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Lost in Fragmentation: The Traditional Knowledge Debate Revisited

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Abstract

Numerous international institutions now seek to address the problems of misappropriation and disappearance of traditional knowledge. The relevant legal frameworks were developed at different times and motivated by diverse policy goals. As new frameworks continue to emerge, an important question arises as to how the unity of international efforts to protect traditional knowledge can be maintained. This paper scrutinizes the fragmentation of international law in this field, how it came about, and what its implications are for traditional knowledge protection. It argues that much of the confusion surrounding traditional knowledge protection today is attributable to the fragmentation of international law in this area. To reverse the adverse effects of fragmentation, all institutions involved must be conscious of, and collectively work towards, a common goal, however loosely defined that goal might be. National governments must also ensure that their negotiating positions are consistent across all relevant fora.

It was a busy Monday morning in Bangkok. Twenty-two representatives from fourteen public and private agencies gathered to discuss the preliminary findings of the research team tasked with the study of the protection of traditional knowledge (TK) in Thailand.[1] Of the many issues raised by the team, the terminology and the objectives of protection attracted the most heated discussion. While the Ministry of Commerce emphasized the economic advantages of commercializing handicrafts and local products, the Ministry of Culture stressed the need to safeguard Thailand's cultural heritage from loss and deterioration. The Ministry of Agriculture and Cooperatives, on the other hand, highlighted the role of local agricultural knowledge in sustainable development, while the Biodiversity-Based Economy Development

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1. The meeting was convened on 9 January 2012 by a Thai research team working on a project called "The Study of the Situation Concerning the Protection and Promotion of Traditional Knowledge Related to Biological Resources in Thailand", funded by Thailand's Biodiversity-Based Economy Development Office.

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Office spoke of its project on inventorying plants, animals, and micro-organisms, and associated knowledge. In contrast, private sector representatives from Thailand's Fish Sauce Factories' Association were more concerned with the patenting of their manufacturing processes. It quickly became clear that the participants had vastly diverse views as to what constitutes TK, what problems it raises, and how these problems should be addressed. Almost inevitably, the meeting ended with a host of unresolved issues and unanswered questions that were left for the team to take as "guidance" for their future study.

The above situation is by no means unique to Thailand. It epitomizes the challenges posed by the diversity of actors and the divergence of views, not only from national governments but also from international institutions seeking to protect TK.

The failure of the Twenty-Fourth Session of the World Intellectual Property Organization's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (22–26 April 2013, Geneva) to hammer out a compromise text of a draft legal instrument for TK protection, even after more than a decade of intense deliberation, serves as another case in point.[2]

There has been a proliferation of TK-related discussions over the past few decades in various international fora besides the World Intellectual Property Organization (WIPO). They are, *inter alia*, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environmental Programme (UNEP), the Food and Agriculture Organization (FAO), the World Trade Organization (WTO), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Development Programme (UNDP), and other UN human rights bodies, resulting in what is commonly known among international lawyers as the "fragmentation of international law".[3] The international discourse surrounding the protection of traditional cultures is now characterized by a "decentralized and disintegrated set of approaches, in which the issues are subjected to differing policy considerations, cultural and ethical environments, analytical tools, and legal concepts".[4] In this fragmented regulatory landscape, international efforts to protect TK risk becoming incoherent, and ultimately the meaning and purpose of "TK protection" may become lost.

The problems of fragmentation have been widely recognized.[5] Many scholars have called for greater co-ordination of efforts among international fora working

2. While the Committee has made some progress on streamlining the draft text on TK, there remain significant divergences among the negotiators on key issues regarding the protectable subject matter, the beneficiaries of protection, the types of entitlements to be given to the beneficiaries, and the exceptions to such entitlements. The current draft text on TK (as of 26 April 2013) is still riddled with conflicting options and overlapping square brackets. See *The Protection of Traditional Knowledge: Draft Articles (Rev. 2)*, WIPO Doc. WIPO/GRTKF/IC/24/FACILITATORS DOCUMENT REV. 2 (2013).

