

PROTECTION OF TRADITIONAL KNOWLEDGE

CONTENTS

	<u>Paragraph</u>
I. INTRODUCTION	1
II. WHAT IS TRADITIONAL KNOWLEDGE? WHY IS ITS PROTECTION IMPORTANT?	4
III. 'INDIGENOUS' AND 'TRADITIONAL' KNOWLEDGE	12
IV. TRADITIONAL KNOWLEDGE AND FOLKLORE	14
V. CUSTOMARY PROTECTION OF TRADITIONAL KNOWLEDGE	16
VI. PROBLEMS CONFRONTING HOLDERS OF TRADITIONAL KNOWLEDGE	19
VII. INTELLECTUAL PROPERTY AND TRADITIONAL KNOWLEDGE: THE WORK OF WIPO	26
a) Fact-Finding Missions on Traditional Knowledge, Innovations and Culture	28
b) WIPO-UNESCO Regional Consultations on the Protection of Expressions of Folklore	31
VIII. THE WORK AHEAD	36
IX. CONCLUSION	38

I. INTRODUCTION

1. Rapid technological change and global integration require active exploration of emerging intellectual property issues, to offer creative and adequate responses to challenges facing the intellectual property system. The WIPO Program on Global Intellectual Property Issues aims at enhancing understanding of the reciprocal relationships between intellectual property and traditional knowledge, biotechnology and biological diversity, and selected aspects of economic, social, cultural and technological development. The activities carried out under this Program complement other WIPO activities concerned with the progressive development of industrial property, copyright, and related rights and cooperation with developing countries. The overall objective of the Global Intellectual Property Issues Division (Global Issues Division) is to promote the continued viability, increased efficiency and broader coverage of the intellectual property system, through exploration of all the challenges that the emergence of new uses and new users of intellectual property rights—such as holders of traditional knowledge—pose to the international community.

2. In a world increasingly characterized as the “global information society,” we are witnessing, on the one hand, the rapid emergence of modern information technologies, and, on the other hand, an increasing awareness about “traditional knowledge” and its spiritual, cultural and economic values.

3. At a time when the wealth of nations lies increasingly in the knowledge which their peoples’ hold, some groups are claiming their stake to an important element of this new information landscape, “traditional knowledge.” However, what do we mean by “traditional” knowledge? How is it different from “modern” knowledge? Who are its holders? And, does it need protection in the “global information society?”

II. WHAT IS TRADITIONAL KNOWLEDGE? WHY IS ITS PROTECTION IMPORTANT?

4. Traditional knowledge is not limited to any specific field of technology or the arts. The entire field of human endeavor is open to inquiry by traditional methods and the full breadth of human expression is available for its transmission.

5. 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/belief system. When a traditional singer performs a song, the cadence, melody, and form all follow rules, which have been maintained for generations. Thus, a song’s performance entertains and educates the current audience, but also unites the current population with the past.

6. Understanding the interplay between practical knowledge, social history, art, and spiritual/religious beliefs provides a valuable foundation for developing an understanding for the people which hold this knowledge (see examples in Boxes A and B). While modern arts and sciences often place individual accomplishment over community development, traditional knowledge systems celebrate the community’s cooperative effort.

7. 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.

Box A: Traditional Veterinary Medicine

In Vembur village, Tamil Nadu, India, there is a man by the name of Thiru Palchamy Gounder who has been curing animals since he was sixteen. Developing his trade under the guidance of his guru, Kandavilswamy, this traditional veterinarian has gained fame within his region for being able to cure a variety of bovine ailments. Using medications developed from local plants, he is able to treat such common maladies as fractures, abscesses, broken horns, swollen tongues, swollen faces, and headaches. The treatments can last from two hours to a month, but the continued demand for these services provides little doubt as to the efficacy.

Associations of grassroots innovators are compiling such traditional knowledge to save it from disappearance, to promote respect and protection for it, to disseminate it and to add value to it through research. They see this as a possible avenue for a bottom-up approach to development. E.g., some associations hope to market TK-based products, after obtaining patent protection, for the benefit of the communities and innovators that have developed this knowledge.

Compiled from: "Keeping Knowledge Alive: Gounder's cattle cures." Honey Bee Vol. 9 No. 4. October-December, 1998 and results of the South Asia Fact Finding Mission undertaken by the Global Issues Division.

8. An immediate need is to establish a definition of traditional knowledge. What can be said for the time being, and taking into account the purposes of WIPO's on-going work, is that traditional knowledge is a multifaceted concept that encompasses several components. What characterizes traditional knowledge is the fact that, generally, it is not produced systematically, but in accordance with the individual or collective creators' responses to and interaction with their cultural environment. For this reason, existing intellectual property mechanisms, which are intended to function in a trade-related context, may not fully respond to the essentially cultural nature of traditional knowledge. In addition, traditional knowledge, as representative of cultural values, is generally held collectively. This results from the fact that what can be sometimes perceived as an isolated piece of literature (a poem, for example) or an isolated technical 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.

