

Summary, Reflections and Conclusions

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Nature, Scope and Objectives of the Fact-finding Missions: “Intellectual Property Needs and Expectations”

The fact-finding missions (FFMs) described in the preceding pages of this Report were mandated by WIPO’s Member States as part of WIPO’s program of activities for the 1998-1999 biennium. The missions were one element of several new WIPO activities designed to

“identify and explore the intellectual property needs and expectations of new beneficiaries, including the holders of indigenous knowledge and innovations, in order to promote the contribution of the intellectual property system to their social, cultural and economic development”.¹ The missions formed part of a *“study of current approaches to, and future possibilities for, the protection of intellectual property rights of holders of indigenous knowledge, innovations and culture. . .”*.²

It follows that this Report on the FFM reports specifically on the intellectual property (IP) dimensions of the needs and expectations of holders of traditional knowledge (TK). This Report is limited to an identification of those needs and expectations to which the IP system is able to respond. This does not diminish or obscure the other needs, expectations and concerns of traditional knowledge holders, be they indigenous peoples, or local and other communities and individuals. WIPO’s representatives were provided during the FFMs with information on needs, expectations and concerns in political, economic, and social domains. WIPO respects them and believes they should be addressed in the appropriate forums. However, if WIPO’s activities regarding TK are to remain tightly tied to their objectives and WIPO’s overall IP mandate (see Chapter 3 “Introduction” above), as they must, an IP focus is necessary.

This approach may be criticized as compartmentalist or reductionist. It may also be seen by some as too closely identified with the existing IP system. WIPO recognized these potential pitfalls, and thus sought to consult diversely and widely within Governmental, indigenous, local community, industry, academic and other non-Governmental circles. This is evidenced by the broad range of interlocutors consulted on the FFMs, and during the other traditional knowledge-related activities carried out by WIPO during 1998 and 1999 (see “Introduction” above). The names of the persons consulted on the FFMs are contained in the Interim Mission Reports attached as annex 4 to the Report.

As mentioned, the FFMs were only part of a range of TK-related activities carried out by WIPO in 1998 and 1999. Although this Report focuses on information compiled from the missions, WIPO’s other TK activities have influenced and informed the analysis of such information. Similarly, WIPO staff have read widely in the course of their work. The literature and materials consulted by them enriched their fact-finding and informed subsequent reflection on the results of the missions. Thus, some of the literature is referred to below. For a selected bibliography of the literature and other materials consulted by WIPO, see Annex 5 “Bibliography” below (final Report only).

Consistent with the “Intellectual Property Needs and Expectations” approach of the FFMs, each of the sections on the individual fact-finding missions in the chapter on “Identifying the Intellectual Property Needs and Expectations of TK Holders: Results of the 9 Fact-finding Missions” extracts the IP needs and expectations of those consulted. They are placed in text boxes to make them as visible as possible. Each section ends with a summary of the needs and expectations identified during the relevant mission. This chapter, in turn, summarizes, reflects upon and draws broad conclusions on what may be considered to be the main and most prevalent IP needs and expectations expressed by TK holders in all the regions visited during the FFMs. The needs and expectations of TK holders are set out in text boxes throughout the chapter and are listed in a text box at the end of the chapter.

What is “Traditional Knowledge”?

□ Use of appropriate terminology

An initial difficulty in this area is the use of appropriate terminology. It became evident in all the FFMs that parties consulted ascribe various meanings to the notions “traditional knowledge”, “traditional knowledge, innovations and culture”, and “traditional knowledge, innovations and practices”, the terms used by WIPO for purposes of the FFMs.

WIPO’s past work in this area began in 1978 and was initially limited to so-called “expressions of folklore”. In cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO), three meetings of experts convened by WIPO led to the adoption in 1982 of the “Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions” (“the Model Provisions”). Section 2 of the Model Provisions defines the term “expressions of folklore” as “productions consisting of characteristic elements of the traditional *artistic* heritage developed and maintained by a community or by individuals reflecting the traditional artistic expectations of such a community” (emphasis added). However, since adoption of the

Model Provisions in 1982,

international legal instruments in other fields have increasingly used terms such as “traditional knowledge, innovations and practices” (Article 8(j), Convention on Biological Diversity, 1992) or “indigenous knowledge, cultures and traditional practices” (Preamble, Draft UN Declaration on the Rights of Indigenous Peoples), which refer generally to a broader range of subject matter (for example, traditional agricultural, biodiversity-related and medicinal knowledge) than that which is covered by the term “expressions of folklore” in the Model Provisions.

Box 1

Intellectual Property Needs and Expectations

- The selection of an appropriate term or terms to describe the subject matter for which protection is sought.
- A clear definition or description of what is meant (and not meant) for IP purposes by the term or terms selected.

For many informants on the FFMs, the relationship between “traditional knowledge” and “folklore” was unclear. Discussions were also held on the distinction between “indigenous” and “traditional” knowledge, and some informants use other terms such as “indigenous” and/or “traditional technologies”. Lack of terminological clarity can confuse and obscure what is already, terminology aside, a complex enquiry. The FFMs demonstrated the need for terminological clarity. An appropriate term or terms describing the subject matter for which protection is sought should be selected. As importantly, from the IP perspective of WIPO, a clear definition or description of what is meant (and not meant) for IP purposes by the term or terms selected is desirable (see **Box 1**).

However, the context in which traditional knowledge is generated and preserved is important to its meaning. Therefore, any definition of traditional knowledge must reflect the internal cultural cognitive categories of the particular community and must necessarily be developed on a case by case basis. It would be incorrect to assume that all indigenous

communities are homogenous. Only the most general definitions can be formulated.³ In addition, as noted in the “Terminology” chapter, WIPO acknowledges the right of indigenous groups, local communities and other TK holders to decide what constitutes their own knowledge, innovation, cultures and practices, and the ways in which they should be defined.

WIPO’s use of the term “traditional knowledge”: For purposes of its work in this area, WIPO uses the term “traditional knowledge” to refer to tradition-based literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks, names and symbols; undisclosed information; and, all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields. The notion “tradition-based” refers to knowledge systems, creations, innovations and cultural expressions which: have generally been transmitted from generation to generation; are generally regarded as pertaining to a particular people or its territory; have generally been developed in a non-systematic way; and, are constantly evolving in response to a changing environment. Categories of traditional knowledge include: agricultural knowledge; scientific knowledge; technical knowledge; ecological knowledge; medicinal knowledge, including related medicines and remedies; biodiversity-related knowledge; “expressions of folklore” in the form of music, dance, song, handicrafts, designs, stories and artwork; elements of languages, such as names, geographical indications and symbols; and, movable cultural properties. Excluded from this description of TK would be items not resulting from intellectual activity in the industrial, scientific, literary or artistic fields, such as human remains, languages in general, and “heritage” in the broad sense. See further in chapter on “Terminology” above.

WIPO’s use of the terms “expressions of folklore” or “folklore”: In its work devoted specifically to folklore, WIPO uses the term “expressions of folklore”, or simply “folklore”, to refer more narrowly to the artistic aspects of “traditional knowledge”. WIPO is aware that the term “folklore” is believed to have a pejorative meaning by many commentators. As this is, however, the term that has been used at the international level for many years, WIPO has retained it for the present. The term “expressions of folklore” is more fully defined in the chapter on “Terminology” above. For WIPO’s activities on folklore, see further under “Protection of “Expressions of Folklore” below.

WIPO’s Use of Certain Terms

In summation, WIPO’s focus is on **“traditional knowledge”** as described above. From its perspective, **“expressions of folklore”** are a subset of the notion “traditional knowledge”. “Traditional knowledge” is, in turn, a subset of the broader concept of **“heritage”**.

