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**A REVIEW OF THE INTERGOVERNMENTAL COMMITTEE ON
GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND
FOLKLORE AT WIPO**

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PREFACE

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EXECUTIVE SUMMARY

Genetic resources, traditional knowledge and folklore are simultaneously valuable internationally traded assets and the intensely symbolic property of traditional communities. The conventional intellectual property rights system does not provide adequate recognition of the unique nature and context of genetic resources, traditional knowledge and folklore and, as such, both defensive protection under the conventional framework and the development of a sui generis regime need to be considered. As the World Intellectual Property Organization's (WIPO) Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore (IGC), commences work under the extended mandate decided at the thirty ninth series of meetings of the WIPO Assemblies in September/October 2003, it is essential for developing countries to consider a number of issues regarding the protection for genetic resources, traditional knowledge, and folklore:

- The protection of rights in genetic resources could clearly benefit from a norm-establishing forum that would play an advisory role to sectoral fora, such as the Convention on Biological Diversity (CBD), the Food and Agriculture Organization (FAO) and the World Trade Organization (WTO), and the agreements that they monitor and implement. The varied nature of the application of genetic resources for commercial and other purposes suggests that intellectual property rights issues relating to them could be better addressed through this means rather than by means of an international instrument whose scope and objectives would be difficult to clarify.
- The protection of rights in traditional knowledge, whether commercial or cultural in nature, requires the establishment of a binding international regime. However, there is, as yet, insufficient information regarding the scope, nature and objectives of such a regime. The elaboration of this information should be undertaken as a matter of urgency and with the clear statement that the intention is to use it as the basis for the development of a binding international regime.
- In the interim, a norm-establishing forum to play an advisory role to national intellectual property offices and international fora regarding the consideration of the defensive protection of traditional knowledge under the conventional intellectual property rights framework is required.
- The protection of rights in folklore, whether commercial or cultural in nature, also requires the establishment of a binding international regime. Unlike the situation with traditional knowledge generally, there is already a substantial body of knowledge that could serve as the basis of negotiations for the development of this regime. A key question for countries is whether they wish to establish a regime for the protection of folklore in parallel with one for the protection of traditional knowledge generally or whether they wish to address these two related fields in the same instrument.
- The continuation of the IGC in its current form, with a broad or ambiguous mandate, creates a risk that it will spend a significant proportion of its time establishing its specific objectives. To avoid this, specific proposals, such as for an international instrument with clearly definable objectives and possible mechanisms, need to be made in the March 2004 session. These proposals should seek the support of the widest possible grouping of developing countries at the earliest opportunity.

- The objectives of the extended mandate of the IGC should focus on establishing focused frameworks for future action, and the basis of the substance of this action, rather than on the, perhaps impossible, goal of adopting the detail of a binding agreement. A clear identification of the objectives, scope and basic mechanisms of an international agreement, and the means for its completion, should provide enough momentum for finalising the negotiation of a binding agreement even after the expiry of the IGC's extended mandate.

I. INTRODUCTION

1. At the time of its creation, the Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore (IGC) was believed to be an important step toward developing internationally acceptable and equitable solutions for the protection of genetic resources, traditional knowledge, and folklore. Developing countries, however, in which the majority of these resources originate, have since often questioned the lack of progress within the World Intellectual Property Organization's (WIPO) framework in addressing the challenges posed by the links between intellectual property and genetic resources and traditional knowledge. As the IGC embarks on its extended mandate, decided in October 2003 at the thirty ninth series of WIPO Assemblies, it is thus essential to assess the work of the IGC in order to determine appropriate strategies and steps for the future. Consequently, this review provides a critical analysis of the activities of the IGC under its original mandate and makes a number of recommendations regarding potential objectives for the next phase of work at WIPO.
2. The review begins, in section II, by discussing the economic and socio-cultural importance of the IGC's key thematic elements: genetic resources, traditional knowledge and folklore. This contextual discussion provides no more than a cross-section of examples that serve to highlight the varying nature of the situations and potential applications of the thematic elements, recognising that any attempt at a comprehensive discussion would be a question of volumes not words. Section III can thus be considered as providing the technical background element of the review.
3. Sections III and IV.1 and IV.2 build upon section II by providing a political background for the review. Section III considers the activities of several international fora that address issues relating to the IGC's key thematic elements while the early sub-sections of section IV consider the background and context of the IGC itself.
4. Subsection IV.3 constitutes the core of the review in its examination of the specific outputs of the IGC under its three key thematic elements. It seeks to assess the detail of the work completed to date in such a manner as to provide an indication of possible future courses of action. The evaluation is primarily focused on the practical results of the work of the IGC, but some consideration of the political context of the IGC's activities is also provided.
5. The final element of the review, in section V, recommends specific approaches that, in the opinion of the authors, would lead to the most practically useful development of the IGC's activities from the perspective of developing countries. While section V is thus probably the most important in considering the short-term future of the IGC, it remains primarily based on opinion. On the other hand, subsection IV.3, as mentioned above, constitutes the core of this review and is based more on technical analysis. This technical and political consideration of the key thematic elements becomes crucial in looking at the medium and longer-term future of the IGC's work if effective and sustainable solutions to current problems are to be found.

II. THE IMPORTANCE OF GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE

6. Genetic resources, traditional knowledge and folklore all have a wide variety of existing economic and commercial applications that are of both direct and indirect benefit to developing countries. These benefits are of value to national economies but are also often critical to the livelihoods of the communities that are the custodians or creators of the resource, knowledge or tradition in question.

II.1 Genetic Resources

7. With rapid advances in the life sciences it is increasingly apparent that the range of application of genetic resources is only limited by human ingenuity and technical capacity. Some of the better recognised and documented samples of the enormous contributions that genetic resources have made, and continue to make, to the improvement of human livelihoods at all levels across the world involve the agricultural and medicinal fields. Other important areas, such as the actual and potential contributions of genetic resources to conservation and development objectives, though not considered here in detail, should, nevertheless, be borne in mind by national and international policymakers alike.

II.1.1 Agriculture

8. Agriculture is the most significant economic activity in the world: without it humanity would not exist. In turn, genetic resources have shaped developments in agriculture for at least the last ten thousand years.¹ A process of gradual dissemination of crops and livestock, together with the principles of cultivation and husbandry, determined the ten or so crops on which humanity is dependent for the bulk of its calorie intake.² The process of the diffusion of, and thus global dependence on, a limited number of key crops is ongoing, but today is much more related to new cultivation and husbandry practices and, perhaps most importantly of all, to a diversity of genetic resources.³
9. The diversity of genetic resources is the foundation of the maintenance of the vitality of crops, the further development and improvement of crop varieties and animal breeds and of the ability to react to changing circumstances, such as pest and disease prevalence or climate change. In some instances, such as the case of resistance to grassy stunt virus in rice,⁴ only a limited number of varieties of a species are involved. However, the majority of breeding programmes depend on tens, if not hundreds, of parental varieties that are slowly crossed to produce an end product.⁵ The actual commercial value of genetic resources for food and agriculture is thus enormous. It is estimated that in the 23 years from 1970 to 1993 the United

¹ See Diamond, J., (1997) *The Rise and Spread of Food Production in Guns, Germs and Steel: The Fates of Human Societies*, New York, pp. 81 -191.

² Rice alone is the staple food for more than half the World's population. Jackson, M. and Lettington, R., (2002), *Conservation and Use of Rice Germplasm: an Evolving Paradigm under the International Treaty on Plant Genetic Resources for Food and Agriculture*, paper prepared for the FAO/International Rice Commission session in Bangkok, July 2002, p. 2. Available at www.fao.org.

³ Lettington, R., (2001), "The International Undertaking on Plant Genetic Resources in the Context of TRIPS and the CBD", in *Bridges Between Trade and Sustainable Development*, ICTSD, Geneva, July-August, pp. 11-16.

⁴ *Supra* note 2, p. 4.

⁵ *Supra* note 3, p. 12.

States' economy gained somewhere between US\$3.4 billion and US\$13.7 billion from the use of improved wheat varieties developed by the International Centre for Maize and Wheat Improvement (CIMMYT).⁶ Although similar data is not available for the benefits accruing to developing countries there is no doubt that these are enormous.