9. 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. "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. 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, 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. Thus, we are not talking only about freezing and preserving knowledge that exists now. We are also talking about preserving what exists as an indispensable and powerful tool for fostering continued traditional innovation and creativity.

10. The protection of traditional knowledge is important for communities in all countries, particularly perhaps in developing and least developed countries. On one level, traditional knowledge plays an important role in the economic and social organization of those countries, and placing value on such knowledge is a viable means of promoting a sense of national cohesion and identity. On another level, developing and least developed countries are engaged in implementing two international agreements—the Convention on Biological Diversity (CBD) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)—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 intellectual property protection, as a means of promoting free trade. It may be 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. This is an example of how protection of traditional knowledge at the national and the international levels may be seen as a potentially powerful tool for advancing the integration of least developed countries into the global economy.

11. Intellectual property, however, is not only about property. It is also about recognition of and respect for the contributions of identifiable, human creators. From this perspective, intellectual property has a very important role to play in protecting the dignity of holders of traditional knowledge and, by conferring property rights in relation to such knowledge, giving those holders a degree of control of its use by others.

III. ‘INDIGENOUS’ AND ‘TRADITIONAL’ KNOWLEDGE

12. The distinction between “indigenous knowledge” and “traditional knowledge” is a subtle one. Essentially, “indigenous knowledge” is a term used to identify the knowledge held by “indigenous peoples” (of which there is no universally accepted formal definition). Although indigenous knowledge is generally considered traditional knowledge, not all traditional knowledge is indigenous knowledge. Since indigenous knowledge is otherwise similar to traditional knowledge in its transmission, scope, and diversity, it is appropriate to consider indigenous knowledge a subset of traditional knowledge.

13. The value of using the term indigenous knowledge arises when one wants to describe the type of knowledge and the people who hold it. For example, information passed down by traditional means amongst the Gagudju of Australia may be referred to as “indigenous knowledge” or “traditional knowledge”; however, the information passed down by early North American colonists through traditional means would be “traditional knowledge” but not “indigenous knowledge.”

IV. TRADITIONAL KNOWLEDGE AND FOLKLORE

14. If “traditional knowledge” is distinguishable from “indigenous knowledge” on the grounds of the identification of their respective creators and holders, what differentiates “traditional knowledge” and “folklore” may be even subtler. “Folklore,” indeed, has been characterized through many different approaches, the broadest being as a set of literary, artistic, religious, scientific, technological and other traditions and productions, which are transmitted from one generation to another. This sort of expanded approach, which has been adopted in some laws, includes literary works of any kind, oral or written, such as tales, legends, proverbs and myths. It includes styles and artistic productions, such as music and dance, religious traditions and ceremonies, scientific and technical knowledge. Like traditional knowledge, folklore is not necessarily created by indigenous peoples. Its creators and holders are all the individuals who form a whole people, indigenous or not.

15. The reason for the distinction between the two terms is that folklore has been almost invariably approached from a copyright perspective, which may be relevant to protect some aspects of its subject matter, namely literary, musical and artistic works. However, the technological and methodological content of folklore (inventions, crafts, designs, carvings) may not be adequately protected if the holders are given the right to prevent others only from reproducing their creations or disseminating them to the public through performance or broadcasting. Technological content consists of ideas, and ideas are protected by preventing others from using them. Therefore, the mechanisms of industrial property protection (for example, patents, trademarks and industrial designs) are likewise important tools to protect technical ideas from being misappropriated by unauthorized third parties. This explains why the term “traditional

knowledge”, which is not linked to a specific area of intellectual property, may be broader and more inclusive than “folklore”. The work program of the Global Issues Division takes a holistic approach, studying the legal and economic features of all forms of intellectual property (both copyright and industrial property) as possible means of protecting traditional knowledge, including folklore.

V. CUSTOMARY PROTECTION OF TRADITIONAL KNOWLEDGE

16. A related aspect of traditional knowledge is the method of its regulation established within the community. The systems which govern the use and transmission of traditional knowledge within a community, which may bear remarkable similarity to formal intellectual property systems, may be referred to as customary or “informal” regimes.

17. Essentially, an informal regime is a system of rules, rights, and obligations which are generally not written down, but which achieve standing by the community’s consensus to be bound by those rules. Customary law results from the accretion and sedimentation of repeated practices. By way of constant repetition, it is assumed that those practices have been accepted by the community. These informal regimes are often monitored and enforced by elders, specialized experts, and religious leaders within the community.