□ The nature of traditional knowledge

After the FFMs and other related activities, we are able to make some preliminary

observations on the nature of traditional knowledge of particular relevance to an IP perspective:

- Traditional knowledge is not limited to any specific field of technology or the arts. Traditional knowledge systems in the fields of medicine and healing, biodiversity conservation, the environment and food and agriculture are well known. Other key components of traditional knowledge are the music, dance, and “*artisanat*” (i.e.

designs, textiles, plastic arts, crafts, etc.) of a people. Although there are creations which may be done purely to satisfy the aesthetic will of the artisan, many such creations are symbolic of a deeper order or belief system. When a traditional singer performs a song, the cadence, melody, and form all follow rules maintained for generations. Thus, a song's performance entertains and educates the current audience, but also unites the current population with the past.

- Understanding the interplay between practical knowledge, social history, art, and spiritual or religious beliefs provides a valuable foundation for developing an understanding of the people which hold this knowledge. While modern arts and sciences often place individual accomplishment over community development, traditional knowledge systems celebrate the community's cooperative effort.
- Intertwined within practical solutions, traditional knowledge often transmits the history, beliefs, aesthetics, ethics, and traditions of a particular people. For example, plants used for medicinal purposes also often have symbolic value for the community. Many sculptures, paintings, and crafts are created according to strict rituals and traditions because of their profound symbolic and/or religious meaning.
- Traditional knowledge is a multifaceted concept that encompasses several components. Traditional knowledge is, generally, not produced systematically, but in accordance with the individual or collective creators' responses to and interaction with their cultural environment. This may apply to all forms of knowledge, however, whether "traditional" or "modern". In addition, traditional knowledge, as representative of cultural values, is generally held collectively. This results from the fact that what can sometimes be perceived as an isolated piece of literature (a poem, for example) or an isolated invention (the use of a plant resource to heal wounds, for instance) is actually an element that integrates a vast and mostly coherent complex of beliefs and knowledge, control of which is not in the hands of individuals who use isolated pieces of knowledge, but is vested in the community or collective. Furthermore, most traditional knowledge is transmitted orally from generation to generation, and thus remains largely undocumented.
- A fundamentally important aspect of traditional knowledge is that it is "traditional" only to the extent that its creation and use are part of the cultural traditions of communities. "Traditional", therefore, does not necessarily mean that the knowledge is ancient or static. "Traditional" knowledge is being created every day, it is evolving as a response of individuals and communities to the challenges posed by their social environment:

*"Traditional knowledge is not merely learned by rote and handed down from one generation to the next. Inherently dynamic, it is subject to a continuous process of verification, adaptation and creation, altering its form and content in response to changing environmental and social circumstances."*⁴

Thus, in its use, traditional knowledge is also contemporary knowledge. This aspect is further justification for legal protection. It is not only desirable to develop a system that documents and preserves traditional knowledge created in the past and which may be on the brink of disappearance: it is also important to envisage a system that contributes to the promotion and dissemination of innovations which are based on

continuing use of tradition. One is therefore not talking only about freezing and preserving knowledge that exists now, but also about preserving what exists as an indispensable and powerful tool for fostering continued traditional innovation and creativity.

More generally, WIPO learned from the FFMs that TK is a rich and diverse source of creativity and innovation. The FFMs revealed that traditional knowledge systems are frameworks for continuing creativity and innovation in most fields of technology, ranging from traditional medicinal and agricultural practices to music, design, and the graphic and plastic arts. Stakeholders consulted during the FFMs consider TK to be a constantly renewed source of wealth, both as an economic asset and as cultural patrimony. This was the case in both developing and developed countries visited during the FFMs.

WIPO learned from the FFMs that the IP issues related to TK cut across the conventional branches of IP law, such as copyright and industrial property. In many cases, TK holders do not separate “artistic” from “useful” aspects of their intellectual creations and innovations; rather, both emanate from a single belief system which is expressed in daily life and ritual. (In fact, the “artistic” and “useful” dichotomy is not as stark in the IP system as some would allege. See below under “The artistic/useful dichotomy”). The FFMs also revealed that numerous indigenous and local communities have protocols for the protection of TK and TK-based innovations under customary law. (See further under “Informal IP regimes and customary law” below.)

In summary, the FFMs showed the richness and diversity of TK on a global scale, both in terms of its inherent creativity and as potential subject matter for IP protection.

Value and Importance of Protecting Traditional Knowledge

□ Why protect TK?

TK systems are increasingly accepted as an important source of useful information in the achievement of sustainable development. Studies of local communities provide evidence that the protection of TK can provide significant environmental benefits as well as possible commercial applications. Much of the world’s crop diversity is in the custody of farmers who follow age-old farming and land use practices that can conserve biodiversity and provide other local benefits, such as diet diversity, income generation, production stability, minimization of risk, reduced insect and disease incidence, efficient use of labor, intensification of production with limited resources and maximization of returns with low levels of technology.⁵

The protection of traditional knowledge is also important for social and cultural reasons, particularly perhaps in developing and least developed countries. TK can play a role in the economic and social organization of those countries, and recognizing the value of such knowledge may be a viable means of promoting a sense of national cohesion and identity. TK holders also stress the importance of TK validation and protection for individual and community dignity and respect.

On another level, developed, developing and least developed countries are engaged in implementing two international agreements - the Convention on Biological Diversity, 1992 (CBD) and the Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994

(the TRIPS Agreement) - that may affect the manner in which knowledge associated with the use of genetic resources (whether "traditional" or not) is protected and disseminated. As an outcome of the Uruguay Round negotiations, many developing and least developed countries have accepted the obligation under the TRIPS Agreement to establish high standards of IP protection as a means of promoting free trade. It has been argued that biodiversity, and the traditional knowledge associated with using it in a sustainable manner, are a comparative advantage of those countries that are biodiversity-rich, enabling them to participate more effectively in global markets and thus rise above current levels of poverty and deprivation. Thus, protection of traditional knowledge at the national and the international levels may be seen as a potentially powerful tool for advancing the integration of developing and least developed countries into the global economy.

Problems confronting TK holders

The FFM's showed that holders of traditional knowledge are faced with a variety of difficulties. Not all of them are addressable by IP, however:

- A serious problem is the reluctance of the younger generation to learn the "old ways." The rejection of traditions by the young and the encroachment of modern lifestyles often result in the decline of traditional knowledge and practices. Either through acculturation or diffusion, many traditional practices are lost. Thus, a primary need expressed by many TK holders is to *document and preserve* the knowledge that is held by elders and communities throughout the world. The absence of willing heirs to this knowledge has resulted in the precarious situation where the death of a TK holder can result in the demise of an entire tradition and knowledge system. (See further under "Documentation of TK" below.)
- Another difficulty facing holders of traditional knowledge is the lack of *respect* and appreciation for such knowledge. The true understanding of the value of TK is often overlooked within the modern reductionist approach to science. Unless information is developed under aseptic clinical conditions by scientific methods, it is sometimes viewed as "inferior." This is a corollary to the "NIH" syndrome in evidence in some corporate research and development departments to reject ideas or inventions that are "not invented here". For example, when a traditional healer provides a mixture of herbs to cure a malady, the healer may not describe the effects on the body as molecular interactions in the terms of modern biochemistry, but the healer bases his "prescription" upon generations of "clinical" trials undertaken by healers before him.
- At times, modern society has displayed a prejudice against TK since it does not conform to accepted methods of learning. Some of the vernacular references to TK carry negative connotations e.g., denigrating traditional medicine as "primitive" and its practitioners as "quacks", or even "witch doctors".
- Yet another problem confronting holders of traditional knowledge is the commercial exploitation of their knowledge by others, which raises the question of *legal protection* of TK. Cases involving artistic designs (such as the "Morning Star Pole" in Australia) and natural products (such as oil from the neem tree in large parts of Asia, Africa and Latin America) all bear evidence to the value of traditional

knowledge in the modern global economy. Unfortunately, many of the commercial interactions between traditional communities and private corporations can result in agreements from which legal uncertainty and consequent imperfection or loss of rights arises for both parties. A lack of experience with existing formal systems, economic dependency, lack of a unified voice, and, in many cases, a lack of clear national policy concerning the utilization of traditional knowledge, results in traditional communities being placed at a decided disadvantage. On the other hand, the lack of clear rules protecting traditional knowledge creates risks for business interests, which prefer closing deals under well-established, reliable and enforceable rules.

