/1) prepared for the present meeting of the Working Group.

4. The work of the Panel of Experts and the Ad Hoc Working Group on Access and Benefit-Sharing is also taken into consideration, noting the need to maintain communication and exchange information with the Working Group on Access and Benefit-Sharing as directed by paragraph 11 of decision V/26 A. This note addresses issues of particular concern to the Expert Panel and Working Group, as expressed in the report its first meeting (UNEP/CBD/COP/5/8, paras. 130 (a) - (c), and 131(a) - (d)); and takes into consideration the report of the Panel's second meeting (UNEP/CBD/WG-ABS/1/2). Two documents that have been prepared for the first meeting of the Ad Hoc Working Group on Access and Benefit-Sharing are also particularly relevant: the note by the Executive Secretary on the role of intellectual property rights in the implementation of access and benefit-sharing arrangements (UNEP/CBD/WG-ABS/1/4); and the

note by the Executive Secretary on elements for consideration in the development of guidelines and other approaches for access to genetic resources and benefit-sharing (UNEP/CBD/WG-ABS/1/3).

5. The instruments that may have implications for the protection of traditional knowledge are assessed from two perspectives, namely:

(a) The effectiveness of those forms of intellectual property that are of most relevance to the requirements of the Convention on Biological Diversity (patents, Plant Breeders' Rights, trade secrets, trademarks, geographic indicators and copyrights) to the extent that they can be used to protect traditional-knowledge holders from the misappropriation of their traditional knowledge (for example, through the recognition of traditional knowledge as prior art in patent applications); and

(b) The availability and appropriateness of such intellectual property rights systems to traditional-knowledge holders as a means of protecting and benefiting from their traditional-knowledge-based innovations, and to defend their intellectual property rights from infringement.

6. In this note, the term "traditional knowledge" is used to refer to the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant to the conservation and sustainable use of biological diversity.

II. INTERNATIONAL INSTRUMENTS RELEVANT FOR THE PROTECTION OF TRADITIONAL KNOWLEDGE

7. There are a number of instruments and processes in effect at the international level that are relevant for the protection of traditional knowledge and which are briefly identified in this section. In addition to the intellectual property instruments administered by WIPO, the other principal instruments are the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs) administered by the World Trade Organization (WTO), the International Convention for the Protection of New Varieties of Plants (UPOV), and the International Treaty on Plant Genetic Resources for Food and Agriculture administered by the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations. Also mentioned is the Convention to Combat Desertification, which contains a number of provisions concerning traditional knowledge and know-how and which reflect the requirements of Article 8(j) of the Convention on Biological Diversity. The draft United Nations Declaration on the Rights of Indigenous Peoples and the Principles and Guidelines for the Protection of the Heritage of Indigenous People also contain provisions of relevance.

8. It is also noted that as the impact of intellectual property on trade is being increasingly recognized, it is becoming common for regional and multilateral trade agreements to include chapters on intellectual property that establish minimum standards and provisions for enforcement.

A. Intellectual property rights instruments administered by WIPO

9. WIPO administers a number of instruments of relevance to the protection of traditional knowledge. These principally concern patents; trademarks; geographical indications; industrial designs; repression of unfair competition acts (including trade secret protection); and copyright and related rights. WIPO has undertaken a thorough assessment of the strengths and weaknesses of these forms of

intellectual property with regard to their appropriateness for the protection of various components of traditional knowledge. ^{1/}

10. The following issues being considered by the WIPO Intergovernmental Committee on Intellectual Property, Genetic Resources, Traditional Knowledge and Folklore are of direct relevance to the work on the protection of traditional knowledge being undertaken with respect to Article 8(j):

(a) The development of “guide contractual practices”, guidelines and model intellectual property clauses for insertion in access agreements;

(b) Delineation of the scope of subject matter for the purpose of a definition of traditional knowledge with respect to the application of intellectual property protection;

(c) Assessment of information on the availability and scope of intellectual property protection for traditional knowledge within the scope of subject matter delineated under subparagraph (b) above;

(d) Revision of existing criteria and development of new criteria for the effective integration of traditional-knowledge documentation into searchable prior art; and

(e) The relationship between customary laws regarding traditional knowledge and formal intellectual property systems. ^{2/}

B. World Trade Organization Agreement on Trade-related Aspects of Intellectual Property Rights

11. The TRIPs Agreement contains provisions on standards concerning the availability, scope and use of intellectual property rights, the enforcement of intellectual property rights, the acquisition and maintenance of intellectual property rights and related procedures, dispute prevention and settlement, and transitional and institutional arrangements. In addition to the forms of intellectual property rights protected under the instruments administered by WIPO, Article 39 of TRIPs provides for the protection of undisclosed information, often referred to in the context of the Agreement as “trade secrets”. The TRIPs Agreement provides that protectable undisclosed information is that which:

(a) Has been kept secret, in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within circles that normally deal with the kind of information in question;

(b) Has commercial value because it is secret; and

(c) Has been subject to reasonable steps, under the circumstances, to keep it secret, by the person lawfully in control of the information. ^{3/}

12. A number of analysts have noted that such provisions may be used to protect particular types of traditional knowledge that are customarily maintained in secrecy by particular members (or a group) of an

^{1/} WIPO 2001a, *Intellectual Property Needs and Expectations of Traditional Knowledge Holders: WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999)*. Geneva.

^{2/} See WIPO/GRTKF/IC/1/3, March 16, 2001. annex 4.

^{3/} TRIPs Agreement Article 39.2.

indigenous or local community, such as shamans. ^{4/} This issue will be further explored in a following section.

C. *International Convention for the Protection of New Varieties of Plants (UPOV)*

13. Plant Breeder's Rights are a form of intellectual property right established under the International Convention for the Protection of New Varieties of Plants—generally known as the UPOV Convention - that grants a plant breeder's certificate to those who breed new plant varieties. There are two operative UPOV Conventions dated 1978 and 1991. Plant Breeder's Rights, which are a legally enforceable right, are used to protect new varieties of plants by giving the holder exclusive commercial rights to market the new variety or its reproductive material. The owner can direct the production, sale and distribution of the new variety, receive royalties from the sale of plants or may sell or license their rights. The right does not, however, extend to the use of the grower's crop (i.e., the grower does not pay a royalty on the crop produced); the variety in plant breeding or the grower retaining seed for the production of another crop on their land. New varieties may be sold for usually up to 12 months within the country of origin and four years externally and still be eligible for plant breeder's rights. A plant breeder's rights generally extend (depending on the country) for up to 25 years for trees and vines and 15 - 20 years for other species. Plant Breeder's Rights generally contain breeders' and research exemptions that allow non-commercial use of protected varieties. ^{5/}

14. According to the 1991 revision of the UPOV Convention, plant breeders are defined as those who breed, discover, or develop new crop varieties. To be eligible for protection, the plant variety must be distinct, stable, uniform and novel. To gain these rights the applicant must be able to demonstrate, by a comparative trial, that their variety is different from the most similar varieties of common knowledge. An applicant for plant variety protection requires a written description of the variety and deposition of samples in the form of seeds, a dried plant, or a live plant for the examination and conclusive demonstration of stability and homogeneity through propagation trials.

15. Until 1991, exclusive rights were given by the UPOV Convention to prevent the sale of the reproductive or vegetative propagating part of the plant and commercial production for the purpose of marketing the variety. However, the 1991 revision extended protection from the propagating part of the variety to the harvested material of the whole plant. Thus, if someone uses protected seeds in an unauthorized manner, the breeder is entitled to seize not only the harvested material, but also other parts of the results of the counterfeit. The 1991 UPOV revision also clarified the farmers' exemption, or privilege, which permitted farmers to keep seed of a protected variety for use as seed in subsequent seasons, but not sell it, to the extent that, within reasonable limits, the farmers' exemption is not a violation of the Convention.

D. *FAO International Treaty on Plant Genetic Resources for Food and Agriculture*

16. The work of the FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) is relevant in the context of access to plant genetic resources, and in particular in what concerns the implementation and the revision of the International Undertaking on Plant Genetic Resources. The

^{4/} See, for example, Dutfield G 1999. *Background paper on Intellectual Property Rights and Plant Genetic Resources with particular reference to seeds and plant varieties*. Prepared for the IUCN Project on the Convention on Biological Diversity and the International Trade Regime. Oxford Centre for the Environment, Ethics and Society, Oxford University, UK. p. 70.

^{5/} Posey DA and Dutfield G 1996. *Beyond Intellectual; Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities*. International Development Research Centre, Ottawa, Canada. p. 88.