3. See *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law,* Report of the Study Group of the International Law Commission, finalized by M. KOSKENNIEMI, UN Doc. A/CN.4/L.682 (2006) [*ILC Study Group Report*].

4. *Traditional Knowledge—Operational Terms and Definitions*, WIPO Doc. WIPO/GRTKF/IC/3/9 (2002), para. 15.

5. See e.g. P. DRAHOS, "A Networked Responsive Regulatory Approach to Protecting Traditional Knowledge" in D. GERVAIS, ed., *Intellectual Property, Trade and Development: Strategies to*

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on TK protection.[6] They have also warned government representatives of the inconsistencies in their positions when discussing TK protection across different fora.[7] Yet the implications of fragmentation for TK protection remain largely unexplored. The lack of adequate scholarly attention to the problems of fragmentation is in part due to most writers having highly specialized disciplinary backgrounds. The existing literature on TK is dominated by "experts" in various fields—IP lawyers, human rights advocates, indigenous activists, conservationists, cultural policy experts, and anthropologists—whose views are more or less compartmentalized.[8] The gap in the literature is also at least partially attributable to the fact that there exist voluminous primary and secondary sources on TK, which makes a comprehensive study of TK protection particularly burdensome.

Adopting an interdisciplinary legal perspective, this paper attempts to fill this gap by highlighting the effects of the phenomenon of fragmentation on international efforts to protect TK. The paper is not intended to provide a comprehensive analysis of all existing international legal frameworks for TK protection.[9] Neither is it intended to engage in the ongoing, highly polarized debate over whether, and if so how, existing IP laws should be used to protect TK[10] or whether a *sui generis* regime for TK protection should be devised.[11] Its principal objective is, rather, to explain

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Optimize Economic Development in a TRIPS-Plus Era (Oxford: Oxford University Press, 2007), 385; J. RAZZAQUE and M. SSENYONJO, "Protection of Traditional Knowledge and Human Rights Obligations: The Status of Discussion in International Organisations" (2007) 25 Netherlands Quarterly of Human Rights 401; M.A. GIRSBERGER, "Legal Protection of Traditional Cultural Expressions: A Policy Perspective" in C.B. GRABER and M. BURRI-NENOVA, eds., *Intellectual Property and Traditional Cultural Expressions in a Digital Environment* (Cheltenham: Edward Elgar, 2008), 123.

6. See e.g. Girsberger, *supra* note 5.

7. See e.g. G. DUTFIELD, *Protecting Traditional Knowledge: Pathways to the Future* (Geneva: ICTSD, 2006); C.B. GRABER, "Using Human Rights to Tackle Framentation in the Field of Traditional Cultural Expressions: An Institutional Approach" in Graber and Burri-Nenova, *supra* note 5 at 96.

8. As Coombe observes, "very little of the available scholarship [on TK] is as interdisciplinary in scope as the politics of this dynamic field ideally demands": R.J. COOMBE, "The Expanding Purview of Cultural Properties and Their Politics" (2009) 5 Annual Review of Law and Social Science 393 at 394.

9. For a comprehensive study of existing IP-related international, regional, and national legal frameworks for TK protection, see S. VON LEWINSKI, *Indigenous Heritage and Intellectual Property: Genetic Resources, Traditional Knowledge, and Folklore*, 2nd ed. (Alphen aan den Rijn: Kluwer Law International, 2008).