As mentioned above, not all of these problems are addressable by the IP system. The need to be clear on the nature of IP and of its role in TK protection was evident, and is the subject of the next section.

Nature of IP and Its Role in TK Protection

The FFM's illuminated the need to manage expectations among TK holders and others regarding the role of IP in TK protection. WIPO's new activities in this field may have created unrealistic expectations. The IP system's contribution to the protection of TK is of necessity limited to TK that is or may become protectable IP subject matter. Once again, it is emphasized that IP is a broad concept - see "Introduction to Intellectual Property", the chapter on "Terminology" and the discussion below. In this regard, one can distinguish between knowledge systems and formations that are *per se* and regardless of their "traditionality" or otherwise, not subject matter protectable under IP, on the one hand, and traditional knowledge systems and formations that have potential protection through IP but may not meet the standards for IP protection, on the other.

□ *Per se* excluded subject matter

It is clear that certain forms of what some FFM informants consider to be "traditional knowledge" fall outside the scope of potential IP subject matter. In the section on the "Introduction to Intellectual Property" above it was explained that "intellectual property" refers to property rights in creations of the mind, such as inventions, industrial designs, literary and artistic works, symbols, and names and images. The notion is a broad one, and is not limited to the existing categories of IP. Thus, "intellectual property" can include productions and matter not covered by the existing branches of IP, provided, however, that they result "from intellectual activity in the industrial, scientific, literary or artistic fields."⁶

It follows that certain items of what some consider to be "traditional knowledge" can not be protectable under IP, such as spiritual beliefs, dispute-settlement processes and methods of governance, languages, human remains, and biological and genetic resources in their natural state, to name a few examples. These are not protectable IP subject matter, whether "traditional" or not. Nor is knowledge or information *per se* generally protectable under IP, unless it is in the form of a "trade secret".

❑ **TK that may not qualify for IP protection**

While many forms of TK are or could be protected under the IP system, existing IP mechanisms are not able to protect fully all forms of TK. This is because existing IP mechanisms cannot fully respond to the characteristics of certain forms of traditional knowledge, namely, their holistic nature, collective origination and oral transmission and preservation. However, current and future possibilities for TK protection by IP require further testing and exploration. (See further under “Use of the IP system” below.)

❑ **Adjustment of expectations**

There is thus a need to provide TK holders and others with information on the role and nature of IP protection and those aspects of TK that are potential subject matter for IP protection so that any unrealistic expectations may be adjusted. See **Box 2**.

Box 2

Intellectual Property Needs and Expectations

- The adjustment of expectations through effective awareness-raising as to the role and nature of IP protection in relation to TK

No Protection for TK

❑ **Arguments against any form of TK protection**

A few parties consulted on the FFM's opposed any form of protection or regulation of TK, whether by IP or any other system. This view was based upon the notion that traditional knowledge is by its nature in the public domain, that it should not be the subject of exclusive rights or “commodified”, and that attempts to regulate its use and transmission would have far-reaching philosophical and practical implications for information ethics, the public domain and the creation, management and free flow of information. Critics point also to the difficulties inherent in attempting to police and enforce new controls on cultural property and TK.⁷

❑ **Rejection of IP protection for TK**

Some informants consulted oppose the use of the IP system to protect TK. Many of them seem opposed to the IP system *per se*. Such views are relatively well represented in academic, non-governmental and other literature, including certain indigenous peoples’ statements and declarations.⁸ These views may be summarized briefly as follows: the IP system, as a product of the European industrial and intellectual tradition, fails indigenous people and other TK holders at various levels. In the **operational** context, the cost of filing and registration of IPRs is prohibitive, as are the costs of enforcement and infringement proceedings. There are also clear **conceptual** problems: “*IPR law provides indigenous peoples with few legal courses of action to assert ownership of knowledge because the law simply cannot accommodate complex non-Western systems of ownership, tenure and access.*”⁹ It is argued that the IP system negatively excludes TK because of its trans-generational and communal nature.¹⁰ Apart from these immediate operational and conceptual problems, FFM informants also pointed to more subtle dysfunctions. The IP system is seen by some as a modern reincarnation of European colonialism. Informants referred to what they described as deep-running divergences between “Western” and “indigenous” knowledge

systems, particularly as to their respective conceptions of the origins, management and ownership of information and knowledge. Several informants believe that the notions of “property rights” and “ownership” are foreign to indigenous and local communities. Claims were also made that indigenous and local communities are being subjected to exploitative and increasing “biopiracy” by private sector companies from particularly the pharmaceutical, seed and agrochemical industries. (“Biopiracy” usually denotes the unauthorized extraction and utilization of TK and/or associated biological and genetic resources and/or the acquisition of IPRs over resultant inventions that derive from such knowledge or resources without provision for benefit-sharing with the individuals or community that provided the knowledge or resources.¹¹) Examples were cited of patents granted over genetic resources and TK-based innovations that, according to the informants, push at the boundaries of “novelty” and “inventiveness”. Indeed, several such patents have been withdrawn after challenges that the patents had been granted over properties well known in systems of TK of indigenous and local communities, such as the well known turmeric and recent Ayahuasca cases.¹² These cases illustrate the difficulty that patent examination offices in industrialized countries have in recognizing prior art that has been created and held by traditional knowledge systems.¹³ Thus, the **negative** exclusionary effect of the IP system is compounded by a **positive** exclusionary effect, where IP rights are acquired by non-TK holders to the exclusion of their pre-existing rights.¹⁴ Certain of these views expressed by informants were contextualized within broader criticisms of the intellectual property system as serving only the interests of industrialized countries, and not those of developing countries.

Box 3

Intellectual Property Needs and Expectations

- A *sui generis* system of “community” or “collective” rights to protect TK
- To prevent the unauthorized acquisition of IPRs (particularly in the case of patents) over TK by documenting and publishing TK as searchable prior art
- An analysis of how prior art is established for purposes of patent examinations in the context of TK

In short, such informants believe that the IP system is inherently inappropriate and dysfunctional in relation to the needs and expectations of TK holders. They argue for a “*sui generis*” system, or systems of “community”, “collective” or “indigenous” rights.

To counteract the positive exclusionary effect of the acquisition of IPRs over TK by non-TK holders, particularly patents, they expressed needs for:

- the documentation and wide publication of TK, where desired by the relevant TK holders, so as to destroy novelty for patent purposes, thus rendering the TK non-patentable by TK holders and non-TK holders alike; and

- an analysis of the methods used by patent examination offices for gaining access to and reviewing prior art.¹⁵

See **Box 3**.

□ **Comments**

Certain of these criticisms may be justified. There are indeed TK systems and formations that the IP system cannot accommodate. However, one should not exaggerate the case against IPRs. There are a growing number of instances where individuals and communities are testing and using the existing patent, trademark, design or copyright systems to protect their knowledge and culture with some success (see further under “Use of the IP System to protect TK” below). Some of the criticism leveled at the IP system appears generalized and not founded upon a strong technical knowledge of IP law and practice and of the specifics of concrete uses of TK.¹⁶ Imprecise use of technical language and IP concepts also obfuscates the issues, rendering balanced and factual assessments of the true role of IP in specific cases more difficult to make.¹⁷

It is helpful, too, to draw careful distinctions between the IP system and how it is meant to work, on the one hand, and particular cases in which the system may have failed, on the other. Cases in which patents should not have been granted, for instance, are examples of bad patents, not necessarily a bad patent system.

Box 4

Intellectual Property Needs and Expectations

- Facilitation of dialogue and contact between TK holders, the private sector, Governments, NGOs and other stakeholders to assist in development of modalities for cooperation between them, at community, national, regional and international levels.

decentralized and disintegrated nature. Related issues appear and are dealt with in diverse yet overlapping fora, in which the issues are subjected to differing policy considerations, moral stances and analytical tools. Yet, amid increasing conflicts over rights and responsibilities over traditional knowledge resources, decision - makers are required to develop coherent and integrated policy responses.