International Undertaking seeks to “ensure that plant genetic resources of economic and/or social interest, particularly for agriculture, will be explored, preserved and made available for plant breeding and scientific purposes.” The International Undertaking, which is a non-legally binding instrument, was adopted by resolution 8/83 of the 1983 FAO Conference, and interpreted and complemented by three Conference resolutions (4/89, 5/89 and 3/91) which introduced the concepts of Farmers’ Rights, national sovereignty over plant genetic resources (in compliance with the Convention on Biological Diversity), and an international fund for the implementation of farmers’ rights. The process of revising the International Undertaking was launched in 1994. ^{6/}

17. CGRFA completed its work to revise the International Undertaking, in harmony with the Convention on Biological Diversity, at the sixth extraordinary session of the Commission, held in Rome from 25 to 30 June 2001. The text of the revised International Undertaking, as prepared by the Commission, was adopted by the FAO Conference in November 2001, as the International Treaty on Plant Genetic Resources for Food and Agriculture. The provisions addressing Farmers’ Rights are contained in Article 10 of the Treaty.

E. United Nations Convention to Combat Desertification in those Countries Experiencing Drought and/or Desertification, particularly in Africa

18. The Convention to Combat Desertification contains a number of articles relating to traditional knowledge, namely, Articles 16(g), 17(c), 18.2(a) and (b). These articles collectively reflect the provisions of Articles 8(j), 17.2 and 18.4 of the Convention on Biological Diversity. In paragraph 2 (a) of Article 18: Transfer, acquisition, adaptation and development of technology, Parties are to make inventories of relevant traditional and local technology, knowledge, know-how and practices with the participation of local populations and disseminate such information. This suggests the need to establish registers of such technology, knowledge, etc. The establishment of registers as a mechanism to assist in the protection of traditional knowledge is discussed below.

19. Issues relating to traditional knowledge, including the establishment of a common understanding of the term traditional knowledge, have been addressed by an ad hoc panel composed of ten experts on traditional knowledge appointed in accordance with decision 12/COP.3 of the Conference of the Parties to the Convention to Combat Desertification. ^{7/}

20. With regard to a common understanding of the term traditional knowledge, the following definition has been established for the purposes of the Convention to Combat Desertification: “Traditional knowledge consists of practical (instrumental) and normative (enabling) knowledge about the ecological, socio-economic and cultural environment. Traditional knowledge is people centred (generated and transmitted by people as knowledgeable, competent and entitled actors), systemic (intersectorial and holistic),

^{6/} Relevant information can be found in the following documents elaborated by the Secretariat of the CGRFA, in preparation for its Eighth Regular Session: *Revision of the International Undertaking on Plant Genetic Resources: Legal and Institutional Options* (CGRFA/8/9/99), *Report of the Chairman of the Commission on Genetic Resources for Food and Agriculture on the Status of Negotiations for the Revision of the International Undertaking on Plant genetic Resources, in Harmony with the Convention on Biological Diversity* (CGRFA-8/99/13), *Composite Draft Text of the International Undertaking on Plant genetic Resources - Incorporating the Chairman’s Elements* (CGRFA 8/99/13 Annex), and *Revision of the International Undertaking on Plant genetic Resources - Consolidating Negotiating Text Resulting from the Deliberations during the Fifth Extraordinary Session of the Commission on Genetic Resources for Food and Agriculture* (CGRFA/IUND/CNT/Rev.1). WIPO, 2000, para. 33.

^{7/} See doc. ICCD/COP(4)/CST/2, 13 October 2000.

experimental (empirical and practical), transmitted from one generation to the next and culturally valorised. This type of knowledge promotes diversity; it valorises and reproduces the local (internal) resources.” ^{8/}

F. Relevant instruments being developed by the Commission on Human Rights

1. Draft United Nations Declaration on the Rights of Indigenous Peoples

21. The draft United Nations Declaration on the Rights of Indigenous Peoples, which is under consideration by the Commission on Human Rights, contains a number of articles relevant to the protection of traditional knowledge, principal among which is Article 29, which states that:

(a) Indigenous peoples are entitled to the recognition of the full ownership, control and protection of their cultural and intellectual property;

(b) They have the right to special measures to control, develop and protect their sciences, technologies and cultural manifestations, including human and other genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs and visual and performing arts.

22. Other articles contained in the draft text include the rights of indigenous peoples to:

(a) Practise and revitalize their cultural traditions and customs (article 12);

(b) Participate fully in devising legislative or administrative measures that may affect them (article 20);

(c) Traditional medicines and health practices, including right to the protection of vital medicinal plants, animals and minerals (article 24). ^{9/}

2. Draft Principles and Guidelines for the Protection of the Heritage of Indigenous People

23. At its fifty-second session, in 2000, the Sub-Commission on the Promotion and Protection of Human Rights considered the report of the seminar on the draft principles and guidelines for the protection of the heritage of indigenous people, ^{10/} provisions of which are relevant to the issues raised by Article 8(j) of the Convention. Of particular relevance are paragraphs concerning:

(a) Ownership and custody of heritage (para. 5),

(b) Prior informed consent of owners to be an essential precondition of agreements (para. 9);

(c) Owners of heritage to be the principal beneficiaries with regard to any use or application (para. 10)

(d) Heritage includes biodiversity-related and ecological knowledge (para. 13);

^{8/} Convention to Combat Desertification: *Traditional Knowledge: Report of the ad hoc Panel*, doc. ICCD/COP(4)/CST/2, 13 October 2000, para 30. See also ICCD/COP(3)/CST/3.

^{9/} E/CN.4/Sub.2/1994/30

^{10/} E/CN.4/Sub.2/2000/26, 19 June 2000. Annex I: Revised text of the draft principles and guidelines for the protection of the heritage of indigenous people.

- (e) Measures for national laws (para. 23);
- (f) Guidelines for researchers (paras. 26-34); and
- (g) Guidelines for business and industry (paras. 35-40).

II. NATIONAL INSTRUMENTS RELEVANT FOR THE PROTECTION OF TRADITIONAL KNOWLEDGE

24. Most Contracting Parties and Governments have in place a range of mechanisms that either directly provide protection for traditional knowledge, or are capable of being applied to provide such protection. These mechanisms include national intellectual property laws; and laws governing various forms of legal agreement, consumer protection, unfair competition and protection of trade secrets. Some countries have in place national *sui generis* systems for the protection of traditional knowledge. There are also national non-intellectual property right laws that may afford protection for traditional knowledge. Some countries also recognize certain aspects of customary law that may have implications for the protection of traditional knowledge, while others have begun to establish traditional knowledge registries that both assist in the preservation of much traditional knowledge, while also providing a means for protecting it.

A. *National intellectual property rights instruments*

25. Most Parties have in place a suite of intellectual property laws that include those most relevant to the protection and application of traditional knowledge, namely: copyrights, patents, plant breeders rights, trademarks, geographic indicators/appellations of origin, and trade secrets. Although these intellectual property rights differ in fundamental ways, some concepts and provisions are common to all, and have particular relevance in understanding intellectual property from the perspective of the protection of traditional knowledge. These concepts and provisions include: ownership, nature of the rights, criteria for protection; licensing; scope of protection, duration; registration costs; enforcement; and international protection. ^{11/} Most national intellectual property laws conform to the minimum standards laid out in the various intellectual property treaties administered by WIPO, the UPOV Convention, and the WTO TRIPs Agreement. Nevertheless, the level of protection, registration procedures, the level of resources available to intellectual property offices, and court systems vary significantly. Professional advice is necessary in each country where intellectual property protection is sought. Because of costs, most intellectual property holders file in countries which are important markets, or in countries that are likely to produce infringing products for sale in export markets. ^{12/}

26. Since the advent of the Convention on Biological Diversity, a number of countries have amended, or have developed proposals to amend, some of their intellectual property laws and administrative procedures, particularly patent laws, to take account of the need to protect traditional knowledge through, for example, requiring certificates of origin indicating the source of genetic resources and any associated traditional knowledge, and through provisions that enable joint ownership of intellectual property rights. Many of these developments taking place in countries such as the Philippines, Costa Rica, India, Panama,

^{11/} Cassidy M and Langford J (eds), 1999 *Intellectual Property and Aboriginal People: A Working Paper*. Ministry of Indian Affairs and Northern Development, Ottawa, Canada. Submitted for the UNCTAD Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, Geneva, 30 October – 1 November 2000. pp. 9-11.

^{12/} Ibid, p. 11.