10. The importance of genetic resources in agriculture goes far beyond the maintenance and improvement of varieties and breeds. Many forms of inputs, both fertilisers and pesticides, are based on genetic resources. Bt and the fungus metarhizium, for instance, are well known genetic resource-based pesticides. Moreover, all forms of biological control and integrated pest management are dependent on genetic resources. Less obvious, but equally important, is the role of genetic resources in maintaining agricultural ecosystems. Farmers, in all but the most industrialised of agricultural production systems, are highly dependent on the range of plants, insects, fungi and microorganisms that they do not intentionally cultivate.⁷ These play roles ranging from pollination to nitrogen fixation and the prevention of soil erosion.

II.1.2 Medicines and Public Health

11. The role of genetic resources and traditional knowledge in medicine is probably the best-known example of their economic and commercial application. First, genetic resources are the raw material for many modern pharmaceuticals. Aspirin⁸ and quinine-based anti-malarials,⁹ for instance, are plant based. A number of other products, such as vinblastine and vincristine, are less well-known but still provide handsome profits.¹⁰ Second, traditional and natural medicines play a critical role in primary healthcare in many developing countries and constitute a multimillion dollar market as nutritional supplements in developed countries. Finally, traditional medicines often facilitate the identification of useful genetic resources.

II.1.3 Other commercial applications of genetic resources

12. The potential applications of genetic resources go far beyond the essential fields of agriculture and medicine. The landmark 1980 patentability case of *Diamond vs. Chakrabarty* in the United States revolved around claims over a combination of micro-organisms that could be used to clean up pollution spills.¹¹ Micro-organisms have also recently begun to be applied in the mining industry, where they have the potential to dramatically decrease smelting costs and minimise the associated pollution and energy consumption by biologically separating ore from its surrounding rock. Extremophiles, organisms found in extreme environments such as

⁶ Pardey, P. et al. (1996), *Hidden Harvest: US Benefits from International Research Aid*, IFPRI.

⁷ See Miller, D. and Rossman, A., (1997), "Biodiversity and Systematics: Their Application to Agriculture" in *Biodiversity II: Understanding and Protecting Our Biological Resources*, Reaka-Kudla, M., et al, eds., Joseph Henry Press, pp. 217-229.

⁸ Iwu, M., (2002), *Ethnobotanical Approach to Pharmaceutical Drug Discovery: Strengths and Limitations in Ethnomedicine and Drug Discovery*, Iwu, M. and Wooton, J., eds., Elsevier Science B.V., p. 314.

⁹ Cragg, G.M. and Newman, D.J., (2002), *Drugs from Nature: Past Achievements, Future Prospects* in *idem*. p. 24.

¹⁰ In 1992 it was estimated that global annual needs for these two only amounted to some 5-10kg, but at a cost of US\$ 5 million per kilo the US\$ 25-50 million market is quite significant in developing country terms. Sasson, A., (1992), *Biotechnology and Natural Products: Prospects for Commercial Production*, ACTS Press, Nairobi, p. 36. In addition, this utility is not limited to higher plants, as is illustrated by the fungus-derived penicillin, products derived from sources such as insect and other venoms and the increasing interest in marine organisms. Only 5-15% of higher plants have been investigated for their medical potential, while the vast majority of microbial, bacterial and fungal species, in particular marine organisms, are still unknown to science.

¹¹ *Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

hot springs or on ocean floors,¹² have also been found to have significant commercial applications.¹³

II.2 Traditional Knowledge

13. The contribution of traditional knowledge to human civilisation across the millennia and in a multitude of fields is invaluable. After all, at one time or another in history, all knowledge was what we might consider traditional knowledge and, therefore, the wonders of modern science and technology all, ultimately, have their origins in more humble innovations. In such a context, it would, as in the case of genetic resources, be impossible to present a comprehensive overview of the importance of traditional knowledge. The following are but a few random examples that highlight the value of traditional knowledge to the communities that create, preserve and develop it and its importance, both realised and potential, to humanity as a whole. Innumerable other traditional technologies and skills also play a role today in traditional, industrial and post-industrial societies.

II.2.1 Crop-based agriculture

14. Since modern day agricultural crops are, as explained, the result of centuries of distribution and development in various parts of the world, traditional knowledge played a crucial role in the development and distribution of key agricultural crops. In consequence, the contracting parties of the Food and Agriculture Organization's (FAO) International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR) recognized "the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centers of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world."
15. As is the case with a great deal of traditional knowledge, however, the contribution of traditional agricultural knowledge is not a purely historical fact; it is an ongoing dynamic that still has a role to play today. In the majority of developing countries traditional farmers are still experimenting with the cross-breeding of landraces, sometimes involving unique characteristics. These unique characteristics, such as disease, pest and climate tolerance, are of fundamental importance to the smallholder farmer but also play a significant role in the activities of commercial farmers in both developing and developed countries. For example, the introduction of the resistance to grassy stunt virus of an Indian wild rice variety, *Oryza nivara*, into the main commercial rice species, *Oryza sativa*, was the basis of the rice variety IR36, 'at one time the most widely cultivated variety of any cereal.'¹⁴ Cases such as this also show that traditional agricultural knowledge in crop-based agriculture is inextricably linked to genetic resources: a crop variety is the living embodiment of the knowledge that contributed to its development.

¹² One of Diversa Corp's most promising discoveries is that of a microbe living in temperatures of more than 90 degrees Celsius on the wall of a deep sea vent in the Atlantic Ocean. It is believed to be the most heat-resistant organism known to man. See Brett, C. (2002), "Like Faded Jeans? Thank the Enzyme with the Flamingo", *Bloomberg News*, 21 March, available at www.bloomberg.com.

¹³ An example of the everyday utility of extremophiles is the case of an enzyme recently discovered in a saline lake in Kenya that has been applied in the multimillion dollar business of bleaching denim.

¹⁴ *Supra* note 2, p. 4.

II.2.2 Traditional Medicine

16. Traditional knowledge plays a significant role in facilitating the identification of useful genetic resources for the development of pharmaceutical products in both developed and developing countries. Studies show that at least 25 per cent of prescription pharmaceuticals in the United States are derived from higher plants and that 74 per cent of these resulted from studies of traditional medicines.¹⁵ At the United States Walter Reed Army Institute of Research, for instance, 70 per cent of 500 traditional anti-malarial medicines tested were active. Follow-up research on 18 plants provided 23 compounds with very potent anti-malarial activity.¹⁶
17. The use of medicinal plants is equally important and widely spread. The World Health Organization (WHO) estimates that 80 per cent of the world's population depends on traditional medicine for primary healthcare.¹⁷ Examples of the scale of the use of medicinal plants include a 1995 study that identified, in just one administrative subdivision of Kenya, several hundred species of plants employed to treat some 40 broad conditions ranging from cancer and heart disease to weight control and fertility.¹⁸
18. Though having a lower profile, traditional veterinary medicines, often described as ethnoveterinary medicines, have played, and continue to play, a vital role in developing and developed countries. This knowledge base is vital for the viability of livestock-based traditions, particularly in tropical climates where diseases and pests are prevalent. Moreover, as traditional medicines play a significant role in the development of modern pharmaceuticals, ethnoveterinary medicines provide leads to modern veterinary medicines.

II.3 Folklore

19. The economic and commercial potential of folklore is also apparent. A cursory glance at shops in developed countries, and in many developing countries, reveals a plethora of music, literature, clothing, art and decorative items that are clearly derived from, or are direct copies of, the folklore of traditional communities. The communities that developed and maintained the folklore are generally not even consulted about such a commercialisation. The use of Australian aboriginal art in the manufacture of carpets and of Maori derived names and beliefs in the marketing of Lego products are amongst the cases that illustrate the reality of this situation.
20. There are instances, however, where communities do benefit from, and indeed depend on, the commercialisation of the products of their folklore. In areas of developing countries that attract significant numbers of tourists the local communities will often sell a range of handicrafts that are, or are based on, culturally significant items, such as the Maasai women in areas of Kenya and Tanzania and the indigenous Quechua in the Cuzco District of Peru.
21. A common point between these two basic situations is that in neither case are traditional communities able to capture the true value of their products. In the first situation this results from outright misappropriation, while in the second the problem is more one of bargaining

¹⁵ *Supra* note 9, p. 25

¹⁶ Schuster, B., (2002), "Development of Anti-malarial Agents and Drugs for Parasitic Infections Based on Leads from Traditional Medicine: The Walter Reed Experience", in Iwu and Wooton, *supra* note 8, p. 163 - 171. Nonetheless, only one in ten thousand chemical compounds screened normally becomes a product.