It is incumbent upon the IP community to contribute technical IP expertise and perspectives to debates on these

The growing importance attached to TK, coupled with concerns over the loss of cultural and biological diversity, has generated a maze of complex and rapidly-evolving public policy, ethical and legal questions in a multiplicity of national, regional and international fora. These questions manifest themselves in *inter alia* human rights, cultural, trade, food and agriculture, indigenous peoples’ rights, labor standards, sustainable development, land and environment/biological diversity forums. Characteristic of this scenario is its

Box 5

Intellectual Property Needs and Expectations

- Greater awareness-raising on the IP system, particularly among sectors of society and communities unfamiliar with it, such as indigenous and local communities and Governmental offices not directly involved in IP law and administration.
- Greater understanding by the IP community of the perspectives, expectations and needs of TK holders.

issues, particularly those taking place in non-IP forums. Discussions and interviews conducted on the FFM highlighted the need for greater awareness-raising on the IP system, particularly among sectors of society and communities unfamiliar with it, such as indigenous and local communities and Governmental offices not directly involved in IP law and administration. Greater awareness-raising may assist to dispel certain misconceptions concerning IP and result in more technical, finely-calibrated and nuanced assessments of the TK/IP nexus. There is a need for strengthened dialogue and contact between TK holders, the private sector, Governments, NGOs and other stakeholders to assist in developing modalities for cooperation between them, at community, national, regional and international levels. See **Box 4**. As important, is the need for the IP community to better understand and appreciate the perspectives, expectations and needs of TK holders. See **Box 5**.

Enhanced participation by the national and regional IP offices and the IP community at large in TK-related processes in which IP issues are raised (such as those concerned with biological diversity, the environment, food and agriculture, and the rights of indigenous peoples) is also desirable. See **Box 6**. See also under “Access to and Benefit-sharing in Genetic and Biological Resources” below.

It is not intended to attempt to respond to all of the views expressed. However, we wish to respond to what appear to be a few commonly held misconceptions:

Box 6

Intellectual Property Needs and Expectations

- Enhanced participation by the national and regional IP offices and the IP community at large in TK-related processes in which IP issues are raised

“TK is Collective/IP is Individual”

It is widely stated that IPRs are unsuitable for TK protection because they protect new knowledge that is created by individuals and do not recognize collective rights. However, the FFM and other literature indicate that the reality is more complicated than these generalizations suggest. Not all TK is collective. As Gupta and others point out, while it is true that many indigenous and local community cultures generate and transmit knowledge from generation to generation

collectively, in some cases individuals can distinguish themselves and are recognized as informal creators or inventors separate from the community.¹⁸ Similarly, not all IPRs are individualistic. Increasingly, invention and creation take place in firms where groups of persons may be cited as co-inventors or co-authors, concepts recognized by the IP system. Trademark law recognizes “collective marks” and geographical indications also protect the interests of a collective mark. Additionally, although collective management does not mean collective authorship and ownership, the collective management of IPRs is very familiar to the music industry, where copyright in musical works has been successfully collectively managed for many years (see under “Collective Management” in the

Box 7

Intellectual Property Needs and Expectations

- Study of relationship between collectivity of TK and IPRs, more particularly testing of options for the collective acquisition, management and enforcement of IPRs by TK holders’ associations, including the applicability of collective management of IPRs to TK.

section on “Introduction to Intellectual Property” above).

However, the collectivity of creation and ownership of TK poses challenges for the IP system and the testing of options for the collective acquisition, management and enforcement of IPRs by TK holders’ associations is desirable. Further study could include the possible applicability of collective management of IPRs to TK. See **Box 7**.

Informal IP regimes and Customary Law

Several informants believe that concepts such as “ownership” and “property rights” are foreign to indigenous and traditional communities, and inappropriate for delineating rights and duties with respect to TK. However, FFM findings and anthropological literature reveal that such concepts – or at least close equivalents to them – also exist in most if not all traditional societies.¹⁹ According to the Canadian indigenous peoples’ organization, the Four Directions Council:

*Indigenous peoples possess their own locally-specific systems of jurisprudence with respect to the classification of different types of knowledge, proper procedures for acquiring and sharing knowledge, and the rights and responsibilities which attach to possessing knowledge, all of which are embedded uniquely in each culture and its languages.*²⁰

Traditional proprietary systems are referred to in many indigenous statements and declarations, such as the Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples, 1992, and the Julayinbul Statement on Indigenous Intellectual Property Rights, 1993. The need for the recognition of customary law systems is also included in ILO Convention 169²¹, the Draft United Nations Declaration on the Rights of Indigenous Peoples, 1994²² and the Principles and Guidelines for the Protection of the Heritage of Indigenous People²³, elaborated by the Special Rapporteur of the United Nations Sub-Commission on Prevention of Discrimination and Protection of Minorities.

It may therefore not be correct to suppose that patents, copyrights, trade secrets and trademarks are entirely alien or incompatible concepts to all indigenous and traditional rural communities.²⁴ Proprietary systems do exist in many traditional societies, but, equally, any assumption that there is a generic form of collective/community IPRs ignores the intricacies and sheer diversity of indigenous and traditional proprietary systems.²⁵

As Dutfield points out, to deny that indigenous and local communities recognize the concepts of “ownership” and “property rights” weakens the positions of those who argue for the protection of TK. If TK is not even considered by the holders themselves to be anybody’s property, then it may reasonably be assumed that TK is part of the public domain and that nobody’s rights are being infringed by publishing or commercially exploiting it. These advocates of TK protection are then compelled to resort to moral arguments that TK should enjoy a privileged legal status *vis a vis* other public domain “non-traditional” knowledge. Separate IP rules for traditional and non-traditional knowledge would be difficult to sustain. Referring to suggestions that indigenous populations should be accommodated by collapsing the idea/expression distinction or by abandoning the time horizons on copyrighted material, Brown writes:

*“Expectations that such radical extensions of intellectual property laws could be restricted to indigenous populations through the establishment of regimes of special rights are extremely naïve.”*²⁶ It is more than naiveté, however, since international treaties dealing with IP typically include a national treatment obligation. Thus, any specialized regime for the protection of TK would have to extend beyond local indigenous populations to all foreign nationals with which the country in question has treaty relations.

In fact, traditional societies often have highly-developed, complex and effective customary IP systems. These systems have, until now, existed in virtual independence of the formal IP system. The point, therefore, is not that TK holders do not recognize intellectual property concepts, but rather that the formal IP system is a *type* of intellectual property system with which they are not familiar.²⁷

Box 8

Intellectual Property Needs and Expectations

- Study of customary law and informal IP regimes in local and traditional communities, including conclusions relevant for the formal IP system

Many informants recognized the need for members of traditional communities and of the formal IP community to learn about each other’s systems, and that the interfaces, similarities and differences between customary and modern legal systems require understanding and management. Several informants advocated protection of TK by the application of customary intellectual property law on its own terms.²⁸ The FFMs demonstrated a clear need to study the relationship between

customary protection of TK and the IP system, and particularly the implications of customary IP regimes for IP. See **Box 8**.

The “Artistic/Useful” Dichotomy

As pointed out above, it is often stated that the IP system distinguishes clearly between “artistic” and “useful” articles, and can thus not accommodate creations and innovations that are both artistic and useful, such as many tradition-based innovations and creations. However, the artistic/useful dichotomy is not as stark in the IP system as some would allege. For example, industrial design law protects the original ornamental and non-functional features of an industrial article or product. The design of an article or product which is dictated solely by its function is thus not protectable as a design. However, increasingly, under certain theories of design, form follows function, so that in some cases a design’s form cannot be easily distinguished from its function. Similarly, copyright protection can be obtained for articles that might also qualify for industrial designs protection, such as items of applied art. Copyright is intended to protect aesthetic creations, but in the case of applied art and other useful artistic works, such as works of architecture, for example, the artistic/useful distinction is less clear.