New Zealand and the Andean Community are reviewed in paragraphs 12-14 of the note by the Executive Secretary on the role of intellectual property rights in the implementation of access and benefit-sharing arrangements prepared for the Ad Hoc Working Group on Access and Benefit-sharing (UNEP/CBD/WG-ABS/1/4).

B. Statutory and common law protections governing legal agreements, licences, contracts and trade secrets

27. It is widely recognized that contractual agreements are the main legal mechanism to facilitate access and benefit-sharing arrangements with respect to genetic resources, and that “intellectual property rights clauses play a fundamental role in these agreements”. ^{13/} Intellectual property, including copyright, trademarks, patents, trade secrets and Plant Breeder’s Rights are commonly licensed in contracts between the intellectual-property holder and licensees. Licensing is a legally binding method to allow another party to use, make or sell the intellectual property of a company or individual for a defined period of time, in return for fees, royalties, or other consideration. When intellectual property is licensed, the holder still retains ownership. The licence sets out the purpose and conditions for the licensee of the proprietary innovation or creation. However the licensor may take back the rights, if the licensee breaks the agreement. ^{14/}

28. A number of Parties and observers have also noted that indigenous and local communities are increasing their use of legal agreements and contracts to allow others to access traditional knowledge while retaining control over its use. These contracts range from simple to complex, and can be legally enforced through civil action in the courts. Agreements will differ depending on a community’s needs. Some common contractual arrangements used for intellectual property that have been adapted to protect traditional knowledge include: confidentiality or non-disclosure agreements; material transfer agreements; prior informed consent agreements; letters of intent; and memoranda of understanding. ^{15/} Examples of private legal agreements and contracts include the Aguaruna-Searle know-how licence, and the TBGRI-Arya Vaidya-Kani licence. ^{16/}

29. Internationally, it has been reported that indigenous and local communities are probably using confidentiality agreements with outside businesses more than any other legal instrument to protect their traditional knowledge of plants and medicines. Through contracts between traditional-knowledge holders and outside institutions and companies, there is increasing acceptance that an “indigenous and local community” can be recognized as a single legal entity with collective knowledge comparable to a trade secret. ^{17/} For example, it is increasingly common for aboriginal communities in Canada to sign confidentiality agreements with Governments and non-aboriginal businesses when sharing their traditional knowledge. Business partners and legal advisors are bound by these agreements not to disclose traditional

^{13/} UNEP/CBD/WG-ABS/1/4, paragraph 77(d).

^{14/} Cassidy and Langford 1999:27.

^{15/} See Cassidy and Langford 1999:6; Posey and Dutfield 1996:67-74; Columbia University School of International and Public Affairs 1999. *Access to Genetic Resources: An Evaluation of the Development and Implementation of Research Regulation and Access Agreements* Report prepared for the Biodiversity Action Network by the Environmental Policy Studies Workshop 1999. Columbia University, New York.

^{16/} Dutfield G, 2000. *Developing and Implementing National Systems for Protecting Traditional Knowledge: A Review of Experiences in Selected Developing Countries*. Prepared for UNCTAD Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, Geneva, 30 October - 1 November 2000.p. 13

^{17/} Cassidy and Langford 1999:27.

knowledge or unjustly gain from their access to it. Contracts can also be used to control the use of traditional knowledge in databases and access to their data. ^{18/}

30. The legal protection of trade secrets and confidential information from disclosure and unauthorized use is generally based on court rulings under common law and national and subnational civil codes, such as the Quebec Civil Code in Canada. These rulings govern contracts, fiduciary relationships and equity issues such as breach of confidence and unjust enrichment. Protection is limited to information that is kept secret, and therefore traditional knowledge that is in the public domain will not be protected using such common and civil law remedies. ^{19/}

C. *National sui generis systems for protecting traditional knowledge*

31. In paragraph 14 of decision V/16, the Conference of the Parties recognized “the importance of *sui generis* and other appropriate systems for the protection of traditional knowledge of indigenous and local communities and the equitable sharing of benefits from its use to meet the provisions of the Convention on Biological Diversity”. ^{20/}

32. Panama has adopted a *sui generis* law for the protection of traditional knowledge. ^{21/} India has established a national system for the protection of traditional knowledge which includes the National Innovation Foundation, which has been established to build a national register of innovations and network of community-based traditional knowledge registries (see section G below). However, a number of other countries are still considering options for the development of such systems, such as the documentation of traditional knowledge, registration and innovative patent systems; or the development of legal frameworks outside the existing patent system. These countries include: Andean Community members, Bolivia, Ecuador, and Colombia; and Namibia. ^{22/}

33. In Panama, the Legislative Assembly of the Republic of Panama established through Legislation No. 20 of 26 June 2000, the Special Intellectual Property Rule on the Collective Rights of Indigenous Peoples for the protection and defence of their cultural identity and traditional knowledge. ^{23/} The objective of this legislation is to protect the collective intellectual rights and traditional knowledge of indigenous peoples’ creations. ^{24/} In addition, draft legislation No. 36 has been elaborated by the Commission of Indigenous Issues of the Legislative Assembly to create the Institute of Traditional

^{18/} Ibid, pp. 27-8.

^{19/} Ibid, p. 26.

^{20/} See also COP decision V/26B, paragraph 1.

^{21/} Law nr. 20 (through Decree nr. 12, of 2001). Forms for the registration of traditional knowledge have been adopted, and the Government of Panama is considering legislation that would encompass all sorts of traditional knowledge, including biodiversity-related traditional knowledge.

^{22/} Government of Namibia, Thematic report on access and benefit-sharing.

^{23/} See thematic report from Panama on benefit-sharing, reference to legislation in *Gaceta Oficial*, No. 24 083, 27 June 2000.

^{24/} For example, inventions, models, drawings and designs, innovations contained in images, figures, symbols, graphics, petroglyphs and other detail, including the cultural elements of their history, music and art and traditional artistic expressions, which could be used for commercial purposes through a special system of registry, promotion and commercialization of their rights, in order to emphasize indigenous and socio-cultural values.

Indigenous Medicine. This legislation is to provide a legal framework for access to genetic resources that have medical applications and to provide measures for the equitable sharing of benefits. ^{25/}

D. National non-intellectual-property-rights instruments that may afford protection to traditional knowledge

34. In addition to the national biodiversity laws and access and benefit-sharing regimes discussed above, a number of Parties have passed, or are in the process of drafting, other laws that have implications for the protection of traditional knowledge, such as those specifically designed to recognize and protect rights and interests of indigenous and local communities.

35. Many countries that have jurisdiction over indigenous and local communities have in place either a principal law, or a suite of laws, recognizing and protecting certain rights of such communities. Many of these laws reflect constitutional and/or international and domestic treaty obligations, and court rulings. Taken as a whole, such laws generally cover such matters as land rights, protection of cultural heritage, freedom of religious expression, community self-governance, administrative matters, and funding. Examples of such laws include the American Indian Religious Freedom Act 1981 and Indian Arts and Crafts Act 1990 of the United States of America; ^{26/} Canada's Indian Act 1985; ^{27/} the Aboriginal and Torres Strait Islander Heritage Protection Act 1984, Aboriginal and Torres Strait Islander Commission Act 1989 and Native Title Act 1993 in Australia; ^{28/} Malaysia's Aboriginal Peoples Act 1954; and the Philippines Indigenous Peoples Rights Act 1997. ^{29/} Traditional knowledge, or particular components of it such as sacred knowledge, may be protected under such laws. In some instances, test cases may be required to test the limits of applicability of such laws to the protection of traditional knowledge. ^{30/} In some cases, whether traditional knowledge is protected may depend on court rulings, and protection may only be granted under certain circumstances.

36. The Philippines Indigenous Peoples Rights Act 1997, however, does provide an example of such a law that is designed *inter alia*, to provide explicit protection to traditional knowledge. ^{31/}

E. Recognition of customary law protections for traditional knowledge

37. Indigenous and local communities embodying traditional lifestyles generally have their own systems of laws and practices for protecting and regulating the use of their traditional knowledge. ^{32/} However, recognition of such customary systems varies widely among countries. While some countries have given statutory recognition, in other countries (limited) recognition of traditional customary law systems, or elements of them, has been given by the courts. The recognition of customary law is likely to

^{25/} See also Dutfield 2000:15.

^{26/} Battiste M and Henderson JY 2000. *Protecting Indigenous Knowledge and Heritage: A Global Challenge*. Purich Publishing Ltd, Saskatoon, Canada. pp. 109 and 158.

^{27/} Ibid, pp. 70 and 217-219.