10. Much has already been written about the interplay between IP and TK. See e.g. M. BLAKENEY, "The Protection of Traditional Knowledge Under Intellectual Property Law" (2000) 22 European Intellectual Property Review 251; D.R. DOWNES, "How Intellectual Property Could be a Tool to Protect Traditional Knowledge" (2000) 25 Columbia Journal of Environmental Law 253; G. DUTFIELD, "TRIPS-Related Aspects of Traditional Knowledge" (2001) 33 Case Western Reserve Journal of International Law 233; D. GERVAIS, "Traditional Knowledge & Intellectual Property: A TRIPS-Compatible Approach" (2005) Michigan State Law Review 137; O.B. AREWA, "TRIPS and Traditional Knowledge: Local Communities, Local Knowledge, and Global Intellectual Property Framework" (2006) 10 Marquette Intellectual Property Law Review 155. For views against protecting TK under IP laws, see M.H. DAVIS, "Some Realism About Indigenism" (2003–2004) 11 Cardozo Journal of International and Comparative Law 815; C. CLIFT, "Is Intellectual Property Protection a Good Idea?" in P. SILLITOE, ed., *Local Science vs. Global Science: Approaches to Indigenous Knowledge in International Development* (Oxford: Berghahn Books, 2007), 191.

11. For discussion of a *sui generis* system for TK protection, see C. ANTONS, "*Sui Generis* Protection for Plant Varieties and Traditional Knowledge in Biodiversity and Agriculture: The International Framework and National Approaches in the Philippines and India" (2010) 6 Indian Journal of Law

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how the fragmentation of law and policies concerning TK protection has come about, how it threatens the attempts to protect TK, and how such a threat could be effectively addressed.

To this end, the paper is structured in two parts. Part I outlines the historical development of TK-related initiatives at the international level from the 1950s until the present, focusing on the ways in which the discourse surrounding TK protection has been shaped by changes in the international social, economic, and political climates. It examines the processes through which the legal landscape for TK protection became fragmented, highlighting in particular the proliferation of international fora involved and the growing density of legal rules concerning TK protection. Part II discusses the challenges associated with this fragmentation, namely terminological confusion, diversity of objectives, multiplicity of beneficiaries, inconsistency in national positions, and governments' selective participation in certain fora. It argues that, while fragmentation poses challenges to the protection of TK, the proliferation of international institutions and their increasing specialization also represent opportunities. To seize such opportunities, however, all institutions involved must be conscious of and actively work towards a common goal, however loosely defined that goal might be. They must also have a better understanding of each other's competences and of their interdependence, so that possible collision of norms can be avoided, and potential areas of collaboration identified.

To keep the analysis of TK protection as comprehensive as possible, the term "traditional knowledge" will be used in its broadest sense (unless otherwise indicated) to cover a wide range of subject matters, including innovations, understandings, skills, and practices, which are generated and maintained by indigenous and local communities in response to their basic physical and cultural needs.[12] Likewise, "TK protection" will be interpreted broadly to include protection against unauthorized use by third parties, preservation from loss, and the promotion of wider use.[13] The term "TK debate" will be used as a conceptual net to capture all issues which are directly or indirectly related to "TK protection".

I. THE ROAD TO FRAGMENTATION: A HISTORICAL OVERVIEW

To properly construe the debate over TK protection today, it is necessary to understand the historical context in which various developments became part of the debate. This section will inquire into how the global effort to protect TK has evolved

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and Technology 89; J.J. OSEITUTU, "A *Sui Generis* Regime for Traditional Knowledge: The Cultural Divide in Intellectual Property Law" (2011) 15 Marquette Intellectual Property Law Review 147.

12. Discussions about how TK should be defined or whether "traditional knowledge" is an appropriate term to be used to refer to knowledge of cultural character are beyond the scope of this paper. This paper uses the term "traditional knowledge" primarily for practical reasons, as it is the term most commonly used among scholars in this field. For a detailed discussion of TK terminology, see WIPO Doc. WIPO/GRTKF/IC/3/9, *supra* note 4.

13. This broad interpretation differs from the one adopted by WIPO, which sees protection only as "the use of IP tools and principles to prevent unauthorized or inappropriate uses of [TK] by third parties": WIPO, *Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions: An Overview*, WIPO Publication No. 933 (2012) at 13.