Transaction Costs

One of the criticisms against the IP system encountered during the FFMs is the cost of acquisition, maintenance and enforcement of IPRs. Such transaction costs, it is argued, bar access to the IP system to potential users without the necessary financial resources. However, costs associated with use of the IP system do not make the system inherently unjust, particularly if ways can be found to lower costs or to assist indigent persons and communities to use the system if they wish. Moreover, this presupposes that the more expensive rights to establish through registration schemes (such as patents and trademarks) will be the more preferred than rights that do not depend upon registration (such as copyright and protection against unfair competition).

The Scope of Patents

It is often argued that patents derived from knowledge acquired from traditional communities prevent members of these communities from continuing to use their knowledge. It is important to understand that a patent covers only the specific invention described and nothing more. Hence, for example, a patent on an invention derived from or based upon TK does not prevent the continued use of the TK by the relevant community. In addition, in a number of countries, the “prior use” exception allows people already engaged in exploiting an invention to continue doing so after the invention becomes subject to a patent held by another party. Similarly, it is argued that industrial patent holders merely “tinkered” with a natural substance or traditional practice making only minor changes. Once again, a patent only covers the invention described. As Downes observes, if the invention is indeed minor and not worth very much, then the patent covers only a minor invention and is not worth very much. If the invention is a major advance, the patent is more valuable.²⁹

Once again, greater awareness-raising on the IP system, particularly among sectors of society and communities unfamiliar with the IP system, such as indigenous and local communities and Governmental offices not directly involved in IP law and administration, may assist to dispel misconceptions on the IP system and result in more technical, nuanced and finely-calibrated assessments of the role of IP in TK protection (see **Box 4** above).

Use of The IP System to Protect TK

Despite criticism of the IP system and of its usefulness in the TK domain from certain informants, many others expressed interest in exploring further the actual and potential role of the IP system in TK protection. There are many examples of TK that are or could be protected by the existing IP system. Several informants also suggested certain changes to IP law to improve its functionality in TK protection. This cluster of views may be described as “**legal questions**”.

Concerns were also expressed that TK holders have or would have difficulty in availing themselves of the benefits of the IP system because of the costs associated with the acquisition, maintenance and enforcement of IPRs (at least those, as far as acquisition costs are concerned, that depend upon registration.) It was added that indigenous peoples, local and rural communities and other TK holders are also hindered by having, generally, little

knowledge of or practical experience with the formal IP system. These views may be termed “operational questions”.

□ **Use of the IP system: legal questions**

Many informants expressed the view that, in the shorter term at least, attention be focussed on the extent to which existing IP tools protect TK. Testing the present categories of IP would involve working directly with TK holders, including indigenous peoples and local communities, to raise awareness of the basics of the IP system, undertake a practical and technical examination of the application of the IP system to various forms of TK and provide training on the IP system. The idea would be to develop and experiment with existing IP tools to protect TK in what was described as a “bottom up” approach. Informing this suggestion was also a view that multilateral consensus on international norms is unlikely in the short term, and that after workable solutions have been tested and proven at the local and national levels, the evolution of an agreed international framework is more likely.

Box 9

Intellectual Property Needs and Expectations

In the shorter term:

- Testing the applicability and use of existing IP tools for TK protection, through practical and technical community-level pilot projects and case studies
- Provision of technical information and training to TK holders and Government officials on possible options under the existing IP categories for TK protection
- Provision of IP information, assistance and legal advice to Governmental authorities in respect of regional, sub-regional and national legislative and other initiatives to protect TK

The FFMs showed clear needs for greater awareness-raising on the IP system among TK holders (see **Box 4** above), testing the applicability and use of existing IP tools for TK protection and for the provision of technical information and training to TK holders and Government officials alike on possible options under the IP system for TK protection (see **Box 9**).

Similarly, many Government officials indicated interest in developing legislative and other tools to protect TK, and expressed the need for IP advice and assistance in this regard (see **Box 9**). (See also under “Access to and Benefit-sharing in Genetic Resources” below.)

Informants are interested in exploring greater use of almost all the existing branches of the IP system, particularly trademarks, geographical indications, patents, industrial designs, copyright, and unfair competition, including trade secrets. In addition, informants on the FFMs referred to certain specific IP tools, concepts or options being tested, used or studied by TK holders, such as :

- Trademarks
 - The registration of collective and certification trade marks to establish a sign under which goods emanating from a particular group or collective, or manufactured in accordance with particular methods or standards, can be sold;
 - The prevention of the unauthorized registration of traditional names, symbols and insignia as “culturally offensive” and, therefore, as being contrary to public order or morality under trademarks legislation.

- Geographical indications
 - The registration of geographical indications, as contemplated internationally in the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration, 1979 and the Protection under the Madrid Agreement for the Repression of False and Deceptive Indications of Source, 1891.

- Patents
 - Inclusion in patent applications, which claim TK and biological resources-based inventions, of an indication that the TK and/or biological material has been obtained with the prior informed consent (PIC) of the country of origin, and acknowledgment of all relevant public domain and community based knowledge;
 - A grace period protecting a TK holder against the consequences of disclosure in the context of documentation if that disclosure was made within a specified period before the filing of the application.

- Copyright and Related Rights
 - The copyright protection of oral works;
 - The protection of TK documentation through the original and non-original database protection;
 - Protecting the “moral rights” of TK holders using the moral rights concept in copyright;
 - Protects TK through the protection of the rights of performers, included internationally in the International Convention for the Protection of Performers, producers of Phonograms and Broadcasting Organizations, 1961, the Rome Convention and, more recently, the TRIPs Agreement, 1994³⁰, and the WIPO Performances and Phonograms Treaty, 1996.
 - The *domain public payant* system, under which royalties continue to be paid for the use of literary and musical works in the public domain; and,
 - The *droite de suite*, a resale royalty under which an artist receives a share of the price paid for his or her original work from all sales subsequent to the first sale of the work by the artist.

- Unfair Competition
 - The law of “passing off”;

- Trade secrets protection.

In the longer term, however, the development of new IP tools to protect forms of TK not covered by existing IP tools was articulated by several informants. New IP tools could be accommodated within the broad conception of “intellectual property” in the WIPO Convention³¹ as previously referred to.

The need for an international framework for TK protection was stressed. Particularly with current advances in information and biological technologies, purely national systems are of limited value. A multilateral framework, under which TK can be protected in all signatory countries in the same way as any other IP, is desirable, FFM informants advised. However, the need for solutions to be first developed and tested nationally and regionally was emphasized. The WIPO/UNESCO Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions of 1982 (see section on “Introduction to Intellectual Property” above) were mentioned as a possible foundational basis for future standard setting at the international level. See **Box 10**.

□ **Use of the IP system: operational questions**

Concerns as to the ability of indigenous and local communities to use the IP system effectively were expressed several times during the FFMs. Informants pointed to the unfamiliarity among TK holders with the IP system and the costs of acquiring, maintaining and enforcing IPRs. Such operational questions are perhaps as important, if not more so than, the legal questions discussed above. They are also a strand of larger concerns with “power” – the financial and political power to use and take advantage of IP, to influence the progressive development of IP law and policy and to challenge IP claims made by others. As stated during the WIPO Roundtable on Intellectual Property and Traditional Knowledge held from November 1 to 2, 1999, “. . . if TK is inadequately protected and the innovations of firms and “modern knowledge” is protected, it is not because of

Box 10

Intellectual Property Needs and Expectations

In the longer term:

- Development of new IP tools to protect TK not protected by existing IP tools.
- Elaboration of an international framework for TK protection, using *inter alia* the 1982 Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions as a possible foundation.