^{28/} Janke T 1998. *Our Culture : Our Future – Report on Australian Indigenous Cultural and Intellectual Cultural Property Rights*. Michael Frankel and Company, Australian Institute of Aboriginal and Torres Strait Islander Studies and the Aboriginal and Torres Strait Islander Commission, Canberra, Australia. Pp. 85, 283, 286,

^{29/} Dutfield 2000:18-19

^{30/} Janke 1998:168-169.

^{31/} Dutfield 2000:18-19.

^{32/} Cassidy and Langford 1999:Preface; WIPO 2001a:58-65; Janke 1998.

derive from national and/or subnational constitutions and to be codified in statutes, while case law is likely to clarify particular principles, particularly in relation to the recognition of certain customary rights *vis-à-vis* the national legal system.

1. Statutory law

38. The recognition of indigenous and local community customary laws in national legislation may be an important facet of the implementation of both Articles 8(j) and 10(c). ^{33/} The Philippines provides two examples of statutory recognition of indigenous and local community customary laws: the Aboriginal Rights Act 1997 and the Executive Order No. 247. In East Malaysia, in the states of Sabah and Sarawak, native customary laws are administered and enforced by Native Courts established by relevant state laws. ^{34/}

39. The Government of Namibia notes that customary rules and traditional lifestyles are being eroded by the forces of modernization and commercialization. The Namibian intellectual property right and formal legal systems do not recognize customary systems and there is a need to integrate customary law into modern policy/legislation. The scope of the Namibian draft access legislation excludes customary use in order not to put controls on customary practices and traditional knowledge but rather to put control on the access to such practices and knowledge for their better protection. ^{35/}

2. Case-law

40. There is also an emerging body of case-law in which precedents have been established with respect to the recognition of some of the elements of customary law and which may find application in relation to the misappropriation of traditional knowledge, should such actions be brought before the courts. In Australia, in relation to the Copyright Act 1968 (Cwth) where breaches of the Act have occurred in relation to the misappropriation of indigenous designs and artworks, customary law has been taken into account in the judges' decisions and in the award of damages. ^{36/} While such cases have been in relation to Aboriginal artworks, nevertheless, the principles established in such decisions could be used for the protection of other aspects of traditional knowledge.

41. In Hawaii, customary law derives support from the state's constitution and statutes, whereby protection of traditional and customary rights of native Hawaiians exercised for subsistence, cultural and religious purposes provides an example of a balance struck between the historical practices of indigenous peoples and modern property rights and development demands. Hawaii's case-law demonstrates that the doctrine of custom can be used within Anglo-American law as a basis for the protection of the traditional customs and practices of indigenous peoples. ^{37/} Again, the extent to which the doctrine of custom might apply to the protection of traditional knowledge, or particular components of it, may await the determination of the court.

^{33/} See also paras. 58-60 of doc. UNEP/CBD/TKBD/1/2, UNEP/CBD/WG8J/1/2, paras 30-34.

^{34/} See, for example, Empeni Lang 1998. Administration of native courts and enforcement of native customary laws in Sarawak. *Journal of Malaysian and Comparative Law*, Vol. 25, pp. 89-126.

^{35/} Thematic report on access and benefit-sharing, Namibia.

^{36/} Puri K 1998. The Experience of the Pacific Region. In *UNESCO-WIPO World Forum on the Protection of Folklore, Phuket, Thailand, April 8 – 10, 1997*. UNESCO publication No. CLT/CIC/98/1, 1998. pp.:41-59. See in particular Professor Puri's comments on the case *Milpururru v. Indofurn Pty. Ltd. And Others*, in the Federal Court of Australia.

^{37/} Hare CM 1998. The use of customary law to protect the cultural practices of Indigenous Peoples in Hawai'i. *Journal Malaysian and Comparative Law* Vol. 25, pp. 241-251, p.249.

F. Models for national instruments for protection of traditional knowledge

42. There are several models for the protection of traditional knowledge that could be useful starting points for the development of national legislation. These include: Model Legislation for the Recognition and Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources drafted by the Organization of African Unity (OAU) Scientific, Technical and Research Commission (Addis Ababa 1998); a model Community Intellectual Rights Act, proposed by the Third World Network; and the UNESCO/WIPO Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions. All three have been analysed and discussed in previous documents prepared under the Convention on Biological Diversity. ^{38/}

G. Community registers of traditional knowledge

43. In paragraph 17 of decision V/16, the Conference of the Parties requested “Parties to support the development of registers of traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles”.

44. A registry has been described as an “ordered collection or repository of information. The term registry implies that the information in the repository acquires a certain legal status by virtue of being included on the registry. Consequently, a registry is not only a compilation, list or database that serves merely the purpose of providing retrievable data to defined users. A registry is a list or database in which specified information can be registered in order to confer legal rights relating to that information. The registration of information in a registry puts that information ‘on the record’ and records the fact that the registrant asserts a claim to that information.” ^{39/}

45. However, it should be kept in mind that to compile traditional knowledge into registries (or compilations or databases) has no legal relevance whatsoever until *sui generis* protection on such registries is adopted. Otherwise, existing legal provisions (such as Article 2(5) of the Berne Convention, Article 10(2) of the TRIPs Agreement, and Article 5 of the WIPO Copyright Treaty) limit their protection to the original or creative manner of selecting and arranging data. In addition, the database support itself (that is, the software code) may be protected under copyright. The database owner may also take technical measures to protect the data, in which case any attempt to circumvent the technical protection may also be deemed illegal (WIPO Copyright Treaty, Article 11). The name of the database may also be protected (as a trademark or a service mark). But as far as the data themselves are concerned, where they are not covered by specific mechanisms of intellectual property protection (such as patents, trade secrets, copyright, etc), the only existing mechanisms for the protection of database contents are those of Article 39.3 of the TRIPs Agreement (in a very narrow context), and the European Community Directive 96/9/CE, on databases.

46. Traditional knowledge registers (or registries) have been developed by indigenous and local communities in order to promote and protect traditional knowledge. They are generally compiled by

^{38/} See UNEP/CBD/WG8J/1/2, paras. 13-17; and also UNCTAD 2000, . *Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices Geneva 30 October- 1 November 2000* doc. TD/B/COM.1/EM.13/2., paras. 48-50

^{39/} WIPO 2001c. *Progress Report on the Status of Traditional Knowledge as Prior Art prepared for the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore*, Second Session, Geneva, December 10 -14, 2001. Doc. WIPO/GRTKF/IC/2/3, July 1, 2001, para. 118.

communities or community groups for their benefit. They have been found useful for organizing knowledge in view of allowing protection and improved management of the community resources. ^{40/}

47. Traditional knowledge registers may serve a number of purposes which include:

(a) Maintenance and preservation of traditional knowledge by virtue of recording and documenting it; ^{41/}

(b) Protection against the inappropriate granting of intellectual property rights (sometimes referred to in the context of the Convention on Biological Diversity as “biopiracy”) through provision of evidence of traditional knowledge as prior art; ^{42/}

(c) Raise awareness of communities with respect to the values of traditional knowledge of indigenous and local communities;

(d) Encourage the long-term conservation and promotion of natural resources and their related knowledge;

(e) Provide information to interested parties who may be interested in obtaining information available in the registry, in exchange for a fee;

(f) To be used as part of a legislative system for the assertion of intellectual property rights over traditional knowledge (e.g., a national *sui generis* intellectual property law to protect indigenous and local knowledge).

48. Widely acclaimed traditional knowledge registries or databases have been developed by various initiatives in India, Peru, the Philippines, and by the Inuit of Nunavik and the Dene in Canada. As WIPO reports, such registers may provide a valuable source of public-domain traditional knowledge and exchangability of information on registered traditional knowledge from these registers with existing intellectual property information systems may become important, if legal protection is accorded to registered knowledge. ^{43/}

49. A number of countries have reported that the establishment of traditional knowledge registers are part of their proposals for a (*sui generis*) law to protect traditional knowledge. For example, Namibia has included a mechanism of a community register in its draft *sui generis* legislation. ^{44/} The Government of Venezuela has established BIOZULUA, a database that compiles, orderly biodiversity-related traditional knowledge with the aim of protecting (keeping it secret, for the time being) and commercializing it. This

^{40/} Downes and Laird 1999. *Community Registries of Biodiversity-Related Knowledge: The role of intellectual property in managing access and benefit*. Prepared for the UNCTAD Biotrade Initiative p. 4..

^{41/} Some countries have noted the fact that because traditional knowledge has not been documented, this has contributed to the erosion of traditional knowledge systems (e.g., in Namibia). See also UNCTAD Secretariat, 2000, paras. 57-59.

