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INTELLECTUAL PROPERTY AND GLOBAL ISSUES

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CONTENTS

	Paragraphs
Introduction	1
Traditional Knowledge and Intellectual Property	2 to 3
What is Traditional Knowledge?	4 to 8
'Indigenous' and 'Traditional' Knowledge	9 to 11
Customary Protection of Traditional Knowledge	12 to 14
Problems Confronting Holders of Traditional Knowledge	15 to 21
Intellectual Property and Traditional Knowledge	22 to 27
Protection of Folklore	28 to 32
Conclusion	33 to 34

INTRODUCTION

1. Rapid technological changes, globalization of markets and the expanding relevance of intellectual property in national development policy require active exploration of emerging intellectual property issues, to offer creative and rapid responses to challenges facing national policies and the intellectual property system. The WIPO Program on Global Intellectual Property Issues aims at enhancing understanding of the reciprocal relationships, at the national, regional and global levels, between the intellectual property system and traditional knowledge, biotechnology and biological diversity, folklore and selected aspects of economic, social, cultural and technological development. The activities carried out under this Program will complement the activities of development of industrial property, copyright, and related rights and from cooperation with developing countries. The overall objective of WIPO's Global Intellectual Property Issues Division, is to promote the continued viability, increased efficiency and broader coverage of the intellectual property system, through exploration of all the challenges it faces.

TRADITIONAL KNOWLEDGE AND INTELLECTUAL PROPERTY

- 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 value.
- 3. At a time when the wealth of nations lies increasingly in the knowledge which they own, some groups are claiming their stake to a small plot of this new information landscape; they claim to possess "traditional knowledge."
 - What do we mean by "traditional" knowledge?
 - How is it different from "modern" knowledge?
 - Who are its holders?
 - Does it need protection in the "global information society?"

These questions may best be approached by way of example.

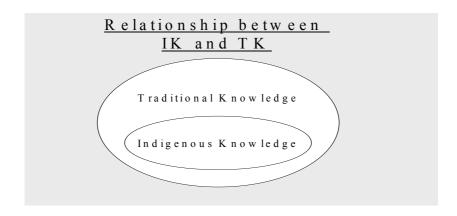
WHAT IS TRADITIONAL KNOWLEDGE?

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. 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. While modern scientific drugs may be tested over the course of months and years, most traditional knowledge has developed over centuries.

- 5. Other key components of traditional knowledge are the music, dance, and "artesant" (i.e. designs, textiles, plastic arts, crafts, etc.) of a people. Although there are creations, which are 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.
- 8. When a community utilizes its traditional knowledge, it also reinforces its own self-identity. This cultural component of traditional knowledge should not be overlooked by the casual observer.

'INDIGENOUS' AND 'TRADITIONAL' KNOWLEDGE

- 9. There are two additional aspects of traditional knowledge should be addressed.
- 10. The distinction between "indigenous knowledge" and "traditional knowledge" is a subtle difference, which should be kept in mind. Essentially, 'indigenous knowledge' (IK) is a term used to classify the knowledge held by indigenous peoples. Although indigenous knowledge is generally considered traditional knowledge, not all-traditional knowledge is indigenous knowledge. This distinction arises from the groups, which are considered "Indigenous Populations" (there is no universally accepted formal definition). 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.
- 11. 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."



CUSTOMARY PROTECTION OF TRADITIONAL KNOWLEDGE

- 12. A related aspect of traditional knowledge is the method of its regulation established within the community. The systems, which are similar to formal intellectual property systems, which govern the flow of traditional knowledge within a community are referred to as customary or informal regimes.
- 13. Essentially, an informal regime is a system of rules, rights, and obligations which are not written down, but which achieve standing by the community's respect of those rules much like common law in western legal systems. These informal regimes are often regulated by elders, specialized experts, and religious leaders within the community.
- 14. 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 the Australian case of *Bulun Bulun & Milpurrurru v. R & T Textiles Pty Ltd.* In this case, George Milpurrurru brought action individually and as a representative of the Ganalbingu people. Although these informal systems often lack a written body of law, such regimes are just as effective in protecting local artists and innovators as the formal IP systems.