¹⁷ Statistics of the World Health Organization (1985).

¹⁸ Ikolomani Division of Kakamega District, comprising 1,394 km². See Olembo, N., Fedha, S. and Ngaira, E., (1995), *Medicinal and Agricultural Plants of Ikolomani Division Kakamega District*, Development Partners.

positions and access to information, issues that have an intimate relationship with rights. Furthermore, even in this second case, communities generally have little influence once the initial decision of commercialisation is made. The ability to decide what is, and what are not, commercialised raises the question of the social, cultural and spiritual value of genetic resources, traditional knowledge and folklore.

II.4 Cultural and Spiritual Values of Genetic Resources, Traditional Knowledge and Folklore

22. The resources of a traditional community, and the knowledge, traditions, music and art forms that reflect these resources and the belief systems around them are, more often than not, the foundation of that community's identity. There are thousands of distinct ethnic groups and languages in the world today, the overwhelming majority of these found in developing countries, each with its own linguistic and cultural characteristics. A principle common to almost all traditional societies, however, is a dependence on, or more correctly interdependence with, nature and natural resources.
23. Communities have evolved unique ways of interacting with, and acquired immense knowledge of, their natural environment. In fact, the norms and rules governing society's interaction with nature and natural resources make up the bulk of most customary legal systems and play a central role in the political dynamics of their communities:
"Consistent with general principles, indigenous peoples possess their own locally specific systems of jurisprudence with respect to classification of knowledge, proper procedures for acquiring and sharing knowledge, and the nature of the rights and responsibilities that are attached to possessing knowledge. Some categories of knowledge may be attached to individual specialists, and other categories of knowledge to families, clans or the tribe... The complexity of local laws governing the distribution of knowledge has important political implications, because no one, and no family or clan, can possess sufficient knowledge to act alone. Decision-making requires sharing of knowledge, hence a balancing of all interests, including the concerns of non-humans."¹⁹
24. As is the case with the formal laws of nations, including those of developed countries, these customary legal systems reflect principles that are central to a community's existence and self-identification. Some of these principles are surprisingly common across communities, regions and continents, including:
 - Cooperation to achieve both communal and individual objectives;
 - Family bonding and cross-generational communication, including links with ancestors;
 - Concern for the well-being of future generations;
 - Local-scale self-sufficiency, and reliance on locally available natural resources;
 - Rights to lands, territories and resources which tend to be collective and inalienable, often based on temporary rights of use rather than on exclusive property, as opposed to individual and alienable; and
 - Restraint in resource exploitation and respect for nature, especially for sacred sites.

¹⁹ Barsh, R., (1999), "Indigenous Knowledge and Biodiversity" in UNEP, *Cultural and Spiritual Values of Biodiversity*, Nairobi, p. 73.

25. As much as these common principles, as well as others more particular to each community, are legal in nature, the character of most traditional societies means that they also have a strong spiritual aspect. Although the precise iteration of this spirituality varies greatly, they have a strong thread of commonality in the belief that man is a custodian and temporary user of land and nature, rather than their master. This philosophy is clearly reflected in the Native American saying that “we do not inherit the earth from our parents; we only borrow it from our children”. The idea of custodianship should not be taken to suggest that land and nature are still, ultimately, commodities in the sense of western philosophies. Rather, it lies at the heart of collective and usufructuary rights and not exclusive ownership. Individuals and families may hold lands, resources or knowledge for their own use, but this possession is, more often than not, subject to active use and recognition by the community at large and does not involve rights that are alienable, either to outsiders or in many cases even one’s descendants, at the expense of the community.²⁰
26. To question or undermine the integrity of the practices and beliefs surrounding genetic resources, traditional knowledge or folklore is, therefore, to question or undermine the mechanism by which a society governs the relationships between its members and its relationships with the outside world. Highlighting the essential nature of the integrity of traditional systems is not to suggest that they are incapable of finding a meeting point with western approaches. This knowledge system and its corresponding norms and rules, as those of more western-oriented societies, are not static, but develop according to circumstances and needs. The meeting point, however, must be found through negotiation and not through imposition, or any other form of duress, if traditional societies are to remain intact.

III. OVERVIEW OF DISCUSSIONS IN DIFFERENT FORA

27. An increasing number of organisations and institutions, including the United Nations (U.N.) and its agencies are examining the nature and intricacies of traditional knowledge and are seeking the best approaches to solve the emergent, but often thorny, issues surrounding it. The work in different fora, however, far from facilitating the process and providing better solutions, has raised new concerns, particularly in light of the lack of significant progress in the actual implementation of legal regimes that provide the needed recognition and protection for traditional knowledge, indigenous and local community rights related to genetic resources and folklore.²¹
28. Consultations are currently taking place at WIPO through the IGC, at the Convention on Biological Diversity (CBD), FAO, and the World Trade Organization (WTO), among others. These different processes are not always mutually supportive and, as mentioned, more often than not they have been used to hinder rather than promote each other. In addition, most of these processes have been characterised by a palpable disconnection with the issues of concern at a local level. In other words, there has been minimal involvement of the local and indigenous peoples themselves in both the consultative and decision-making processes. Notwithstanding, the effective participation of all major stakeholders remains essential to arriving at resolutions that are generally acceptable. Thus, there is a fundamental need to foster appropriate measures that will enhance the full participation of local communities and

²⁰ Duffield, R., (1999), “Rights, Resources and Responses” in UNEP, idem, pp. 503-547.

²¹ Nnadozie, K., (2001), “Access to Genetic Resources and Intellectual Property Rights: Regulatory and Policy Framework in Nigeria”, in *IP in Biodiversity and Agriculture: Perspectives on Intellectual Property*, Drahos, P. and Blakeney, M., eds., Sweet & Maxwell, London.

indigenous peoples in the relevant processes, including the provision of adequate financial support.

29. The analysis of developments in these different fora is key to adequately reviewing the work of the IGC and determining potential opportunities for developing countries to move towards developing an appropriate framework for these issues.

III.1 The Convention on Biological Diversity

30. The CBD aims to secure the conservation and sustainable use of biological diversity and one of its objectives is thus to ensure the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.²² On the basis that states have sovereign rights over their natural resources, the CBD recognizes the right of states to regulate access to resources such as genetic material and establishes certain conditions that should be complied with. Access, for instance, where granted, must be on mutually agreed terms and subject to prior informed consent. Moreover, the results of any benefit arising from commercial or other use of these resources must be shared on mutually agreed terms and as fairly and equitably as possible.²³ A major achievement of the sixth Conference of the Parties (COP) of the CBD was the adoption of the Bonn guidelines on access to genetic resources and the fair and equitable sharing of the benefits arising from their utilization.²⁴ These voluntary guidelines are considered a first step of the evolutionary process of implementing the access to genetic resources and benefit-sharing provisions and are meant to assist Parties not only in developing an overall access and benefit-sharing strategy but, specifically, in establishing legislative, administrative or policy measures on access and benefit-sharing.
31. Traditional knowledge was certainly one of the critical issues for the developing countries during the negotiation of the CBD and has so been since its adoption. The CBD specifically recognises indigenous and local communities as a source of knowledge and practices of relevance to the conservation of biodiversity. Article 8(j) calls for the promotion of the wider recognition, application, and protection of the “knowledge, innovations and practices of indigenous and local communities ... for the conservation and sustainable use of biological diversity ... with the approval and involvement of the holders of such knowledge, innovations and practices” and further stipulates that “the equitable sharing of benefits arising from the utilization of such knowledge, innovations and practices” should be encouraged. Therefore, no discussion of access and benefit sharing with respect to genetic resources is complete in this context, or in others for that matter, without due consideration of associated traditional knowledge that, most times, is actually the most important and beneficial component to the user. However, fashioning and agreeing on appropriate mechanisms for accessing genetic resources and related traditional knowledge as well as sharing benefits arising from their use has, undoubtedly, been an exceptionally challenging process.
32. The critical linkage between access to genetic resources and traditional knowledge was addressed early on in the CBD process. During its third session, the COP, in paragraph 7 of Decision III/14, decided that an inter-sessional process should be established to advance further work on the implementation of Article 8(j) and related provisions with a view to producing a report for consideration at the fourth meeting of the COP.²⁵ In Decision III/15, it

²² CBD, Article 1.