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over time, starting from the 1950s when the UN began its work on culture and its manifestations in the aftermath of World War II and the period of decolonization that followed. The period under review will be divided into three phases to reflect the changing sociopolitical contexts in which TK-related discussions took place. The first, the 1950s to the 1980s, was the phase when much of the international attention was given to postwar reconstruction of international relations and to addressing the postcolonial concerns of newly independent states. In the 1990s, the focus shifted towards environmental conservation, the rights of indigenous peoples, and the international harmonization of IP laws. The third phase, from the 2000s to the present, witnessed the institutionalization of the TK debate under WIPO and the UN human rights system that coincided with the diversification and proliferation of legal rules concerning TK protection.

A. *1950s–80s: Postwar Reconstruction and Post-Colonialism*

The origin of some aspects of contemporary TK debates can be traced back to the discussions concerning the protection of "cultural property" in the early 1950s. Following the massive destruction of cultural heritage during World War II, UNESCO adopted the Convention for the Protection of Cultural Property in the Event of Armed Conflict (Hague Convention) in 1954.[14] The Hague Convention required its Contracting Parties to "prohibit, prevent and, if necessary, put a stop to any form of theft, pillage or misappropriation of, and any acts of vandalism directed against, cultural property" and to "refrain from requisitioning movable cultural property situated in the territory of another [Contracting Party]" (Article 4(3)). The protection of cultural property was extended beyond the realm of armed conflicts by the 1970 Convention on Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property,[15] which was concluded as a response to the growing incidents of thefts in museums and archaeological sites, particularly in developing countries towards the end of the 1960s.[16] The parties to the Convention agreed, *inter alia*, to prevent importation of illicitly obtained cultural objects and to facilitate their return to the countries of origin (Articles 7, 9, and 13).[17]

Central to the above initiatives was a belief that "cultural property" forms part of the "cultural heritage of all mankind"[18] and that every nation has "moral obligations to respect its own cultural heritage and that of all nations".[19] A similar principle could be discerned from the Declaration on the Principles of International Cultural

14. *Convention for the Protection of Cultural Property in the Event of Armed Conflict*, 14 May 1954, 249 U.N.T.S. 215 (entered into force 7 August 1956) [*Hague Convention*].

15. *Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property*, 14 November 1970, 823 U.N.T.S. 231 (entered into force 24 April 1972) [*Illicit Traffic of Cultural Property Convention*].

16. N. BRODIE *et al.*, *Stealing History: The Illicit Trade in Cultural Material, Commissioned by ICOM UK and Museums Association* (Cambridge: McDonald Institute for Archaeological Research, 2000) at 8.

17. For a detailed discussion of the Convention, see J.H. MERRYMAN, "Two Ways of Thinking About Cultural Property" (1986) 80 American Journal of International Law 831.

18. *Hague Convention*, *supra* note 14, preamble, para. 2.

19. *Illicit Traffic of Cultural Property Convention*, *supra* note 15, preamble, para. 5.

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Cooperation adopted by UNESCO in 1966,[20] which stated that "[i]n their rich variety and diversity, and in the reciprocal influences they exert on one another, all cultures form part of the common heritage belonging to all mankind" (Article I(3)). To an extent, this principle was based on the premise that the promotion of mutual respect among different cultures helps foster the "intellectual and moral solidarity of mankind",[21] which in turn helps prevent wars.[22] In this light, early efforts to protect cultures and their manifestations could be seen as part of the UN's broader strategy to maintain international peace and security in the postwar era.