Box 11

Intellectual Property Needs and Expectations

- Facilitating access to the IP system, to enable TK holders to use and enforce rights under the IP system
- Provision of information, assistance and advice with respect to the enforcement of TK protection

incompatibility of the systems (TK and IPRs) but because of a difference in power.”³²

These broader questions fall beyond the scope of IP, but the more specific need to facilitate access to the IP system to enable TK holders to use it more effectively, and to provide information and assistance to TK holders to enforce their rights were keenly felt by WIPO during all the FFMs. See **Box 11**. These

needs could be met, for example, by wider dissemination of IP information to indigenous and local communities, public information activities aimed specifically at TK holders, and other activities carried out by national IP offices and other agencies designed to demystify IP and to facilitate access to the national IP offices and the IP system. For example, certain national patent and trademark offices offer reduced application fees to independent inventors and small and medium-sized enterprises. If such schemes do not already apply to members of indigenous and local communities, the possibility of extending them to such persons and communities could be explored by national offices.

Documentation

The need for the documentation of TK was repeated often during the FFMs. Calls for documentation were prompted by various objectives, including to:

- identify the TK that requires protection;
- preserve TK for future generations;
- make TK available for research and educational purposes;
- prevent the acquisition of IPRs over TK. See under “Rejection of IP protection for TK” above.

Legal and technical assistance with documentation projects was requested many times. From an IP perspective, a need was perceived by WIPO for advice and information on the IP aspects and implications of documentation. More particularly, there is a need for information and training on considering IPR implications before documenting, managing the process of documentation from an IP perspective, securing and managing IPRs after documentation, and the standardization of TK documentation.

Standardization should further the states’ IPR-related goals. It should also serve other communities, such as those involved in anthropology or medical research. Information and training could inform persons and institutions engaged in TK documentation about subjects such as: IP implications of existing documentation; minimum documentation required for exercise and enforcement of certain IPRs; classifying TK according to appropriate IP tools during the documentation process; use of existing IP documentation standards during TK documentation; and, the IP aspects of managing documentation data. Taking into account the prevailing documentation standards, information and training of this nature could help people involved in ongoing documentation projects to take the IP dimensions of their work into account. See **Box 12**.

Box 12

Intellectual Property Needs and Expectations

- The provision of legal/technical assistance with TK documentation, including information and advice on the IP implications of TK documentation

Access to and Benefit-Sharing in Genetic and Biological Resources

Within the context of concerns for the state of the environment and particularly the depletion of the earth’s biological diversity, and in the light of the obligations of the Convention on Biological Diversity, 1992 (the CBD), several persons consulted pointed to the links between the regulation of access to and benefit-sharing in genetic and biological resources and the protection of associated TK. Specific references were made *inter alia* to

Article 8(j) of the CBD. Although the FFM s were not directly concerned with access to and benefit-sharing in genetic and biological resources, much TK is associated with the custodianship and use of genetic and biological resources. Thus, all the FFM s touched upon questions related to access to and benefit-sharing in genetic and biological resources.

Many Governmental and non-Governmental processes and activities regarding the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising from the use of genetic resources are underway. Many of these processes and activities, including the elaboration of draft access to and benefit-sharing in genetic and biological resources agreements, policies, programs, “best practices”, guidelines and protocols, are relevant for TK protection. Several countries and regional organizations have enacted or are considering draft access to and benefit-sharing in genetic and biological resources legislation or regulations which also protect TK.³³

Most of these initiatives are taking place under the auspices of Ministries, Government Departments and other agencies responsible for or involved in implementing the CBD. As mentioned above, there is a need for:

- dialogue and contact between TK holders, the private sector, Governments, NGOs and other stakeholders to assist in development of modalities for cooperation between them, at community, national, regional and international levels (see **Box 5** above); and,
- enhanced participation by the national and regional IP offices and the IP community at large in TK-related processes in which IP issues are raised (see **Box 6** above).

Persons involved in developing access to and benefit-sharing in genetic and biological resources agreements, policies, programs, “best practices”, guidelines, protocols, legislation or regulations expressed the need to receive IP advice and assistance in their work. See **Box 13**. However, specific advice having general application on how IP rights should be dealt with in an access and benefit-sharing arrangement to ensure that benefit-sharing is “fair and equitable” in the sense of the CBD is perhaps not possible. The diversity of legal, economic, social, cultural and political situations between and within States prevents the elaboration of prescriptive blueprints in this regard. It is likely that only general advice and information on the IP aspects of access to and benefit-sharing in genetic and biological resources will be possible.

Box 13

Intellectual Property Needs and Expectations

- IP advice and assistance in respect of legislation, regulations, guidelines, protocols, agreements (including model terms), policies and processes on access to and benefit-sharing in genetic resources

Contract

FFM informants suggested that models for contractual arrangements - in the form of licenses, material transfer agreements, access agreements, information transfer agreements and the like - offer practical tools for the protection of access to and unauthorized use of TK. However, as the relative bargaining strengths of local communities and outside parties, such as commercial entities, tend to vary widely,

strategies are needed to support local communities in the field of contract. This was attested to by many NGOs and other development agencies many of whom indicated their willingness to assist in this regard. Suggestions include the following:

- assistance and training for TK holders in the negotiation, drafting, implementation, and enforcement of contracts;
- the development and testing, with the close involvement of local communities, of “best contractual practices” and guidelines and model clauses for contracts.

See **Box 14**.

Protection of “Expressions of Folklore”

As mentioned above, several FFM informants ascribed various meanings to terms such as “traditional knowledge” and “folklore”. The need for terminological clarity has already been identified (see **Box 1** above). In addition to its program on traditional knowledge, the WIPO program for 1998-99 also included a program of activities on the “Protection of Expressions of Folklore”.

Four regional consultations were organized by WIPO in cooperation with UNESCO, for African countries in Pretoria, South Africa (March 1999), for countries of Asia and the Pacific region in Hanoi, Viet Nam (April 1999); for Arab countries in Tunis, Tunisia (May 1999); and for countries in Latin America and the Caribbean in Quito, Ecuador (June 1999). In total 63 governments of WIPO Member States, 11 intergovernmental organizations, and five non-governmental organizations were represented at the four consultation meetings. Nineteen expert speakers on folklore and IP from the respective regions facilitated the consultation sessions.

Each of the four regional consultations adopted Resolutions or Recommendations which include proposals for future work addressed to WIPO and UNESCO, on the one hand, and to national governments of the respective regions on the other. The Recommendations and Resolutions of the four regional consultations are contained in Annex 5.

Box 14

Intellectual Property Needs and Expectations

- Assistance and training for TK holders in the negotiation, drafting, implementation, and enforcement of contracts
- The development and testing, with the close involvement of local communities, of “best contractual practices”, guidelines and model clauses for contracts

Box 15

Intellectual Property Needs and Expectations

- Awareness-raising on the potential commercial value of TK and on options for TK holders in this regard, including awareness-raising at schools, educational materials and through Distance Learning programs

Generally, there was consensus that the WIPO workplan for folklore protection should be expanded significantly to include activities at the national, regional, and international levels. The Recommendations and Resolutions unanimously specify four

activities for further work in this field: (i) the provision of legal and technical assistance on the protection of folklore; (ii) specialized training in identification, documentation (including documentation standards), conservation and dissemination of folklore; (iii) the provision of necessary financial resources to relevant national and regional centers and institutions, and (iv) the development of an effective international regime for the protection of expressions of folklore.

Economic Valuation of TK

It was apparent to WIPO staff on the FFMs that in many cases members of indigenous and local communities are unaware of the potential commercial value of their TK. While also ensuring expectations are not unrealistically high (see **Box 2** above), a need was perceived for raising awareness among TK holders as to the potential economic value of their TK and why outside parties may be interested in obtaining access to it. See **Box 15**.

However, little data exists on the economic valuation of TK, particularly of its actual contribution to the development of new products and processes. The development of tools for the economic valuation of TK was expressed. Such an exercise goes beyond IP, however, and would require the involvement of experts from several disciplines. See **Box 16**.