²³ CBD, Article 15.

²⁴ Decision VI/24.

²⁵ The Workshop on Traditional Knowledge and Biological Diversity was subsequently convened in accordance with para. 9 of decision III/14 of the COP, in Madrid, from 24 to 28 November 1997, at the invitation of the Government of Spain. See UNEP/CBD/TKBD/1/3 for the report at www.biodiv.org.

particularly noted that the implementation of Article 15 of the CBD is closely linked to that of other Articles, such as 8(j). Given these connections, it is important that Article 8(j) is implemented in conjunction with Article 15 of the Convention.

33. At its fourth session, the COP resolved, by decision IV/9, that an ad hoc open-ended inter-sessional working group be established to address the implementation of Article 8(j) and related provisions of the Convention. The working group reports directly to the COP while also providing advice to other subsidiary bodies. The Working Group has been instrumental to the advancement of the work on Article 8(j), making substantial input to the CBD process and decisions on the subject. It has also made sure that due consideration is given to the provisions of the Article in every other aspect of the Convention's implementation, especially the access and benefit sharing provisions.

III.2 Food and Agriculture Organization

34. The FAO Conference adopted the ITPGR, in November 2001. The principal objectives of the Treaty are "the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of benefits derived from their use, in harmony with the CBD, for sustainable agriculture and food security". While marking a further key step in the evolution of international frameworks for access to genetic resources and benefit sharing, the ITPGR certainly adds a new dimension to the chequered international processes that developing countries have to contend with.
35. The Treaty provides for a multilateral approach to access and benefit-sharing, in which sovereign rights of states over their own genetic resources are recognized.²⁶ Moreover, parties agreed, in the exercise of these rights, to establish an open multilateral system of exchange in the form of a Multilateral System of Access and Benefit-sharing (MLS). The MLS will include the plant genetic resources for food and agriculture (PGRFA) listed under Annex 1 of the Treaty and which are under the management and control of contracting parties and in the public domain. The MLS will provide for facilitated access in accordance with certain conditions relating to benefit sharing especially where intellectual property rights (IPRs) arise in respect of products arising from materials obtained from the system. Benefit sharing is achieved through mechanisms of information exchange, access to and transfer of technology, capacity building, and the sharing of financial benefits arising from commercialization. These conditions will be set out in a standard "material transfer agreement" (MTA) which will be established by the Governing Body.
36. The ITPGR, by recognising Farmers' Rights, highlights the enormous contributions of farmers around the world in conserving and improving plant genetic resources and making them available for use and further development by others.²⁷ Stipulating that the responsibility for realizing farmers' rights rests with national governments, the Treaty requires governments to "take measures to protect and promote Farmers' Rights." Such measures include protecting traditional knowledge relevant to plant genetic resources, promoting Farmers' Rights to share equitably in the benefits arising from the use of genetic resources and to participate in national level decision-making on matters related to their conservation and sustainable use.²⁸

²⁶ This is a major difference with the International Undertaking from which the Treaty evolved. The IU considered genetic resources the common heritage of mankind that should be accessed freely and without any restrictions.

²⁷ Article 9.1

²⁸ Article 9.2

III.3 World Trade Organization

37. The Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, in the absence of progress on the Substantive Patent Law Treaty (SPLT) in WIPO, is the most exhaustive international IPR regime providing for minimum standards of protection for all conventional forms of IPRs. Article 27 of the TRIPS Agreement specifically requires that patents be granted in all fields of technology implying that patents are applicable to technologies (products and processes) using or involving genetic resources as far as they satisfy the standard requirements for patentability.²⁹
38. In other words, while the CBD and the ITPGR have sought to recognise and encourage the recognition and protection of the traditional knowledge systems, albeit to a limited extent, the TRIPS Agreement focuses on private and individual rights and makes no attempt either to recognise or in any form encourage the recognition and protection of traditional knowledge and may in fact promote the unfair appropriation of such knowledge. Nonetheless, Article 27.3(b) allows members to exclude from patent regimes plants, animals, other than micro-organisms, and biological processes for producing plants or animals. It does, however, require countries to provide some form of intellectual property protection for plant varieties “by patents or by an effective sui generis system or by any combination thereof”. How this provision is interpreted and/or applied will invariably influence what choices developing countries have regarding access to, the sustainable use of, trade in, and benefits arising from the use of genetic resources and associated traditional knowledge. In that sense, there is a general agreement, that it gives member states some leeway in fashioning national laws that are consistent with their interests and contribute to their ability to address issues of food and livelihood security for their citizens.
39. The flexibility accorded by the TRIPS Agreement is, therefore, an opportunity for developing countries to formulate a plant variety protection regime that is germane to their needs and conditions. Such flexibility informed, in part, the initiative of the African Union (AU) through its Scientific, Technical and Research Commission to develop a model law with provisions covering breeders’ rights that could serve as a starting point for developing national legislation. There are also a number of other models that are emerging to help developing countries, local communities and indigenous peoples develop the basis of future legal systems to protect the rights to their knowledge and resources.

IV. THE INTERGOVERNMENTAL COMMITTEE ON GENETIC RESOURCES, TRADITIONAL KNOWLEDGE AND FOLKLORE

IV.1 Development of the IGC

40. In 1999, WIPO initiated exploratory work on traditional knowledge and biodiversity “to identify and explore the intellectual property needs and expectations of new beneficiaries, including the holders of indigenous knowledge and innovations”. Following recommendations from the consultation process, Member States of WIPO agreed to create an Intergovernmental Committee to serve as a forum to continue discussions on intellectual property in the context

²⁹ The requirements are that they are new, involve an inventive step and are capable of industrial application.

of three main issues: (i) access to genetic resources and benefit sharing; (ii) protection of traditional knowledge, whether or not associated with those resources; and (iii) the protection of expressions of folklore.

41. These issues were seen as cutting across the conventional branches of intellectual property law and therefore not fitting into existing WIPO bodies, such as the Standing Committee on the Law of Patents (SCP), the Standing Committee on Copyright and Related Rights (SCCR), the Standing Committee on Trademarks, Industrial Designs and Geographical Indications (SCT), and the Standing Committee on Information Technologies (SCIT). Moreover, the IGC was also expected to be more consistent with and complementary to the work being undertaken by other fora.³⁰ As mentioned, this has not always been the case, and though the IGC has cooperated and coordinated with the U.N. Educational and Scientific Organization (UNESCO), the CBD, and the FAO, the need for greater coordination, especially with the ongoing negotiations at the WTO, has been repeatedly stressed by Member States.

IV.2 General Direction Envisioned by Developing Countries

42. The IGC was welcomed by developing countries as a possibility to broadly examine the links between intellectual property and genetic resources, traditional knowledge and folklore and find solutions to satisfy Member States as well as indigenous peoples and local communities.³¹ In particular, developing countries proposed that the IGC should a) examine the extent to and the means by which intellectual property systems could be adapted to improve their protection of genetic resources, traditional knowledge and expressions of folklore; b) look at what new disciplines and provisions needed to be developed for a comprehensive protection of these resources at the international level; c) devise and draft the necessary international instruments and model provisions for national legislative texts; and d) submit its work to the governing bodies of WIPO for discussion and adoption.³²
43. Progress along these lines, however, has thus far been limited. Most developing countries, for instance, and especially the African Group, have consistently taken the position that a mandatory, international sui generis system should be established to protect traditional knowledge, using existing national experiences to identify the subject matter of the sui generis protection, the type of protection desired, and the rights to be granted. During the fourth meeting of the IGC, Venezuela, supported by many developing countries, including the African Group, called for a document to be prepared that contained some more concrete elements of a multilateral sui generis system for traditional knowledge protection. The countries argued that these elements had already been integrated in some national legislation and had been discussed sufficiently enough to move on the discussion on what could actually be included. The IGC, however, did not reach agreement on this point.
44. The Fifth Session of the Committee was supposed to address the future direction of WIPO's work concerning intellectual property and genetic resources, traditional knowledge and folklore (or traditional cultural expressions), and thus provided an opportunity for developing countries to seek a more substantive approach and treatment of the relevant issues. Significant differences between developed and developing countries, however, and a lack of harmony in the approaches of developing countries characterised discussions. The

³⁰ See www.wipo.int/globalissues/igc/index.html.