^{42/} The Panel of Experts on ABS, during the second meeting, acknowledged that traditional knowledge registers could provide protection which could be used to avoid the inappropriate granting of intellectual property rights. Doc. UNEP/CBD/WG-ABS/1/2, para. 77(c)

^{43/} WIPO 2001c, para. 118.

^{44/} Thematic report on access and benefit-sharing, Namibia.

database has come to the attention of a number of indigenous communities and Governments in Central and South America.

IV. SUBNATIONAL INSTRUMENTS RELEVANT FOR THE PROTECTION OF TRADITIONAL KNOWLEDGE

50. Many countries, and particularly those that are larger and more populous, operate on a federal system of government whereby, subject to constitutional arrangements, national governments assume certain responsibilities, for example, those related to trade and national security, while subnational governments operating at the provincial or state (second tier) and local (third tier) levels exercise responsibilities in relation to, for example, land and natural resource management. Usually, intellectual property laws are the responsibility of national governments, but subnational and local-level governments may create and administer laws and policies that can have both direct and indirect impacts on the protection of traditional knowledge. In this section an assessment is made of a range of instruments that are being used, or have the potential to be used, to protect traditional knowledge of indigenous and local communities at the second and third tiers of government.

A. Second-tier government instruments

51. Governments operating at the second tier usually have a range of instruments and mechanisms at their disposal that have implications for the protection of traditional knowledge, and which may be additional and complementary to such laws operating at the national level. These may be categorized as follows:

- (a) Legislation governing land and natural resource use;
- (b) Legislation governing indigenous and local community affairs;
- (c) Commercial and consumer protection laws; and
- (d) Laws governing the academic and research sector.

52. A common aspect of these instruments is that they are usually not uniform among subnational jurisdictions within the one country, and can exhibit sometimes quite wide variation.

B. Third-tier/indigenous and local community government administered instruments

53. In some countries, the local level may be defined in terms of a third tier of government, and many indigenous and local communities are constituted as self-governing communities within the national and/or subnational framework of governance. Indigenous and local communities that enjoy powers of self-governance usually are responsible for the lands and waters and natural resources within the boundaries of their local government area, subject to relevant national laws and policies. National and subnational laws that provide for community self-governance usually enable such communities to take a range of measures, such as, enact local laws or by-laws to protect cultural heritage, establish community development plans

governing resource use, ^{45/} and develop strategies for the protection of their traditional knowledge. Such measures/laws also frequently enable such communities to control access to their territories. Access is usually granted through a permit system based on the prior informed consent of the community council enabling communities to control activities by outsiders within their territories. Such activities may entail conditions regarding access to and use of genetic resources and traditional biodiversity-related knowledge. ^{46/}

V. SYNERGIES BETWEEN INTELLECTUAL PROPERTY RIGHTS INSTRUMENTS AND THE OBJECTIVES OF ARTICLE 8(j)

54. Under current laws, the best results for the protection of traditional knowledge are likely to come from an approach that combines existing intellectual-property laws, traditional-knowledge systems, and alternative mechanisms such as contracts, access agreements and licensing. The Government of Australia, in a submission to the Conference of the Parties at its third meeting listed the various mechanisms that had been suggested in various international forums to protect traditional knowledge. These were: (a) operating within existing intellectual property regimes; (b) the creation, through legislation or other means, of new forms of intellectual property rights; (c) funding mechanisms; (d) an equitable sharing of benefits arising from the contributions, including elements of using traditional knowledge made by indigenous and local communities; (e) contractual agreements such as material transfer agreements; (f) codes of conduct; (g) rights in relation to cultural products and expressions, including cultural property; (h) greater reliance on the laws of unconscionable behaviour and unjust enrichment. ^{47/} Experiences from a number of countries, such as the Andean Community, Costa Rica, Brazil, India, Nigeria, Panama, Thailand and the Philippines support this approach. ^{48/}

55. In any consideration of intellectual property right laws and the objectives of Article 8(j), consideration should be given to the different uses to which genetic resources may be put. For example, plant genetic resources for agriculture are treated quite differently to those used in the pharmaceutical industry, which in turn has implications with respect to intellectual property rights and benefit-sharing arrangements. Benefit-sharing agreements are probably easier to achieve with medicinal plants and pharmaceuticals than with seeds and plant varieties. Whereas a new medicine is likely to be derived from a single active principle isolated from a particular species or at least a mixture of a small number of plants, a new plant variety may descend from dozens of varieties from many dispersed locations. Compensating many countries and/or communities will involve much higher transaction costs and the share of benefits to each recipient is likely to be correspondingly modest. ^{49/} Traditional knowledge that is associated with the

^{45/} For a further discussion of community development plans, see the background note by the Executive Secretary on Guidelines and recommendations for the conduct of cultural, environmental and social impact assessments regarding developments proposed to take place on sacred sites and on lands and waters occupied or used by indigenous and local communities (UNEP/CBD/WG8J/2/6/Add.1).

^{46/} UNEP/CBD/WG8J/1/2, para. 41.

^{47/} UNEP/CBD/COP/3/Inf.20, 1996

^{48/} UNCTAD 2000. Report of the Expert Meeting on Systems and National Experiences for the Protection of Traditional Knowledge, Innovations and Practices. Doc. TD/B/COM.1/33 // TD/B/COM.1/EM.13/3, 6 December 2000, para 21.

^{49/} Traditional knowledge that is associated with the more practical aspects of traditional lifestyles, such as methods and technologies for preparing medicines, maintaining crop diversity, controlling pest infestations, and that could translate into many different applications of traditional knowledge in the form of products and services, and that could help to support the continuation of traditional lifestyles and economic self-sufficiency, could benefit from the application of intellectual property laws. Dutfield G 1999, pp. 2 and 38.

more practical aspects of traditional lifestyles, such as methods and technologies for preparing medicines, maintaining crop diversity, controlling pest infestations, and that could translate into many different applications of traditional knowledge in the form of products and services, and that could help to support the continuation of traditional lifestyles and economic self-sufficiency, could benefit from the application of intellectual property laws. ^{50/}

56. Country experiences, expert opinion ^{51/} and the emerging experiences of indigenous and local communities, albeit limited, suggest that the various forms of intellectual property protection can be used to protect some components of traditional knowledge. With some reforms, for example, those suggested by the Panel of Experts on Access and Benefit-sharing during its second meeting, particularly to the patent system, formal intellectual property systems can accommodate the protection of traditional knowledge. ^{52/} The present section provides a brief overview of the applicability of formal intellectual property rights to the protection of traditional knowledge.

A. *Patents and petty patents*

57. Reforms to the patent system have focused on a requirement in applications to disclose the origin of genetic resources and/or the traditional knowledge used for products and processes that are subject of intellectual property rights. Such reforms are discussed extensively in paragraphs 6-16 and 27-34 of the note by the Executive Secretary on the role of intellectual property rights in the implementation of access and benefit-sharing arrangements (UNEP/CBD/WG-ABS/1/4) and are addressed in the report of the Working Group on Access and Benefit Sharing (UNEP/CBD/COP/6/6)

58. In addition to the reforms identified above, petty patents, which are a modified form of patent, may provide an appropriate means for the protection of some forms of traditional knowledge. Petty patents cover any sort of inventions, including processes, and are granted for inventions that are not subject to an examination. When an inventor is not sure whether their invention qualifies for a patent, a petty patent may be required, which, nonetheless can be revoked at a later stage on grounds of lack of novelty or inventiveness. Petty patents differ from conventional patents in several ways:

- (a) The non-obvious requirement is far less stringent and may even be discarded in favour of a less demanding “inventive step”;
- (b) The period of protection is shorter; and
- (c) The patent examination is either deferred or replaced by a registration system (as with trademarks).

59. While petty patents do not convey as much legal certainty as normal patents, they nonetheless may be very useful tools for small and medium enterprises. Petty patents vary more than other types of intellectual property rights because there are no international agreements or conventions covering them. ^{53/}

^{50/} Cassidy and Langford 1999:3.

^{51/} See, for example, Pires de Carvalho N, no date. *From the Shaman's Hut to the Patent Office: How Long and Winding is the Road?* Paper prepared for the Intellectual Property Division, World Trade Organization Secretariat, Geneva, Switzerland.

^{52/} UNEP/CBD/WG-ABS/1/2, para 77 (a).

^{53/} Posey and Dutfield 1996:81-82.