Conclusions

The potential role of IP rights in the protection of TK is an emerging field which requires thorough exploration and an active search for solutions. Although there are at present no clear, specific international IP standards for protecting such knowledge, there are a growing number of instances where individuals and organizations are resorting to existing patent, trademark or copyright systems to protect their knowledge and cultural expressions. These efforts have met with mixed success, but greater appreciation and respect for TK is drawing international attention to these issues.

Further exploration of TK protection through IP must be based upon an understanding of the context within which TK formations are generated, preserved and used, and the cultural and ethical values of their holders. Above all, future work must be led by needs and expectations concerning TK protection. Hence, the FFMs and this Report, the purpose of which is to identify and report on IP needs and expectations for TK protection. The main IP needs and expectations of TK holders are identified and reflected upon in this chapter, and are set out in summary form in the following text box:

Box 16

Intellectual Property Needs and Expectations

- The development of tools for the economic valuation of TK

Intellectual Property Needs and Expectations of TK Holders

These are the needs and expectations of TK holders as identified by WIPO during the FFMs. They are not all addressable by WIPO. WIPO's future work programs will therefore not necessarily include activities responding to all of these needs and expectations.

- The selection of an appropriate term or terms to describe the subject matter for which protection is sought.
- A clear definition or description of what is meant (and not meant) for IP purposes by the term or terms selected.
- The adjustment of expectations through effective awareness-raising as to the role and nature of IP protection in relation to TK.
- The prevention of the unauthorized acquisition of IPRs (particularly patents) over TK by documenting and publishing TK as searchable prior art, where so desired by the relevant TK holders.
- An analysis of how prior art is established for purposes of patent examinations in the context of TK.
- Greater awareness-raising on the IP system, particularly among sectors of society and communities unfamiliar with it, such as indigenous and local communities and Governmental offices not directly involved in IP law and administration.
- Greater understanding by the IP community of the perspectives, expectations and needs of TK holders.
- Facilitation of dialogue and contact between TK holders, the private sector, Governments, NGOs and other stakeholders to assist in development of modalities for cooperation between them, at community, national, regional and international levels.
- Enhanced participation by the national and regional IP offices and the IP community at large in TK-related processes in which IP issues are raised.
- Study of the relationship between collectivity of TK and IPRs, more particularly testing of options for the collective acquisition, management and enforcement of IPRs by TK holders' associations, including the applicability of collective management of IPRs to TK.
- Study of customary law and informal IP regimes in local and traditional communities, including conclusions relevant for the formal IP system.
- In the shorter term, testing the applicability and use of existing IP tools for TK protection, through practical and technical community-level pilot projects and case studies; and, provision of technical information and training to TK holders and Government officials on possible options under the existing categories of IP for TK protection

Intellectual Property Needs and Expectations of TK Holders (cont'd)

- In the longer term, the possible development of new IP tools to protect TK not protected by existing IP tools, the elaboration of an international framework for TK protection, using *inter alia* the WIPO-UNESCO Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions, 1982 as a possible foundation, and the development of a *sui generis* system of “community” or “collective” rights to protect TK.
- Facilitating access to the IP system, to enable TK holders to use and enforce rights under the IP system.
- The provision of information, assistance and advice with respect to the enforcement of TK protection.
- The provision of legal/technical assistance with TK documentation, including information and advice on the IP implications of TK documentation.
- The provision of IP advice and assistance in respect of legislation, regulations, guidelines, protocols, agreements (including model terms), policies and processes on access to and benefit-sharing in genetic resources.
- Assistance and training for TK holders in the negotiation, drafting, implementation, and enforcement of contracts.
- The development and testing, with the close involvement of indigenous peoples and local communities, of “best contractual practices”, guidelines and model clauses for contracts.
- Awareness-raising on the potential commercial value of TK and the development of tools for the economic valuation of TK.

It is evident that some of the needs and expectations conflict, or reflect competing policy objectives. We have not attempted to mediate the needs or “resolve” conflicts, but rather to report as fully as possible on the information received from FFM informants. WIPO recognizes that it cannot address all these needs, and a collaborative effort by other relevant organizations and processes would be desirable. The needs as identified pose challenges for the entire IP community – national and regional IP offices, collective management societies, the private sector, NGOs, civil society, consumers, and the international community, including WIPO and its Member States. As the chapters on the FFMs show, many persons consulted expressed needs and expectations specifically addressed to their respective national Governments who have a key role to play.

Further exploration of the role of IP in TK protection also requires a technical understanding of IP and application in the specifics of concrete uses of TK. For its part, as the specialized United Nations agency responsible for the promotion of IP worldwide, WIPO is committed to continuing to address conceptual problems and undertake a practical and technical examination of the application of the IP system to various forms of TK in order to provide an informed and realistic analysis of the IP aspects of TK protection.

An efficient IP system that protects TK will promote continued creation and innovation based on that knowledge. IP is not only about conferring property rights. It is also about recognition of and respect for the contributions of human creators. From this perspective, IP has a very important role to play in protecting the dignity of holders of TK and, by recognizing property rights in relation to such knowledge, giving those holders a degree of control of its use by others. The protection of TK also benefits third parties, who are able to enjoy access to protected tradition-based innovation and creation that may not be collected, captured in some media, or find channels of distribution without IP protection.

The FFM's have shown the richness and diversity of TK on a global scale, both in terms of its inherent creativity and as potential subject matter for IP protection. The IP system cannot, however respond fully to all the needs of TK holders. Many of the problems encountered by TK holders are less "legal" than "operational" – TK holders (as do some other sectors of society) often lack the know-how and financial resources to take advantage of the IP system, whether in its present or in an evolved form, and they need support in this respect. There are nevertheless certain conceptual difficulties. However, the fact that existing standards of IP may not be in perfect harmony with elements of TK worthy of protection, should not be seen as an insuperable obstacle. IP has consistently evolved to protect new subject matter, such as software and layout-designs, the emergence of which was unforeseeable even twenty years earlier. Copyright protection has been extended to the digital environment. IP is now moving forward to protect databases. Given its evolutionary and adaptive nature, it is not inconceivable that the IP system might provide effective protection for traditional knowledge.

PostScript

Based on its exploratory work in the 1998-1999 biennium, WIPO is continuing its work on TK and expressions of folklore in the 2000-2001 biennium. Several Main Programs in the Program and Budget for the 2000-2001 biennium³⁴ contain proposed activities relating to these issues, including the Main Program of the Global Intellectual Property Issues Division.

These activities respond directly to many of the needs and expectations identified during the FFM's. They include, for example:

1. The development of information materials on options under the existing IP system for the protection of TK

These materials will provide practical information on options for the protection of TK under the IP system. The materials will be aimed at two main target groups, being TK holders and the national IP offices responsible for the administration of the IP system in each country. The materials will form the basis of WIPO's TK-related training activities, including the national workshops referred to below in activity 2. The materials will also be widely disseminated.

The same materials will also form the basis of an IP/TK Distance Learning Course to be offered by WIPO. The Distance Learning Program of the WIPO Academy takes full advantage of information technology and the Internet, offering new teaching methods, specially designed course materials, evaluation tools, tailored means of delivery, and expanded audiences. A six part Introduction to Intellectual Property course has been

developed and tested, and has been available to a worldwide audience since October, 1999, in English, French and Spanish. Teaching takes place in the virtual environment of the WIPO Academy's web site at <<http://academy.wipo.int>>. Further information is available at this website. It is expected that the new Distance Learning Course on IP and TK will be available during the first half of 2001.

2. Practical, national information and training workshops on the IP system and the protection of TK

The workshops will provide information and training on the IP system and the protection of TK to TK holders and other persons at the grassroots level, and to national IP offices. The workshops will be based on the written information materials referred to in activity 1 above. In addition to these workshops, TK protection is now almost invariably included in the programs for the many training activities organized by WIPO's Cooperation for Development sector.