³¹ See WIPO/GRTKF/IC/1/5, Annex 1, "Traditional knowledge and the need to give it adequate intellectual property protection," submitted by the Group of Countries of Latin America and the Caribbean (GRULAC) to the First Session of the IGC, p. 9.

³² See WIPO/GRTKF/IC/1/10, Annex, "Proposal presented by the African Group to the First Meeting of the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore," p. 6.

Committee was unable to reach agreement on its future mandate for transmission as a recommendation to the WIPO General Assembly.

45. In September/October 2003, at the Thirty Ninth Series of WIPO Assemblies, the work undertaken to date by the IGC was considered and a decision to extend its mandate. In terms of structure the Committee remains as an ad hoc intergovernmental committee with a two-year mandate. The substantive mandate of the Committee was significantly broadened from its original discussion of the issues, the key points being directions that the Committee 'accelerate its work', 'focus on the international dimension of intellectual property, genetic resources, traditional knowledge and folklore' and 'exclude no outcome, including the possible development of an international instrument or instruments in this field'.

IV.3 The Specifics of Issues before the IGC

IV.3.1 Genetic resources

46. As discussed in section II.1, genetic resources provide a range of direct and indirect benefits to both developed and developing countries, suggesting that there is a clear opportunity for the furthering of mutual interests. Direct benefits are derived from the application of genetic resources in fields that are of relevance to a particular country. In developing countries, these benefits are primarily in the agricultural and public health fields. Indirect benefits are those that are captured by the application of genetic resources in fields of relevance to other countries, that is, export related benefits. The most obvious form of benefit here is financial, including fees for access or royalties and milestone payments. However, in kind benefits can also be significant, particularly where these enhance scientific capacity through access to hard and soft technologies, infrastructure support or, sometimes, simply research results and baseline data. As noted elsewhere in this study, the value-adding processes of traditional knowledge and folklore multiply the benefits that developing countries may derive from genetic resources.
47. IPRs, as the dominant mechanism for capturing benefits from intellectual assets, including knowledge regarding the intangible qualities and characteristics of genetic resources, are a major consideration in any developing country strategy to capitalise on the value of their genetic resources.

IV.3.1.1 The Potential and Problems of Conventional IPRs

48. Where one is considering the question of direct benefits, IPRs over genetic resources and their derivatives can play a positive role. The countries or institutions holding these rights have leverage to access technologies or resources held by others that are necessary, or useful, for the delivery of their own product. Technologies or resources frequently sought include access to complementary genetic resources, manufacturing capacity, advanced research or testing facilities and similar assets.
49. In agriculture, this could involve access to the broad range of varieties necessary for the development of an improved variety; in agricultural biotechnology, one may be seeking access to key genetic sequences; and, in modern pharmaceuticals one is most likely to be seeking access to advanced facilities for the testing of efficacy and toxicity. Somewhat ironically, these advantages only exist in a commoditised system, that is, where all the relevant resources or technologies are the subject of proprietary rights, and thus serve to increase transaction costs in a manner disproportionate to their value in facilitating access. The benefits any one country could capture by subjecting its resources to proprietary rights,

however, may, depending on the context, be outweighed by the costs incurred in other countries adopting the same approach.³³

50. The situation with indirect benefits is radically different to that with direct benefits. In this situation, the primary goal is simply to capture as high a level of benefits for one's resource as possible. IPRs can be a central means of increasing the value of benefits on offer but key problems arise for developing countries. For instance, another actor may claim IPRs in crucial markets before the country or community of origin has the opportunity to do so or where that country or community had consciously decided not to seek rights. The problem of misappropriation raises issues regarding the integrity of information in the public domain and the related question of concepts of invention versus discovery, but as mentioned, the value of genetic resources to the citizens of developing countries is not always an economic question, so concern also arises in relation to the abuse of sacred, or otherwise socio-culturally important, information and assets.
51. In this predatory context IPRs may, in some instances, also provide a defence to resource and knowledge holders, particularly where there is sufficient capacity, and ideally also political will, to achieve this objective. However, in the context of genetic resources, developing countries face two basic problems. The first is the neo-colonial dilemma of developing countries as providers of raw materials and consumers of the value-added, processed, products manufactured in developed countries: a situation that results in a net transfer of capital from developing to developed countries and perpetuates inequalities between regions. This situation means that developing countries only have jurisdiction over one part of the genetic resources process. The second problem is that of capacity, particularly in terms of the ability to optimise the utility of existing rights.

IV.3.1.2 Requests and Proposals in the IGC

52. From its conception the IGC has fairly clearly identified the potential positive and negative roles of intellectual property rights in relation to genetic resources. Document WIPO/GRTKF/IC/1/3, in its section IV.A, identified four key areas for consideration: contractual agreements; legislative, administrative and policy measures to regulate access; multilateral systems; and, the protection of biotechnological inventions. The focus of discussion in the various sessions has been on two of these aspects: contractual agreements and legislative, administrative and policy measures to regulate access.

IV.3.1.2.1 Contractual Agreements

53. Activities in the area of contractual agreements have primarily assisted in capacity building and to address the problem of the ability of developing countries to maximize the value of their options under existing systems. The development of the online database is extremely useful in this regard as scientists, lawyers and policy makers in developing countries have

³³ This is particularly true in the case of agriculture, where one is likely to be seeking access to a wide range of varieties and wild relatives from a number of countries. This problem is the basis of the approach taken by the FAO International Treaty on Plant Genetic Resources for Food and Agriculture in establishing a multilateral system where all members have free access to each other's resources subject to broad conditions that obviate the need for case-by-case negotiation. Essentially it is a system of pooling resources to mutual benefit. The case of pharmaceuticals, industrially useful organisms, and even with biologically-based agricultural inputs, is somewhat different from that of agriculture, primarily due to the fact that one is dealing with a specific resource that may have a high individual value. The cost-benefit ratio between the transaction costs of seeking access to what one needs versus the value of what one has to offer is far more likely to be positive than in the case of the relatively low value of individual agriculturally useful resources. However, where one is looking at genetic resource applications that are of interest to the country of origin the general situation may still be one where the financial and technological disadvantages of developing countries mean that they will suffer a net loss in a proprietary system.

largely had to depend on personal relationships and chance to locate such precedents. However, in the absence of supporting activities, the database could be as dangerous as it is useful, since understanding the nature and implications of the particular examples is at least as important as having access to the precise text. Document WIPO/GRTKF/IC/5/9 begins to address this problem and discussion of these issues in the IGC allows professionals, policy makers and other stakeholders to interact with key resource people.

54. Notwithstanding, a vital step remains to be taken: the development of guidelines or principles on the intellectual property aspects of licensing access to genetic resources. This would not be an unprecedented measure as industrial property legislation of many countries already includes guidelines, or minimum standards, for licensing practices. The United States, for instance, even has legislation on user measures in licensing, that is, limiting the nature of licensing provisions that its citizens may legally impose on those of other countries, however poor or problematic its implementation. In the absence of some form of guidelines or principles, ideally suggesting minimum standards, it is unlikely that the IGC's work on contractual agreements will reach its full potential. The information will be unlikely to be sufficiently direct for wide adoption in developing countries and the lack of clarity will limit its value in moral suasion over developed country genetic resource consumers.
55. The IGC's discussion of contractual approaches, however, mirrors that of some other fora in that it assumes the relevance of these approaches. While contractual agreements may be useful, though, they also have clear limitations, such as not being easily enforceable. Their appropriateness in different circumstances, therefore, needs to be considered as a prerequisite for discussion of the details of their implementation in the context of the development and implementation of sui generis regimes in the CBD, FAO, the TRIPS Agreement and WIPO.