18. These community leaders will generally settle disputes, determine which artisans are eligible to practice which arts, and preserve the history and culture of the people. In modern times, these leaders have represented their communities’ views in national courts, such as in certain Australian copyright cases (such as *Milpurruru v. Indofurn Pty Ltd.*, 1995). In this case, Aboriginal law and custom were taken into account in fixing the amount of damages. However, such a case may be an exception, since customary law is frequently enforceable only within communities; customary practices will not generally be recognized as binding rules by authorities and courts outside the communities. When the economic interests of industries and consumers, on the one hand, and holders of traditional knowledge, on the other hand, come into contact (so-called “biopiracy” may be a good example), the existing legal mechanisms may not be adequate to protect either side: existing intellectual property mechanisms do not cover informal sets of non-systematic, undocumented knowledge; and customary norms are not applicable to the behavior of individuals and corporations outside the traditional communities. A major task, then, will be to find a common denominator.

VI. PROBLEMS CONFRONTING HOLDERS OF TRADITIONAL KNOWLEDGE

19. Holders of traditional knowledge are faced with a variety of difficulties. 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.

20. Thus, a primary need 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.

21. 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.” 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.

22. 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.”

23. However, after even a simple inquiry into the field, one is soon aware of the true vitality and value of this knowledge. Contemporary examples of this recognition are evident in fields ranging from music to medicine, biology, and ecology. For example, music producers have sampled traditional music in chart topping hits, and native swidden farming in South America has been recognized as an ecologically sustainable form of agriculture.

Box B: Agricultural Innovation

The wealth and diversity of local knowledge systems surrounding traditional agriculture includes traditional knowledge about the uses of plants, plant conservation strategies, pest and disease management, environmental monitoring for ecological change, and traditional selection and breeding methods. For example, such methods allowed Dhularam Mondal, a small innovative farmer from India, to develop a new broad bean variety with larger pods than the previous varieties. Furthermore, the UN Food and Agriculture Organization (FAO) has documented that women cultivators of the Aguaruno Jivaro community in northern Peru identify and select the cassava cultivars on the basis of characteristics that show the greatest phenotypic variation. Panicle harvesting by Mende farmers in Sierra Leone has allowed them to select rice varieties of short, medium and long duration. The same FAO Report found that differences between Cuban and Mexican maize are linked to maize being prepared and eaten in different ways in the two countries, which has led farmers to select varieties for different properties in the two countries.

Compiled from: “Farmer breeds a broad bean variety.” Honey Bee Vol. 9 No. 1. Jan-March 1998; and FAO, The State of the World’s Plant Genetic Resources for Food and Agriculture, FAO, 1997.

24. 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.

25. Unfortunately, many of the commercial interactions between traditional communities and private corporations can result in lopsided deals from which legal uncertainty 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 these populations 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.

VII. INTELLECTUAL PROPERTY AND TRADITIONAL KNOWLEDGE: THE WORK OF WIPO

26. The potential role of intellectual property rights in the protection of traditional knowledge is an emerging field, which requires thorough exploration. Although there are at present no clear, specific international intellectual property 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 culture. These efforts have met with mixed success, but greater appreciation and respect for traditional knowledge is drawing international attention to these issues.

27. In search of a model that makes the intellectual property system and traditional knowledge more compatible, the World Intellectual Property Organization (WIPO) has initiated a program of activities to assess and address the needs of the holders of traditional knowledge and its Member States. One of the projects undertaken in the past two years has been a global assessment of the needs and expectations of holders of traditional knowledge.

a) *Fact-Finding Missions on Traditional Knowledge, Innovations and Culture*

28. WIPO's Global Issues Division has undertaken a series of nine Fact-Finding Missions (FFMs) to collect information on the intellectual property needs and expectations of holders of traditional knowledge. From the FFMs, WIPO learned that folklore and TK are rich and diverse sources 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 considered 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.

29. WIPO learned from the FFMs that the intellectual property issues related to TK cut across the conventional branches of intellectual property 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. The FFMs also revealed that numerous indigenous and local communities have protocols for protection of TK and TK-based innovations under customary law. In general, 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 intellectual property protection.