3. IP information, training and standards for the documentation of TK

The activity would pursue two practical results: (1) it will allow TK documentation initiatives to manage IP rights (IPRs) during the TK documentation process, and (2) it will allow national IP offices to integrate the TK documentation from those initiatives into their existing procedures for filing, examining and granting of IPRs under the existing IP system. For example, by integrating TK documentation into existing procedures and IP information systems, IP offices could include TK documentation into their prior art searches when examining applications for patents in respect of TK-based inventions. The output of the activity would be practical information materials on managing IPRs during the documentation process, written in a "How To"-format and accessible to users with limited IP-background. The information materials would be applied in practical training workshops on IPR management for communities and key documentation institutions. The workshops would seek to link communities, documentation initiatives, and national IP offices so as to initiate cooperation between IP offices and TK documentation initiatives at the national level

4. Practical studies of actual examples in which TK protection has been sought under the IP system

The activity will provide practical information on specific and actual examples in which indigenous and local communities have taken advantage of, or attempted to use, the IP system to either protect their TK or to further their own interests in the commercial application and utilization of their TK. The output of the activity will include practical information on difficulties and successes experienced in applying the IP system to TK, lessons learned and divergences between identified needs of TK holders and the protection provided by the existing IP system. The results of the activity will be disseminated and used in WIPO's training activities, including those referred to in activity 2 above.

5. Feasibility studies on the applicability of customary laws to TK

TK holders are subject to both customary and modern legal systems, since their knowledge constitutes subject matter to which both may apply. The interfaces,

similarities and differences between customary and modern legal systems require understanding and management. This activity would seek ways to manage the relationship between modern and customary understandings of IPRs over TK subject matter. It would record customary law systems and related cultural understandings relevant for TK protection and draw implications on how the IP system may recognize and use customary law to manage the relationship with TK holders.

6. A pilot project on collective acquisition, management and enforcement of IPRs in TK

One of the problems in the IP/TK field is the collectivity of creation and ownership of TK. This activity would specifically address this issue by exploring options for the collective acquisition, administration and enforcement of IPRs by TK holders' associations. It would seek to examine the capacity of a selected community or TK holder association to acquire, collectively exercise and enforce all relevant IPRs on behalf of the holders.

¹ Sub-program 11.1 "Intellectual Property Rights for New Beneficiaries", Main Program 11, WIPO Program and Budget 1998-99.

² *Idem*.

³ S. Le Gall, Letter to WIPO, January 9, 2000.

⁴ D. Nakashima, "Conceptualizing Nature: The Cultural Context of Resource Management", 34 (1998) *Nature Resources*, UNESCO 8, p. 18.

⁵ G. Dutfield, "The Public and Private Domains: Intellectual Property Rights in Traditional Knowledge" (2000), Vol. 1, No. 3, *Science Communication*, pp. 276-277

⁶ Article 2(viii), WIPO Convention.

⁷ For this approach, see for example M. Brown, "Can Culture be Copyrighted?", 49, 2, *Current Anthropology*, (1998), p. 193

⁸ See for example: P. Jaszi, and M. Woodmansee, "The Ethical Reaches of Authorship", (1996), 95 *The South Atlantic Quarterly*, p. 947; J. Boyle, *Of Shamans, Software and Spleens* (Harvard University Press, Cambridge, Mass. And London, 1996); D. Posey and G. Dutfield, *Beyond Intellectual Property* (International Development Research Centre, Ottawa, 1996); G. Dutfield, "Intellectual Property Rights, Trade and Biodiversity: the Case of Seeds and Plant Varieties", July 1999; G. Dutfield, *Can the TRIPs Agreement Protect Biological and Cultural Diversity*, 10, (Biopolicy International Series, 1997); C. Horton, "Protecting Biodiversity and Cultural Diversity Under Intellectual Property Law: Toward a New International System" (1995) 10 *J. Envtl. Law and Litigation*; S. Mills, "Indigenous Music and the Law: An Analysis of National and International Legislation", (1996) *Yearbook for Traditional Music*, 57; T. Simpson, *Indigenous Heritage and Self-Determination* (1997); "Indigenous Peoples' Knowledge and Intellectual Property Rights", Proceedings of the Indigenous Peoples' Knowledge and Intellectual Property Rights Consultation, Organized by the Pacific Concerns Resource Center. April 24-27, 1995 Suva, Fiji; Julayinbul Statement on Indigenous Intellectual Property Rights, 1993; Kari-Oca Declaration and Indigenous Peoples Earth Charter, 1992; Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples, 1992.

⁹ D. Posey, "Protecting Indigenous Rights to Diversity" (1996) 38/3 *Environment* 7, quoted in J. Tunney, "E.U., I.P., Indigenous People and the Digital Age: Intersecting Circles", 9 [1998] *E.I.P.R.* 335, p. 336.

¹⁰ J. Tunney, *op. cit.*, p. 336.

¹¹ See G. Dutfield, "The Public and Private Domains: Intellectual Property Rights in Traditional Knowledge" (2000) Vol. 21, No.3, *Science Communication*, p. 278.

¹² See G. Dutfield, *Intellectual Property Rights, Trade and Biodiversity* (IUCN, UK), pp. 64-65;

¹³ Request for Reexamination of U.S. Plant Patent No. 5, 751, March 30, 1999 (Ayahuasca)

¹⁴ *Op. cit* Tunney, p. 336.

¹⁵ See, for example, Request for Reexamination of U.S. Plant Patent No. 5, 751, March 30, 1999 (Ayahuasca)

¹⁶ Downes, D., "Using Intellectual Property as a Tool to Protect Traditional Knowledge: Recommendations for Next Steps", Draft CIEL Discussion Paper prepared for the Convention on Biological Diversity Workshop on Traditional Knowledge, November 1997, p. 3.

¹⁷ Downes, *op.cit.*, p.7.

¹⁸ Statement by Anil Gupta at WIPO Roundtable on Intellectual Property and Traditional Knowledge, Geneva, November 1 and 2, 1999. See also Downes, *op. cit.*, p.3; Chand *et al*, “Contracts for ‘Compensating’ Creativity: Framework for Using Market and Non-Market Instruments for Rewarding Grassroots Creativity and Innovation”, Paper prepared for Forum Belem: Paths of Sustainable Development, November 1996; and, “Traditional Knowledge: A Holder’s Practical Perspective”, Varma, Shri Sundaram, SRISTI, Paper presented at WIPO Roundtable on Intellectual Property and Traditional Knowledge, Geneva, November 1 and 2, 1999.

¹⁹ Dutfield, *op. cit.*, 281.

²⁰ Quoted in H. Marrie, “The Convention on Biological Diversity, Intellectual Property Rights and the Protection of Traditional Ecological Knowledge”, Masters Dissertation, Law School, Macquarie University, Australia, July 20, 1998, section 5.4.

²¹ Article 8.

²² See Articles 12 and 33. Draft United Nations Declaration on the Rights of Indigenous Peoples, August 26, 1994 (E/CN.4/1995/2; E/CN.4/Sub.2/1994/56).

²³ See Principle 4. Principles and Guidelines for the Protection of the Heritage of Indigenous People (E/CN.4/Sub.2/1995/26).

²⁴ Dutfield, *op. cit.*, p. 281.

²⁵ *Ibid.*

²⁶ Brown, *op cit.*, p. 204.

²⁷ Dutfield, *op. cit.*, p. 287

²⁸ This approach is described as a “third approach” by I. McDonald, *Protecting Indigenous Intellectual Property* (Australian Copyright Council, Sydney, 1998), p. 11.

²⁹ Downes, *op. cit.*, p. 7; Dutfield, *op. cit.*, pp. 283-284.

³⁰ Article 14.

³¹ Article 2(viii).

³² Record of WIPO Roundtable on Intellectual Property and Traditional Knowledge, Geneva, November 1 to 2, 1999, pp. 4-5.

³³ Such as the Philippines, Costa Rica, the Andean Pact countries, the Organization of African Unity and the ASEAN countries.

³⁴ See at <www.wipo.int> The Main Program of the Global Intellectual Property Issues Division is Main Program 11.