IV.3.1.2.2 Administrative, Legislative and Policy Measures

56. The IGC's discussions and activities in the area of administrative, legislative and policy measures relating to genetic resources have focused on the issue of declaration of origin requirements, and the related issue of user measures where genetic resource-using countries recognise, and require compliance with, the regulatory regimes of resource-providing countries. Substantial progress has been made on the question of declaration of origin, which seems to be reaching the point of universal acceptance, even if not on the details of its implementation. Questions such as whether the requirement for a declaration of origin would be a condition for the grant of a patent, would provide grounds for a civil action for damages or would be purely for information purposes in terms of the searching of prior art are in fact far from resolved. The utility of a declaration of origin requirement for developing countries will largely depend on the eventual answers to these unresolved issues.
57. The primary utility of the declaration of origin requirement is that it may address the problem of the misappropriation of genetic resources, whether this is of economic or socio-cultural concern to the country of origin. A requirement for a declaration of origin as a condition of the grant of a patent, as is proposed by the African Group's proposed text for Article 29 of the TRIPS Agreement, would largely address this problem while being consistent with the widely applied legal principle of unjust enrichment. The one point of concern, however, is what would happen in the event that a patent application was refused on the grounds of failing to meet declaration of origin requirements? The question of whether the information contained in the application would enter the public domain, would be considered to be the property of the country or community of origin, or would be treated in some other manner could have profound implications.
58. If the requirement for a declaration of origin were not considered as a condition for the grant of a patent but rather as a basis for a civil claim or as provided for information purposes, its inclusion in international standards would only be a minor step forward from the current

situation. Developing countries and their local communities would still need to possess the capacity and resources to mount a legal challenge in a foreign jurisdiction, quite apart from the capacity to monitor declarations of origin in patent applications around the world. Notwithstanding, even in this situation the declaration of origin may have some positive effects. First, a declaration would still be useful as the basis for a more accurate prior art search, insofar as the major patent offices allowed for broader prior art searches.³⁴ However, in the absence of progress on other regulatory issues, such as invention versus discovery, it is not clear that more effective prior art searches would address all the perceived problems of misappropriation. Second, the clear identification of cases of misappropriation, particularly where these are multiple and flagrant cases may have an impact on the practices of patent offices and governments, particularly in developed countries. Although this approach has had mixed results to date, the power of moral suasion is unquestionable.

59. Developing countries are using the progress made on declaration of origin requirements in the IGC as a basis for pushing for the inclusion of such a requirement in the TRIPS Agreement, particularly in light of the fact that the European Union (EU) is indicating its willingness to consider such a proposal. While adopting such a strategy would seem logical, there are some issues that must be considered. The first is that if one succeeded in having the requirement included in the TRIPS Agreement, would it be as a condition for the granting of a patent or something less? If it were to be as something less, would there be sufficient room to interpret it as a condition at a later date, or the political option of renegotiating it to be such a condition in the foreseeable future? The second issue is that the inclusion of the requirement in the TRIPS Agreement should not mean that the issue is taken away from WIPO. Even if the requirement is established by WTO Members, many of the details of its implementation may be left unclear. The IGC, given its technical focus and its consideration of the wider issues surrounding genetic resources, would be useful as a forum to elaborate further the particulars and implications of a declaration of origin requirement in a more flexible context than the TRIPS Council. Documents WIPO/GRTKF/IC/4/11 and WIPO/GRTKF/IC/5/11 could provide a basis for further development of the declaration of origin in the WIPO framework. Developed countries are likely to be hostile to such a move, as it would possibly narrow loopholes and overcome uncertainties regarding its use, but if presented as the only alternative to the inclusion of the declaration of origin in Article 29 of the TRIPS Agreement, they are likely to find it more attractive.
60. The current focus on the declaration of origin requirement should not, however, detract from some of the wider issues that must be addressed to comprehensively deal with the problems in the relationship between IPRs and genetic resources. Moreover, actual progress on the question of user measures would probably only take place in the context of broader developments. Much of the problem with the misappropriation of genetic resources, for instance, relates to the administrative practices of patent offices that allow for overly broad patents and, often, also ones that have questionable claims to innovation as opposed to 'sweat of the brow'. Inevitably, this type of debate is thus likely to involve controversy over issues relating to the distinction between invention and discovery and the associated question of the patenting of naturally occurring organisms, or life forms generally.

IV.3.2 Traditional knowledge

61. Traditional knowledge, as genetic resources, provides a range of direct and indirect benefits to both developed and developing countries and thus also suggests that there is a clear opportunity for the furthering of mutual interests.

³⁴ Currently, a number of patent offices do not make use of many of the resources that are already available to conduct prior art searches.

62. Key distinctions between the issues surrounding genetic resources and traditional knowledge, however, exist. First, while they are often discussed jointly, the two are not synonymous. Many valuable genetic resources, micro-organisms for mineral ore smelting or pollution control for instance, may not have associated traditional knowledge. Traditional knowledge and genetic resources do not thus fully overlap, although the fields in which traditional knowledge is significant are, in most cases, a subset of those to which genetic resources are relevant. In addition, in the context of traditional and indigenous communities, distinctions are often an artificial construct: for them knowledge is a continuum that should not be broken into pieces.
63. Second, due to the nature of genetic resources, the state can generally manage them in the way it deems best for its citizens (though issues may arise relating to where a particular resource is found). In contrast, traditional knowledge always involves the interests and concerns of particular people: the knowledge holders and their communities. Thus, while governments may have a relatively free-hand to approach the question of genetic resources, they have the concerns and aspirations of particular groups to consider in the management of traditional knowledge.
64. The final distinction between genetic resources and traditional knowledge relates to their consideration according to the traditions of orthodox IPRs. In comparison to 'raw' genetic resources, traditional knowledge represents a value-adding process in the same way that modern scientific research does. Communities may have some right to claim benefits associated with genetic resources on the basis that they have been the custodians of these resources but the value of these benefits should, in an IPRs context, be significantly greater where traditional knowledge identifies and uses properties of genetic resources.

IV.3.2.1 The potential and problems of conventional IPRs

65. Two of the issues raised by the relationship between traditional knowledge and conventional IPRs are fairly accurately identified in the issues placed before the IGC in paragraph 63 of document WIPO/GRTKF/IC/1/3:
 - the availability of intellectual property protection for traditional knowledge holders; and
 - the problem of misappropriation.
66. The problem of availability arises because the conditions for the grant of conventional IPRs, along with the procedures for obtaining and defending them, are inaccessible or irrelevant for the large majority of traditional knowledge holders and their communities. The problem of misappropriation, on the other hand, occurs because, while these communities do not have access to IPRs, others are able to make relatively minor, or no, changes to traditional knowledge and claim rights over it. Partly, the difficulty appears because traditional knowledge is not readily accessible to patent examiners or not directly being considered in the prior art searches. However, the problem also relates to the definition of inventive step: how far from traditional knowledge does something have to be for it to be patentable?
67. A third issue arising from the relationship between traditional knowledge and IPRs is not as clearly identified in document WIPO/GRTKF/IC/1/3, but it appears in a number of the technical documents related to misappropriation. This is the matter of the cultural value of traditional knowledge. As is the case with genetic resources, when traditional knowledge becomes the subject of conventional IPRs, the misappropriation that most offends the knowledge holding community may not be economic but cultural. Many traditional communities, as explained above, apply the principle of access to resources through user rights, rather than allowing for

exclusive monopolies. While in a given society this may be justified on the basis of practicality, it is more often tied into a belief system and world view.

IV.3.2.2 Requests and proposals in the IGC

68. The WIPO Secretariat broke down the two basic problems of the availability of intellectual property protection and misappropriation to address four separate components. The first (terminological and conceptual issues) relates to both of the issues presented as does, to a large extent, the second (standards concerning the availability, scope and use of intellectual property rights in traditional knowledge) and fourth (enforcement of rights in traditional knowledge). The third (certain criteria for the application of technical elements of standards, including legal criteria for the definition of prior art and administrative and procedural issues related to examination of patent applications) relates almost exclusively to the problem of misappropriation.
69. During the course of the IGC process and the discussions of these components, several key elements have emerged. The examination of defensive measures, for one, focuses on the relationship between the existing IPRs framework and traditional knowledge. The elaboration of the components of a sui generis system, on the other hand, looks beyond conventional IPRs for the protection of traditional knowledge.