60. It is likely that some traditional knowledge or know-how, particularly that relating to medicinal preparations derived from plants, would meet the inventive step condition. Although a plant extract and the method used to obtain it may be “obvious”, it could still be novel, useful, and an inventive step beyond anything already in the public domain. ^{54/} This point is reinforced if medicines prepared by unique methods and from mixtures intended to achieve synergistic effects or to mitigate harmful side-effects are considered. Kenya has passed a law, The Industrial Property Act 1989, that allows petty patents for traditional medicinal knowledge which includes “herbal as well as nutritional formulations which give new effects”. ^{55/}

61. Petty patents could become a useful tool to protect traditional knowledge. However, as yet only a few countries (such as Brazil, China, Germany, Japan and Malaysia) recognize them, and there are no international agreements, like the Patent Cooperation Treaty, to simplify the effort of applying in several countries. Indigenous and local communities might gain from efforts to increase recognition of this type of intellectual property right. Uncovering and publicizing the actions of companies and institutions seeking to apply for patents based on information disclosed in foreign petty patent applications may also prove to be worth while. ^{56/}

B. Geographic indications

62. Geographical indications are important because they can add a strong element of cultural identification to products; and even more importantly, they are a mechanism for the indirect appropriation of traditional techniques. They permit traditional-knowledge holders to appropriate elements of their own identification and associate those elements to their products and services.

63. Although so far the use of geographic indications has been confined mainly to certain beverages and foodstuffs, the principles of geographic indications could guide laws to protect certain traditional know-how and help maintain the economic value of locally produced goods including herbal formulations. ^{57/}

C. Trade secrets

64. The knowledge or know-how of an individual or a whole community might be protected as a trade secret as long as the information has commercial value and provides a competitive advantage, whether or not the community itself wishes to profit from it. If a company obtains such information by illicit means, legal action may be used to force the company to share its profits. ^{58/} Conceivably, a considerable amount of traditional knowledge could be protected by trade secrets. Restricting access to their territories and exchanging information with outsiders through agreements that secure confidentiality or economic benefits would be appropriate means to this end. It is possible that knowledge shared by all members of a community may not qualify as a trade secret. However, “if a shaman or other individual has exclusive

^{54/} Gollen M 1993. An intellectual property rights framework for biodiversity prospecting. In Reid WV, *et al.*, (eds), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development*. WRI, INBio, Rainforest Alliance, ACTS, Washington DC. Pp. 159 – 197, at p.173; Cottier T 1997. *The Protection of Genetic Resources and Traditional Knowledge in International Law: Past, Present and Future*. Discussion Paper submitted to the International Conference on Creativity and Innovation, Grassroots, Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad, India, 11-14 January, 1997.

^{55/} Cited by Posey and Dutfield 1996:82-3.

^{56/} Ibid.

^{57/} Dutfield 1999:67.

^{58/} Gollen 1993.

access to information because of his status in the group, that individual *or the indigenous group together* probably has a trade secret”. ^{59/} There are also traditional communities with no more than 20 or 30 individuals who dwell in remote areas of the world and whose knowledge remains secret, raising the principle that the concept of secrecy is a function of the availability of knowledge to outsiders, and not from the number of people within a community who share it.

D. Trademarks

65. Certification trademarks exist in the laws of some countries. They can be used by small-scale producers to guarantee to customers that goods are genuine in some way or another, and perhaps to support production that is conducted in an environmentally sustainable manner. Certification marks indicate that the claims made by the traders have been authenticated by an organization independent of the individual or company making or selling the product. This is likely to be a regional trade association that has registered its own collective mark. In Britain, the makers of a British cheese called Stilton are entitled to use the “Stilton” certification trademark. ^{60/} In the United States, the Intertribal Agriculture Council licences use of its annually-renewable “Made by American Indians” mark for the promotion of agricultural or other Indian-made products that have been produced and/or processed by enrolled members of recognized tribes. ^{61/}

66. However, labelling has been unsuccessful in some United States states in terms of promoting trade in indigenous peoples’ products. This may be because customers are unaware of the marks, do not care whether the articles they purchase are genuine, ^{62/} or are confused by the labels. These problems illustrate the difficulties that can arise from the use of trademarks, certification and geographic indications for manufactured goods and artwork. Nevertheless, they can be successful marketing strategies, especially if the traders have a clear understanding of why people wish to buy their articles. ^{63/}

E. Agreements, contracts, and licences

67. The use of various forms of contractual arrangement to secure interests in genetic resources and/or associated traditional knowledge is addressed in paragraphs 60-78 of the note by the Executive Secretary on the role of intellectual property rights in the implementation of access and benefit-sharing arrangements prepared for the Working Group on Access and Benefit-sharing (UNEP/CBD/WG-ABS/1/4). The elements for consideration in the development of guidelines for access to genetic resources and benefit-sharing contained in note by the Executive Secretary on the subject prepared for the Working Group on Access and Benefit-sharing (UNEP/CBD/WG-ABS/1/3) provide

^{59/} Axt JR, Corn ML, Lee M and Ackerman DM 1993. *Biotechnology, Indigenous peoples and Intellectual Property Rights*. Congressional Research Service, Washington DC, USA; Dutfield 1999:70.

^{60/} To be eligible, cheese must be produced in or near the village of Stilton, with the traditional ingredients, and in accordance with traditional manufacturing techniques. Producers cannot use the mark if they fail to conform to these conditions of manufacture (Dutfield G. 1997. *Can the TRIPs Agreement Protect Biological and Cultural Diversity*. Biopolicy International Series No. 19. African Centre for Technology Studies, Nairobi, Kenya).

^{61/} Trademarks, labelling and also independent certification are used in India for marketing Darjeeling Tea. Not only does genuine Darjeeling tea carry a special logo which is the intellectual property of the Tea Board of India, but only such tea can be referred to on the packaging as “Darjeeling”, “pure Darjeeling” and “100% Darjeeling”. The organic Darjeeling tea gardens are certified by two organizations: the Institut für Marketeologie, Switzerland, and Naturland-Verband, Germany, which carry out periodic inspections. (Dutfield 1999:70-71).

^{62/} Axt et al 1993.

^{63/} Dutfield 1999:71.

comprehensive guidance with respect to such matters as stakeholder participation, prior informed consent, mutually agreed terms, benefit-sharing, and monitoring of compliance, and are particularly relevant for the drawing up of contracts.

F. Granting of intellectual property rights not to preclude continued use of traditional knowledge

68. While formal intellectual property systems can be used to provide protection for traditional knowledge, it is also important to ensure, as the Panel of Experts on Access and Benefit-sharing at its first meeting observed, “that granting of intellectual property rights does not preclude continued customary use of genetic resources and related traditional knowledge.” ^{64/} This suggests the need for a framework by national Governments to address situations where genetic resources covered by customary law are being accessed as it will be the State’s responsibility to ensure the continued customary use of genetic resources and traditional knowledge.

69. Some countries have indicated that grants of intellectual property rights under their systems will not interfere with customary usages of biological resources. In the case of New Zealand, nothing in the national system would prevent continued customary use of a particular resource should the resource feature in a new patent application. This issue is being further considered in the current revision of the New Zealand Patents Act. ^{65/} In Switzerland, Article 7.5 of the draft Swiss Guidelines on Access to Genetic Resources provides that access to genetic resources and related activities should not impede the continuation of traditional uses of genetic resources. ^{66/}

70. It was also pointed out at the UNCTAD Expert Meeting on Systems and National Experiences for the Protection of Traditional Knowledge, Innovations and Practices that, while commercialization of traditional knowledge-based products and services provides a powerful incentive to communities to retain their traditional knowledge base, extreme care needs to be taken to ensure that the resource base of indigenous and local communities is not over-exploited or permanently destroyed. Making the commercialization of traditional knowledge sustainable takes a number of measures at several levels: (*in situ*) conservation; generating awareness about the importance of sustainable resource use; monitoring resource use; changing policy for access to traditional knowledge with the consent and participation of indigenous and local communities; training in sustainable harvesting; and assisting in simple first- and second- degree processing of traditional knowledge-based products to add value. As the Expert Meeting observed, “the current IPR regime does not create a level legal field for indigenous and local communities and therefore it is all the more important to assess the risk of over-exploitation and consequent loss of traditional knowledge associated with commercialization”. ^{67/}

VI. CONSTRAINTS ON THE APPLICATION OF INTELLECTUAL PROPERTY RIGHTS FOR THE PROTECTION OF TRADITIONAL KNOWLEDGE

71. While it is clear that the different forms of intellectual property can be used in certain circumstances to protect traditional-knowledge holders against unfair use of their knowledge, and also to

^{64/} UNEP/CBD/COP/5/8, para. 131(c)

^{65/} Government of New Zealand, thematic report on access and benefit-sharing.