30. From the preliminary data gathered during the FFMs, one can already see areas where the existing intellectual property system might be used to meet expressed needs of TK holders. For example, under the umbrella of an association of grassroots innovators, fifteen traditional healers from India intend to collectively file a patent application for a *veterinary medical kit* consisting entirely of natural plant medicines and compiled from their traditional practices and formulations (comparable to those described in Box A). The patent application names the 15 healers as inventors and the association as the applicant. This collective filing allows the healers—who individually could not afford the patent filing fees—to share the costs of the application, the research on commercialization possibilities, and the risks of disclosure in case of rejection of the application. They suggested to WIPO to use this experience as a basis for the exploration of possible collective filing and management of patent rights by TK holders and their associations.

b) *WIPO-UNESCO Regional Consultations on the Protection of Expressions of Folklore*

31. A specific area of study related to traditional knowledge has been the protection of so-called "expressions of folklore." The international community has recognized the need to protect expressions of folklore since the 1970's. In 1982, a set of model provisions were developed under UNESCO/WIPO auspices which could be incorporated into national legislation to help protect expressions of folklore. According to the model provisions, expressions of folklore include "productions consisting of characteristic elements of the traditional artistic heritage developed and maintained by a community . . . or individuals reflecting the traditional artistic expectations of such a community . . ." These productions included verbal, musical, and tangible expressions, as well as "expressions by action" (e.g. folk dances, plays, and artistic forms).

32. The provisions would provide economic rights to authorize or prevent the exploitation of a specific expression of folklore, and rights would be exercised by a governmental authority or the

community concerned. Currently, 33 countries have established provisions within their national legislation (usually under copyright) for the protection of expressions of folklore.

33. Unfortunately, effective international regimes for the exercise and administration of these rights have yet to develop; however, at the 1997 World Forum on the Protection of Folklore, UNESCO and WIPO were requested to convene regional consultations on these issues.

34. Since then the Global Issues Division has convened four consultations, namely for African countries, for countries of Asia and the Pacific region, for Arab countries and for Latin America and the Caribbean. The primary purpose of these consultations was to enable representatives of countries from these regions to exchange views and clarify issues in relation to the protection of folklore. The consultations produced recommendations to countries in their regions and to WIPO and UNESCO for future work on the protection of folklore.

35. The recommendations from these consultations, which are addressed to States and to WIPO and UNESCO, generally focus on three areas: (1) the need for identification and documentation of expressions of folklore (including the development of international standards for documentation), (2) the need for study of a regional approach to exercise/administration of rights in expressions of folklore which originate or are used in more than one country of a region, and (3) the possible development of *sui generis* forms of protection (whether under national law or an international treaty, or under a "soft law" approach such as the preparation of guidelines) for expressions of folklore. Another important recommendation emerging from the regional consultations calls for WIPO to undertake work towards protecting traditional knowledge (e.g. medicinal, agricultural, ecological) which is not included in the subject matter covered by the 1982 Model Provisions.

VIII. THE WORK AHEAD

36. The immediate work ahead requires that basic conceptual problems be addressed, and practical solutions tested, in respect of the relationship between tradition-based creativity and invention, on the one hand, and the formal intellectual property system as reflected in the TRIPS Agreement and in the treaties administered by WIPO, on the other. Only when that basic, technical work is done will the needs for progressive development of intellectual property norms be clear and measurable.

37. In this context, during the 2000-2001 biennium WIPO is undertaking a number of activities aiming at achieving the following results: a better understanding of the intellectual property system as it relates to traditional knowledge; a wider appreciation of the use of the intellectual property system to protect traditional knowledge; and enhanced insight into views, expectations and perceptions concerning possible need for evolution of the intellectual property system to protect traditional knowledge. The envisaged activities, which necessarily will build on the experience acquired by the Global Issues Division during the 1998-99 biennium, include (but are not limited to) the development of information materials on the intellectual property system and on options under the existing system for the protection of traditional knowledge; intellectual property information, training and standards for the documentation of traditional knowledge and folklore; a feasibility study on the use of intellectual property law or practice to protect traditional knowledge; feasibility studies on the applicability of customary laws to traditional knowledge and folklore; information and training workshops for traditional knowledge holders, including indigenous peoples, intellectual property offices and others, on the intellectual property system and its possible use to protect traditional knowledge; organization of regional roundtables for the holders of traditional knowledge, with participants including indigenous peoples, governments, non-governmental organizations and other interested parties.

IX. CONCLUSION

38. An efficient intellectual property system that protects traditional knowledge will, at a minimum, recognize the value of documentation and preservation of existing knowledge, and promote continued creation and innovation based on that knowledge. The cultural and ethical values of new stakeholders must be taken into account, but at the same time the established intellectual property regime must be the foundation for future work, in order to create confidence in prospective partners in the use of traditional knowledge. The fact that existing standards of intellectual property may not be in perfect harmony with 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 was unforeseeable even twenty years earlier. It is now moving forward to protect databases and copyright in a digital environment. Likewise, it is not inconceivable that the intellectual property system might further evolve to provide effective protection for traditional knowledge.