IV.3.2.2.1 Defensive protection and the traditional knowledge documentation toolkit

70. Document WIPO/GRTKF/IC/5/6 is a useful survey of the options available for the defensive protection of traditional knowledge within the existing IPRs system. The document interestingly recognises that the existing IPR framework may need changes for defensive protection concerns to be addressed. It goes as far as to consider possible changes to the Patent Cooperation Treaty (PCT) and the International Patent Classification (IPC). The PCT and IPC, however, are procedural and many of the issues relating to defensive protection need substantive solutions. The main international instrument currently dealing with substantive patent questions is the TRIPS Agreement, outside the scope of WIPO and thus the IGC. Document WIPO/GRTKF/IC/5/6, though, does address this point in paragraph 80 by suggesting that a solution, at least in the context of legal criteria for prior art, may be considered within the scope of the harmonisation of substantive patent law.
71. Given the concerns that a number of countries have already raised regarding in the SPLT negotiations, taking up such a suggestion could be extremely risky. It could be a way to add momentum to the SPLT negotiations without increasing the likelihood that these would provide a developing country-friendly outcome. An alternative approach may be found in the idea of a 'norm-setting' role for the IGC. The body could be given a mandate to build upon the discussion and proposals contained in document WIPO/GRTKF/IC/5/6 and establish guidelines for the consideration of defensive protection issues in the patent laws of both traditional knowledge providing and user countries. The context of a norm-setting body would avoid the risk, implicit in the SPLT, of entrenching standards that do not address the concerns of developing countries while allowing for a more evolutionary process that can be adapted as knowledge regarding traditional knowledge develops. The Traditional Knowledge Documentation Toolkit, one of the defensive measures considered in this document is, to some degree, already heading in this direction. The toolkit provides suggested approaches that could be adopted to address certain problems: exactly what is done by non-binding norm-setting bodies.

IV.3.2.2.2 Sui generis Traditional Knowledge protection

72. In document WIPO/GRTKF/IC/5/8 the WIPO Secretariat provided an overview of the work of the IGC on examining options for the sui generis protection of traditional knowledge. It should be recognised from the outset that the idea of, and motivation for, sui generis protection has two quite distinct aspects, the two of them originating with both traditional communities and developing country governments to varying degrees.
73. The first aspect is the concern that a more specific regime within the existing IPRs system is necessary in light of the context and nature of traditional knowledge to achieve equal levels of protection. The argument is largely about equity: if one group of inventors (modern scientists, etc.) has access to a protection regime so should another (traditional knowledge holders and their communities). Addressing this concern becomes then a somewhat mechanical process, beginning with an examination of the particular characteristics of traditional knowledge not accommodated by the existing IPRs regime and continuing with the proposal of mechanisms that suit these characteristics. Of course, this is easy to say and far harder to achieve. A fundamental consideration for these mechanisms is their practicability and relevance for traditional communities and though customary law may provide some assistance, in the end it rarely recognises absolute exclusionary rights in the way that orthodox IPRs do. Therefore, while document WIPO/GRTKF/IC/5/8 does represent substantial progress, it provides questions more than answers. As a consequence, it would seem improbable that within the next two to three years the IGC could negotiate and adopt, or probably even develop a draft for, a legally binding agreement on the protection of traditional knowledge that addresses the inapplicable nature of the existing framework. What could be achieved during such a period, if sufficient resources were made available, would be a focused analysis on the different elements considered in part VII, and listed in paragraph 117, of document WIPO/GRTKF/IC/5/8. However, for this to be worthwhile, it would have to involve considerable analysis of the nature of the problems on the ground drawing upon the activities in the various fora.
74. The second aspect of the idea of, and motivation for, sui generis protection is a more fundamental problem in that it questions the appropriateness of the existing IPRs system for traditional knowledge. This aspect revolves around the concern that IPRs focus on monopolies and reward, or absolute exclusionary rights, rather than the more open 'access and use according to need' principle of many traditional communities. To address this problem one cannot simply look at the deficiencies of the existing system and create a list of questions that need to be answered, rather one needs to start at the very beginning and clearly identify the desired results of a system. Consequently, clauses (i) and (ii) of paragraph 117 of document WIPO/GRTKF/IC/5/8, regarding scope and objectives, may be relevant as elements to be considered but clauses (iii) through to (vii), which focus almost exclusively on equity and applicability concerns, are not. To identify alternatives for these clauses that do correspond to the situation, perhaps the only approach is to analyze further how customary laws cater for relatively open access while also allowing, in many cases, for some form of limited individual or collective control.
75. In sum, document WIPO/GRTKF/IC/5/8 represents a very good starting point but only really considers the equity and applicability concerns regarding traditional knowledge and IPRs. On the other hand, it fails to consider the lack of appropriateness of the existing system in light of the different objectives often embedded in traditional knowledge systems. Paragraph 147, in fact, focuses on the equity and applicability issues and suggests that other issues be addressed elsewhere. Notwithstanding, WIPO is not the "World Intellectual Property Rights Organisation" and thus it is fully within its mandate to consider the development of frameworks that follow different approaches from those it has historically considered.

IV.3.3 Folklore

IV.3.3.1 The potential and problems of conventional IPRs

76. Two basic problems have been recognised by the IGC in the protection of folklore under the conventional IPRs system: the need to improve protection for tangible expressions of folklore, particularly handicrafts and the need to internationalise the system of protection.³⁵ Although the language used is different, the situation is generally almost identical to that of traditional knowledge: there are problems of the applicability of conventional IPRs to the nature and situation of folklore; and, there are problems relating to misappropriation.
77. Also as is the case with traditional knowledge generally, the problem of applicability is primarily a technical one where the nature of folklore often precludes it from effective protection under conventional copyright, patent and other IPRs mechanisms. This is usually due to the inapplicability of the conditions for the grant of such rights, such as novelty. The problems with misappropriation are similar as well, involving both economic and cultural concerns.

IV.3.3.2 Requests and Proposals in the IGC

78. Since the beginning of the IGC, the WIPO Secretariat focused the question of expressions of folklore within the context of the UNESCO-WIPO Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions (1982).
79. The significance of the Model Provisions is that while they are believed to constitute a form of 'intellectual property-type protection',³⁶ they do have some elements that are quite distinct from the conventional IPRs system.³⁷ Of particular importance are those relating to offences and sanctions, which, while vague, clearly suggest, and in some cases require, offences and sanctions that are not tied to the normal reward for innovation concept but, rather, relate strongly to cultural and moral rights. This is significant not only in terms of the folklore issues before the IGC, but also more generally in relation to traditional knowledge.
80. In paragraph 89, document WIPO/GRTKF/IC/1/3 highlights the relatively non-controversial point, that folklore is a subset of traditional knowledge. Therefore, if the protection of folklore can consider cultural and moral rights then so can the protection of traditional knowledge. As previously discussed, it is crucial that WIPO take such a broad approach and examines different options rather than focusing purely on adaptations of the conventional system.
81. Paragraphs 101, 105 and 106 of document WIPO/GRTKF/IC/1/3 expanded upon proposed activities relating to the perceived problems in the protection of folklore. The basic proposal was for the updating of the WIPO-UNESCO Model Provisions, perhaps even through developing them into an international sui generis legal regime. Specifically, the document proposed to improve the protection available for handicrafts through an examination of the options for protecting their style, production methods and other characteristics against unauthorised copying, use or commercial exploitation. In the same vein, the possibility of adapting industrial design protection regimes, through a relaxation of novelty standards, was proposed.

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³⁵ Document WIPO/GRTKF/IC/1/3.

³⁶ *Idem*, para. 89.

³⁷ *Supra* note 35, sub section IV.C.1.