^{66/} Government of Switzerland, Thematic report on access and benefit-sharing.

^{67/} UNCTAD 2000, para. 29.

enable them to commercially benefit from their knowledge through their own application of formal intellectual property rights, nevertheless there are a number of constraints within the formal intellectual property system that impede the effective protection of traditional knowledge. These constraints can be categorized as being either “legal” or “operational”,^{68/} and are discussed under the various headings below.

A. *Legal constraints*

1. *Definitional issues*

72. Some Parties have argued that agreed definitions are essential before entering into further discussions on the protection of traditional knowledge in the context of the Convention on Biological Diversity.^{69/} The definition of “relevant key terms and concepts in Article 8(j) and related provisions” is to be addressed in task 12 of the programme of work on the implementation of Article 8(j) and related provisions. In their thematic reports on access and benefit-sharing, a number of countries, including the Central African Republic, Panama, India and Namibia, submitted their national definitions of the terms found in Article 8(j). As noted above, issues relating to traditional knowledge, including the establishment of a common understanding of the term traditional knowledge, are also being addressed by an ad hoc panel of experts on traditional knowledge appointed by the Conference of the Parties to the Convention to Combat Desertification.

73. However, the lack of definitions, as important as they may be, should not stand in the way of national Governments adopting measures for the effective protection of traditional knowledge. It should be noted, for example, that many patent laws do not define inventions, they just identify the characteristics of patentable inventions. Likewise, no trademark law defines signs, trademark laws only require signs to be distinctive in order to deserve protection (some laws add that signs must be visible, others accept non-visible signs as subject matter of protection).

74. In the background note prepared by the WIPO Secretariat for the first meeting of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, the need for more rigorous use of terminology is recognized and annex 3 sets out the prevalent use of relevant terms in international discussions regarding traditional knowledge. It also contains a section on “terminological and conceptual issues” in the main text of the document.^{70/} The Intergovernmental Committee was invited to consider the issue of the definition of traditional knowledge in the following terms: “Based on the use of relevant terms as set out in Annex 3, the Intergovernmental Committee may wish to delineate the scope of the subject matter in respect of which the Member States wish to discuss the application of intellectual property protection, for the purpose of having a definition of the term ‘traditional knowledge.’”^{71/}

^{68/} WIPO 2001a:8.

^{69/} Thematic reports on access and benefit-sharing by Austria, Switzerland, Norway.

^{70/} WIPO 2001b, *Matters Concerning Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore - An Overview*. Intergovernmental Committee on Intellectual property and Genetic Resources, Traditional and Folklore, First Session, Geneva, April 30 to May 3, 2001. Doc. WIPO/GRTKF/IC/3, March 16, 2001.paras. 64-71.

^{71/} Ibid, annex 4, and paragraphs 78-80.

2. Trademarks

75. The requirement that trademarks be used commercially means that trademarks are not an appropriate mechanism for many indigenous and local communities that do not want their designs, symbols and words used in this way. While many such communities view the appropriation and trademarking of indigenous or local community names, words, symbols and designs as unfair, it would be prohibitively expensive to register trademarks for all existing words, symbols and designs that indigenous and local communities may want to protect from commercial use by others, or to allow commercial use by indigenous or local community enterprises. Confusion created by use of indigenous or local community symbols, etc., by non-indigenous or local community business may also affect potential licensing and endorsement opportunities for those communities (this is particularly so in North America where, for example, trademarks on Indian head designs have been used by non-aboriginal businesses to market everything from firearms and axes to tobacco, gasoline and cars. ^{72/} In some cases, trademarks using indigenous or local community symbols may have the effect of reducing value of existing and future indigenous or local community marks. Indigenous and local community businesses may also suffer from confusion and crowding out if non-indigenous or local community firms sell competing products, such as crafts and clothing, using indigenous or local community words or images. ^{73/} Indigenous and local communities seeking to file trademarks with their distinctive designs or symbols might also be successfully opposed by non-indigenous or local community that have already trademarked similar designs. Thus most indigenous and local communities will probably need to rely primarily on common-law protection for their marks rather than seeking registration under trademarks law. ^{74/}

3. Patents

76. Patents are an established means of protecting inventions around the world, but to date have been little used by indigenous and local communities or their members. In some countries, some indigenous and local communities or their members have formed partnerships with companies and institutions that have the financial resources and expertise to patent and commercialize chemical substances and drugs that originate from the traditional knowledge of plants.

77. A number of Governments (for example, India, Turkey, Namibia, Ecuador) have argued that the patent system as it currently operates, is inappropriate for the protection of traditional knowledge, innovations and practices of indigenous and local communities. There is considerable uncertainty as to how patent law applies to traditional knowledge. If an indigenous or local community (or an individual from such a community) files a patent for an invention derived from traditional knowledge, questions may arise as to whether the criteria of novelty, inventive ingenuity, and utility or industrial applicability can be met. Questions relating to public disclosure may also be raised when traditional knowledge has been previously shared widely within an indigenous or local community, but not with outsiders. ^{75/} Similarly, traditional knowledge may not be commonly used by national patent offices as a measure of novelty and inventive ingenuity when examining patent applications by non-indigenous or local communities. Examiners primarily use electronic databases to search for novelty. traditional knowledge is not normally searched because it is less readily accessible. If a patent is sought for an invention based on traditional

^{72/} Cassidy and Langford 1999:22.

^{73/} Ibid, p. 23.

^{74/} Ibid.

^{75/} Ibid, p. 25.

knowledge, which is widely known within an indigenous or local community, the users of this knowledge may need to alert the patent office that the patented technology is not novel. 76/

78. It has been suggested that possible means may exist to ensure patents provide protection for traditional knowledge and for an equitable sharing of benefits arising from genetic resources by:

(a) The introduction of a requirement in intellectual property rights applications that relevant provisions of the Convention on Biological Diversity have been followed with respect to prior informed consent and mutually agreed terms;

(b) A requirement in intellectual property rights applications to disclose the origin of genetic resources and/or the traditional knowledge used for products/processes that are the subject of intellectual property rights. 77/

79. By providing for disclosure of the origin of genetic material and any associated traditional knowledge, including proof of prior informed consent between the indigenous and local community of origin as well as the country of origin and receiving country (or private company), intellectual property rights would become one means to implement relevant Convention obligations, including those entailed by Article 8(j).

80. For many traditional communities, patents are viewed primarily as a source of concern. There are numerous cases where traditional knowledge has been used by others to develop a product that is then patented, with neither prior informed consent of the traditional-knowledge holders, nor benefit-sharing. This concern is exacerbated by the fact that some national patent laws, notably those of the United States and Japan, consider that an “invention” is “novel” even if it exists in another country but was not documented. Thus it is perfectly legal in these countries to simply copy and patent traditional knowledge that has been in use in other countries for centuries, but has not been documented in written form. This has led to defensive measures, such as the establishment of registries of traditional knowledge. 78/

81. In this context, two specific points might be made. First, a few countries, such as the United States and Japan, do not recognize undocumented traditional knowledge held abroad as prior art. Therefore it appears to be possible in those countries to reformulate this knowledge - in the sense of presenting it in a more “scientific” way - and apply for a patent. Second, it can be argued that the disproportionate legal treatment of commercially useful knowledge held by companies and similarly useful knowledge held by indigenous peoples is inherently unfair. When large industrial concerns in new technological fields find the intellectual property rights system cannot protect their innovations, it seems that new forms of intellectual property rights are created in response. Traditional-knowledge holders, on the other hand, do not have the political influence to change the system in their favour. 79/ Also, they are rarely successful in ensuring that their own custom-based intellectual property rights systems are observed by others. It might also be added that modern intellectual property rights reflect, but also help to underpin

76/ Ibid.

77/ Norway. See also input from Spain - doc. UNEP/CBD/COP/4/Inf.30, 4 May 1998

78/ UNCTAD Secretariat 2000

79/ For example, compare the pace of evolution of protection for the semiconductor chip and protection of folklore - See Drahos P 1997, Indigenous knowledge and the duties of intellectual property owners. *Intellectual Property Journal*, Vol. 11, pp. 179-201.