PROBLEMS CONFRONTING HOLDERS OF TRADITIONAL KNOWLEDGE

- 15. Holders of traditional knowledge have been faced with a variety of difficulties in recent times. 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.
- 16. One of the primary needs identified so far has been the necessity 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 the entire tradition and knowledge system.

17. 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."

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." <u>Honey Bee</u> Vol. 9 No. 4. October-December, 1998 and results of the South Asia Fact Finding Mission undertaken by GIPID.

- 18. 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".
- 19. 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." <u>Honey Bee</u> Vol. 9 No. 1. Jan-March 1998; and FAO. <u>The State of the</u> World's Plant Genetic Resources for Food and Agriculture. FAO, 1997.

- 20. Yet another problem confronting holders of traditional knowledge is the commercial exploitation of their knowledge for profit 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 Neem oil in large parts of Asia, Africa and Latin America) all bear evidence to the value of traditional knowledge in the modern global economy.
- 21. Unfortunately, many of the commercial interactions between traditional communities and private corporations can result in lopsided deals heavily favoring the corporations. 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.

INTELLECTUAL PROPERTY AND TRADITIONAL KNOWLEDGE

- 22. 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 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 law 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.
- 23. At the nexus between modern intellectual property systems and traditional knowledge systems, 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.

- 24. After undertaking a series of nine Fact Finding Missions (FFMs) to meet with holders of traditional knowledge throughout the world, WIPO's Global Intellectual Property Issues Division (GIPID) will report on the intellectual property needs and expectations of holders of traditional knowledge. From the preliminary data, one can already see areas where the existing intellectual property system might be used to meet expressed needs of TK holders.
- 25. 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.
- 26. Also, the FFMs have brought attention to the existence of IP-like systems for ensuring the transfer and use of traditional knowledge under customary regimes. In North America, for example, WIPO officials learned that complex systems of rights and obligations surrounded the exchange of songs, dances, names and teepee designs within and between the Native American tribes of North America. Within many tribes, there exist strong codes of conduct for respect of the intellectual property of others.
- 27. There existed wide-reaching and complex regimes by which the exclusive rights to perform, transmit or recite certain songs and dances were traded and transferred between different families and nations (the trade of such rights took place through formalized transfer rituals). For example, among members of the Blood Tribe, the rights to reproduce and display certain teepee designs were exclusive to specific right holders who could license or transfer these rights. Elders of the Cree nation insisted to WIPO officials that whatever formal IP protection is provided for TK, it must involve the Cree customary regime: "... our drums do not speak a language other than our language." It was suggested that WIPO study whether and how the possible use of these regimes with existing formal IP structures might provide a bridge between traditional knowledge and modern IP protection.

PROTECTION OF FOLKLORE

28. Another 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).

- 29. 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, thirty-three countries have established provisions within their national legislation (usually under copyright) for the protection of expressions of folklore.
- 30. 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.
- 31. Since then GIPID 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.
- 32. 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.

CONCLUSION

- 33. The combined results from the Fact Finding Missions and the folklore consultations will guide the development of WIPO's work in these fields over the next biennium. Procedures for documenting, promoting respect, and examining improved legal protection (e.g. *sui generis* systems) for traditional knowledge are all areas that would benefit from continued systematic study.
- 34. It also may be useful for Member States to initiate programs that internally evaluate the breadth and depth of traditional knowledge practiced. Finally, a greater appreciation for the cultural, aesthetic, medicinal, ecological, and ethical value inherent within traditional knowledge may be a key to developing international standards which respect and utilize that knowledge for the benefit of all communities. In order to better inform and assist Member States in their drive to promote, protect, and preserve their traditional knowledge resources, GIPID envisions a continued strategy of active engagement to better formulate the vital questions surrounding traditional knowledge within existing formal intellectual property rights systems.