82. However, while developing countries have continued raising the matter of updating the Model Provisions and developing an international sui generis regime, the IGC has not moved forward on the issue. Document WIPO/GRTKF/IC/5/12, for instance, which provides some details regarding the approaches taken by the IGC on the protection of folklore, highlights primarily the development of a practical guide on the protection of folklore and other issues relating to collections, databases and registers of folklore.
83. The nature of folklore as one of the most obviously culturally significant elements of traditional knowledge and the character of the efforts by a number of countries and regions in the field have determined that work of the IGC on this issue is more all-encompassing at times than that regarding genetic resources and traditional knowledge generally. However, despite the significant value of document WIPO/GRTKF/IC/5/3, which describes the key outputs of the IGC regarding the protection of folklore and is meant to serve as a basis for further work, it remains only a resource and does not address the question of an international framework, whether based on the WIPO-UNESCO Model Provisions or otherwise.
84. Unlike the situation with traditional knowledge generally, a substantial amount of information and experience has been gained regarding the protection of folklore over a number of years. Document WIPO/GRTKF/IC/5/3 clearly reflects this body of knowledge and raises the question: why is the IGC not moving forward to develop this foundation into an international framework for the protection of folklore, as iterated in its original mandate? The only reason for hesitation might be concern about the advisability of moving forward on the protection of folklore without simultaneously advancing on a framework for the protection of traditional knowledge generally, a parallel approach that may ensure coherent principles and structures.

V. RECOMMENDATIONS

85. In the current international debate on the relationship between genetic resources and IPRs, unlike in many other controversial issues, the problems are fairly clear and the potential solutions are also relatively well known. The next challenge is clearly that of negotiating these solutions into a tangible existence. In that sense, an appropriate short-term goal may be elaborating the declaration of origin requirement. As experience with national regulatory regimes develops, the mutual recognition and enforcement of such systems at the international level would be a major advance.
86. The situation with traditional knowledge is more complex. Currently, even the objectives of a regime for the protection of traditional knowledge are not clear. Is their purpose to enable traditional communities to capitalise on and financially profit from their knowledge? Or should they endeavour to respect the practices and beliefs of traditional communities? The truth is probably somewhere in between, with varying emphasis on one or the other depending on the community concerned. Such lack of clarity, particularly when compounded with the ambiguity that even the scope of the term 'traditional knowledge' has for most governments, reveals that it is probably too early to consider negotiating a binding sui generis instrument for the protection of traditional knowledge. A mandate to further explore objectives, parameters and modalities that could be relevant and accessible to traditional communities, with a view to the development and adoption of a binding instrument, should be proposed. Nonetheless, the inadvisability of developing and adopting such an instrument immediately should not mean that the establishment of norms of defensive protection within the context of the existing IPRs framework should be ignored. Quite the contrary, this should be pursued as quickly as possible, if only to serve as an interim approach pending the development of a sui generis

protection regime. This should be feasible since, as is the case with genetic resources, the issues involved are fairly clear: the only deficiency so far has been the political compromise to put the solutions in place.

87. Regarding the protection of folklore, unlike in regard to traditional knowledge generally, the problems are relatively well iterated, the objectives of the various interested parties are relatively clear and there are already a number of options on the table. Moreover, folklore, while a subset of traditional knowledge generally, does exist to some degree, as an independent body of knowledge. Thus, the development of a specific protection regime is a useful possibility. However, given that many of the issues involved are similar to those affecting traditional knowledge generally, countries may wish to consider the advisability of progressing with folklore without simultaneously considering the broader picture of traditional knowledge. The development of a regime for the protection of folklore should not necessarily be 'put on hold.' Rather, countries should either develop a regime that covers both traditional knowledge and folklore or to develop separate regimes in parallel, thereby ensuring compatibility of approach and content.
88. To negotiate and elaborate these measures regarding the protection of rights relating to genetic resources, traditional knowledge and folklore, an appropriate forum is necessary. Of the fora analyzing these issues at present, the FAO would be unlikely to agree to take on some of the more controversial aspects of IPRs unless under significant pressure to do so. Moreover, the FAO Treaty is too narrow in terms of its mandate and the Secretariat lacks expertise in IPRs, as well as in the non-agricultural applications of genetic resources, traditional knowledge and folklore. The CBD, on the other hand, has a broader mandate, although still theoretically limited to conservation issues, but still lacks significant expertise in IPRs and has problems in terms of enforceability. The TRIPS Council, in turn, has more direct expertise and capacity for enforcement. The nature of the WTO system, however, particularly its focus on commercial activity to the exclusion of socio-cultural and other concerns, would not necessarily provide a conducive forum for the discussion of community concerns and interests.
89. In other words, WIPO is the only existing forum that has the mandate and capacity to bring the IPRs issues arising in the CBD, FAO and WTO together and to address them in a comprehensive and holistic manner. Nonetheless, the IGC, in its current form, is clearly inadequate to move much beyond the information gathering, capacity building and initial analysis activities that it has undertaken thus far. In particular, it would not be appropriate to establish substantive norms and standards addressing the relationship between IPRs and genetic resources. The logical next step in an emerging international framework that already encompasses the Bonn Guidelines on Access and Benefit Sharing and the ITPGR.
90. The decision by WIPO to extend the mandate of the IGC in its current form thus implicitly limits the nature of its achievements in the next two years. As is amply demonstrated by binding and non-binding norm and standard setting bodies in *inter alia* WIPO, FAO and the WHO, some sense of permanency, or at least likelihood of continuity, is required. In terms of a possible international agreement(s), the IGC represents an *ad hoc* negotiating body and such bodies do not normally have a fixed time frame except in the aspirational sense.
91. These problems also derive, in large part, from the ambiguity of the extended mandate for the IGC. Of its three key elements, only that of 'focusing on the international dimension' comes close to hinting at specifics, although it should be noted that there is no indication as to what this 'international dimension' might consist of in the view of different members. 'Accelerating' its work is not really a part of the mandate at all, particularly in the absence of a clear understanding of what that work is. A mandate that 'excludes no outcome' is also potentially problematic, as it doesn't point to what is specifically included.

92. If the extended mandate of the IGC is to produce any tangible results for developing countries several factors need to be considered in the immediate, short- to medium, and longer-term.

93. Immediately:

- Countries with specific interests and the potential to influence larger groups need to collectively decide whether the IGC and its outcomes are, in and of themselves, potentially important to them or whether their importance lies exclusively in their relationship to other fora, such as the WIPO patent committees and the TRIPS Council.
- If it is determined that the IGC and its outcomes are potentially important in and of themselves, clear and specific goals for the extended mandate of the IGC must be identified as soon as possible and robustly defended at the session planned for March 2004. The ambiguity of the extended mandate means that a considerable amount of time could be expended simply debating what the work plan is, something that will be particularly true in the absence of unity of purpose on the part of the majority of developing country members.

94. Short- to medium-term:

- Key objectives and proposals need to be identified early. If the goal is, for example, an international agreement on traditional knowledge or a standard setting body for the treatment of genetic resources, this needs to be clearly stated and accepted as early as possible to allow for meaningful elaboration.
- The substance of proposals and objectives needs to be developed and put forward for consideration early in the life of the extended mandate as a means of focusing discussion. During the previous mandate of the IGC, the limited availability of specific proposals for the objectives and mechanisms to be contained in an international instrument for the protection of traditional knowledge, and well thought out justifications for them, meant that discussions, while useful, focused on background questions rather than on tangible advances.
- Where key objectives and proposals are identified, countries should avoid excessive consideration of background documents and information but focus, rather, on the specific iteration of these objectives and proposals and how they might function.

95. Longer-term:

- It is unlikely that any draft agreement on intellectual property, genetic resources, traditional knowledge and folklore can be negotiated within the next two years -- the International Treaty on Plant Genetic Resources for Food and Agriculture, with a far more limited scope, took eight.
- If the main objectives and principles of the text of an agreement can be broadly adopted, however, it is likely that there will be sufficient momentum to carry negotiations to their conclusion.
- Thus, if a norm or standard setting body is still an objective of some members of the IGC, the current extended mandate should provide a reasonable period within which to establish its modalities and scope with a view to it commencing activities reasonably soon after the expiry of said extended mandate.
- In general terms, two years is too short a period to deal with some of the complexities that may need to be addressed under the mandate of the IGC but it is long enough to establish a specific framework and the basis of substance to be elaborated further.

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