(through the rewards they provide), a highly competitive “winner take all” business ethos, which is largely alien to most if not all indigenous communities. [80/](#)

4. *Trade secrets*

82. The benefit of patent rights is that they are recognized and enforceable, but the cost of obtaining and maintaining them is high. As a consequence, some indigenous and local communities may prefer to use trade secrecy (laws) rather than patents to protect their traditional knowledge or inventions arising from it. [81/](#) While trade secrecy law is complex, considerable progress has been made in recent years to harmonize the laws of trade secrets in many countries under the TRIPs Agreement.. However, it is also unclear how courts will view customary practices governing traditional knowledge in indigenous and local communities when cases based on trade secrecy laws are involved, because there have been few court rulings anywhere in the world related to this issue. [82/](#)

83. There are generally few legal grounds to prevent a third party from using a trade secret. Since redress normally focuses on the person who disclosed the confidential information, indigenous and local communities may find it difficult to gain fair redress. The use of traditional knowledge by third parties may also be difficult to stop through trade secrecy laws if the traditional knowledge is exploited in another country. Some countries may have weak protection for trade secrets, or may not extend this protection to traditional knowledge at all. [83/](#)

5. *Plant Breeder’s Rights*

84. Registration of Plant Breeder’s Rights usually only protects such rights of indigenous and local communities in their country. A breeder must register a new variety separately in each country in which protection is sought, however, UPOV allows citizens of the member countries to receive protection for new plant varieties in other UPOV member countries. [84/](#)

6. *Sui generis systems*

85. One of the problems with *sui generis* systems is that protection afforded traditional knowledge in one country may not be afforded to it in another. This means that bilateral and multilateral agreements need to be forged between countries in which markets for certain goods and services created by indigenous and local communities exist, or a set of minimum standards should be established and to which all countries would adhere. Switzerland has suggested that the development of national *sui generis* systems may not provide adequate protection for traditional knowledge in situations/cases where the same knowledge is found in more than one country, that is, in situations where some components of traditional knowledge are regionally based. The *sui generis* system could then be circumvented by using the same traditional knowledge from another country with no *sui generis* system of protection. A multilateral framework may therefore be necessary to ensure the protection of traditional knowledge and to ensure protection of all stakeholders involved. [85/](#)

[80/](#) Dutfield 2000:9.

[81/](#) Cassidy and Langford 1999:25.

[82/](#) Ibid, p. 28.

[83/](#) Ibid.

[84/](#) Ibid, p. 29.

[85/](#) Issue of regional traditional knowledge also raised by WIPO in document WIPO/GRTK/IC/1/3, para. 70.

B. Operational constraints

86. A number of operational constraints that inhibit the effectiveness of formal intellectual property rights systems to provide protection have been identified. These include:

- (a) The unfamiliarity among traditional-knowledge holders with the intellectual property system;
- (b) Inequities inherent in the system due to the high cost of applying for, acquiring, maintaining and enforcing some forms of intellectual property rights;
- (c) Difficulties encountered by patent examiners in the discovery of relevant traditional knowledge as prior art.

87. Such operational questions are perhaps as important, if not more so than, the legal issues discussed above.

1. The unfamiliarity among traditional-knowledge holders with the intellectual property system

88. In its recent report, WIPO found that one of the biggest problems confronting traditional-knowledge holders was the inaccessibility of the formal intellectual property system. ^{86/} This inaccessibility is due in large part to the unfamiliarity of most indigenous and local communities with the various forms of intellectual property that comprise the formal system. In addition to the philosophical differences and worldviews embedded in the diversity of customary systems there is the general problem of a formal system that is based on document-intensive, codified and governmentally administered structures and procedures, and in which most modern intellectual property debates and enforcement procedures presuppose the existence of formal government and written records, and a body of (case) law and precedent. This contrasts with local traditional customary systems of knowledge protection that are largely based on oral traditions and the authority of particular members (or classes of members) of the community. In addition many indigenous and local communities lack a system of governance that is heavily reliant upon written records. ^{87/}

2. Inequities inherent in the system due to the high cost of applying for, acquiring, maintaining and enforcing some forms of intellectual property rights

89. It is clear that many indigenous and local communities are not in a position to easily use formal intellectual property instruments. Therefore, in the interests of equity, procedures must be simplified, costs kept down, and financial and capacity-building assistance offered. ^{88/}

90. To register a trademark, for example, first requires that the necessary national legislation and institutions are in place. Then there are legal costs in registering the mark and policing its use. Marketing and market research costs can also be sizable. ^{89/} In the case of patents, while the costs of obtaining, maintaining and enforcing patent rights in some countries is low, one consequence of the potentially very

^{86/} WIPO 2001a:227.

^{87/} Ibid, p. 57.

^{88/} UNCTAD Secretariat 2000.

^{89/} Ibid.

high costs of defining and enforcing the rights in countries where the costs of hiring the services of patent attorneys can be considerable is that the system is more accessible to larger companies. This situation may also encourage free-riding by such firms since they may find that they can infringe the property rights of smaller firms, independent inventors and, for example, indigenous and local communities safe in the knowledge that these parties lack the economic muscle to mount an effective challenge. ^{90/}

3. *Difficulties encountered by patent examiners in the discovery of relevant traditional knowledge as prior art*

91. The term “prior art” generally refers to:

“[T]he entire body of knowledge which is available to the public before the filing date or, if priority is claimed, before the priority date, of an application for certain industrial property titles, principally patents, utility models and industrial designs. The identification of prior art constitutes a cornerstone for the substantive examination of applications for these titles, since requirements such as novelty and inventive step are established by comparing the claimed subject matter with relevant prior art.” ^{91/}

92. The practical issue is that, when determining the novelty and inventive step of an invention that might include traditional knowledge related to genetic resources, patent examiners cannot locate relevant traditional knowledge as prior art. This is because: (i) they do not have access to traditional knowledge information in classified non-patent literature; (ii) such information is not arranged in an orderly manner; and (iii) there are no effective research tools for the retrieval of such information. This situation persists in spite of the fact that considerable traditional-knowledge documentation exists in most parts of the world, for example, in natural science and anthropology museums, university libraries and public archives. In addition, as part of cultural heritage maintenance and revival initiatives, indigenous and local communities and other national/regional institutions have documented large amounts of traditional knowledge in order to conserve it and to avoid its disappearance. Many initiatives have developed extensive compilations and traditional knowledge databases but have not elaborated intellectual property options or strategies to protect the traditional knowledge itself or its compilations. ^{92/}

93. Within these circumstances, the overall need in addressing traditional knowledge as prior art may be to create operational links between intellectual property offices, on the one hand, and these existing traditional-knowledge documentation initiatives, on the other. ^{93/} This would require certain practical measures to be taken both by intellectual property offices and by traditional-knowledge documentation initiatives. ^{94/} However, it should be made clear that the objective of establishing these linkages and other practical measures is “not to put traditional knowledge, which is currently not in the public domain, into the public domain. Rather the objective is to ensure that traditional knowledge which is already in the public domain, is fully recognized and practically identifiable as being in the public domain and therefore unpatentable”. ^{95/}

^{90/} Dutfield 2000:9.

^{91/} WIPO 2001c, para. 2.

^{92/} Ibid, para. 5.

^{93/} Ibid, para. 6.

^{94/} Ibid, para. 67.

^{95/} Ibid, para. 10(iii).

94. If the development of such linkages takes into account the needs and priorities of all stakeholders, it might be possible to: (i) avoid the grant by intellectual property offices of patents for traditional knowledge-based inventions that are not novel and non-obvious; (ii) avoid the costs for traditional-knowledge holders and other interested third parties of challenging such patents; and (iii) facilitate recognition of the technological value of traditional knowledge by all users of non-patent literature, including intellectual property offices, industry, researchers and the general public. ^{96/} However, access to standardized traditional-knowledge documentation data as non-patent literature cannot be resolved unilaterally by patent-granting authorities. If the intellectual property system were to embrace traditional-knowledge holders and documentation initiatives, certain measures would have to be taken as a precondition for the traditional-knowledge documentation initiatives of indigenous and local communities to provide documentation data to national and regional patent offices. Most importantly, the wider application of traditional knowledge should include the approval and involvement of the indigenous and local communities that are holders of such knowledge, innovations and practices in conformity with Article 8(j). ^{97/}

95. As the reach of the intellectual property system in the global information society extends to new stakeholders, such as indigenous and local communities, there is also the need to take into account the broader picture in which their knowledge base, including in particular their traditional knowledge, constitutes an increasingly relevant body of prior art, the effective identification of which is of increasing importance for the functioning of the intellectual property system. Traditional-knowledge documentation data constitutes an important form of non-patent literature with specific characteristics. Some of those characteristics may necessitate specialized measures for traditional knowledge data to be adequately integrated and recognized as relevant non-patent literature. ^{98/}

^{96/} Ibid, para. 7.

^{97/} Ibid, para. 98.

^{98/} Ibid, para. 4 – see also para. 64.