In the early 1970s, there was a growing recognition that cultural assets were no longer threatened only by theft and other prejudicial activities, but also by the "changing social and economic conditions, which aggravate[d] the situation with even more formidable phenomena of damage or destruction".[23] This was reflected in the conclusion of the UNESCO Convention Concerning the Protection of the World Cultural and National Heritage (World Heritage Convention) in 1972.[24] Like the earlier conventions on cultural property, the World Heritage Convention recognized that there was a need to preserve certain heritage as "part of the world heritage of mankind as a whole" (Preamble, paragraph 6). However, it shifted the policy focus of UNESCO from the prevention of illicit activities towards the "identification, protection, conservation, presentation, and transmission to future generation" of cultural heritage (Article 4). The World Heritage Convention also emphasized the need for international co-operation and assistance (Preamble, paragraph 7), which echoed the fact that many newly independent states were having difficulties in balancing their economic development with the protection of their environment and cultural heritage at that time.

Towards the end of the 1970s, there was an important development regarding the protection of "folklore". This initially took place in the field of copyright law with the adoption of the Tunis Model Law on Copyright for Developing Countries in 1976.[25] The Tunis Model Law sought to extend the scope of copyright law to accommodate "works of national folklore" by removing the fixation requirement (Section 1(5bis)), eliminating time limits for protection (Section 6(2)), and designating a "competent authority" that could exercise moral rights to prevent folklore from distortion (Sections 5(1) and 6(1)).

Protecting folklore through copyright law was later perceived to be inadequate and there was a demand for a *sui generis* regime of protection tailored to the perceived "special" characteristics of folklore.[26] This led to the adoption of the

20. Adopted by UNESCO General Conference at its Fourteenth Session on 4 November 1966.

21. See *Constitution of the United Nations Educational, Scientific and Cultural Organization*, 16 November 1945, 4 U.N.T.S. 275 (entered into force 4 November 1946), preamble, para. 5 [*UNESCO Constitution*].

22. As the UNESCO Constitution declares, "[s]ince wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed" (preamble, para. 1).

23. *Convention for the Protection of the World Cultural and Natural Heritage*, 16 November 1972, 1037 U.N.T.S. 151 (entered into force 17 December 1975), preamble, para. 1 [*World Heritage Convention*].

24. *Ibid.*

25. Adopted by the Committee of Governmental Experts convened by the Tunisian Government in Tunis (23 February – 2 March 1976), with the assistance of UNESCO and WIPO.

26. Folklore is generally characterized as being collective, intergenerational, orally transmitted, constantly evolving, and integral to the cultural identity of the cultural group from which it originates. See *The*

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UNESCO-WIPO Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions, in 1982.[27] The Model Provisions sought to protect "expressions of folklore" from unauthorized use (Section 3), misrepresentation of source (Section 5), and wilful distortion (Section 6(4)). They recognized for the first time that expressions of folklore were the products of "communities", who had vested "traditional artistic expectations" (Section 2) and "cultural interests" (Section 6(4)) in their cultural creations.

Both the Tunis Model Law and the Model Provisions can be seen, in large part, as a response to the post-colonial concern of newly independent states over the exploitation of their cultural heritage—a concern that their folklore was being "commercialized … on a worldwide scale without due respect for the … interest of the communities in which they originate and without conceding any share in the returns from such exploitation … to the peoples who are authors of their folklore".[28] It had been this same concern that led to the amendment of the 1886 Berne Convention for the Protection of Literary and Artistic Work[29] in 1971 to provide copyright protection to "unpublished and anonymous works" (Article 15(4)).

Concerns about commercial exploitation were not the sole impetus for the development of an international regime for folklore protection. Mounting concerns over the rapid disappearance of folklore also prompted UNESCO to adopt the Recommendation on the Safeguarding of Traditional Culture and Folklore in 1989, focusing on the identification, preservation, conservation, and dissemination of folklore.[30] The Recommendation recognized "the extreme fragility of the traditional forms of folklore, particularly those aspects relating to oral tradition and the risk that they might be lost" (Preamble, paragraph 4), and perceived folklore as "part of the universal heritage of humanity" and as "a powerful means of bringing together different peoples … and of asserting their cultural identity" (Preamble, paragraph 1).

Meanwhile, a different concept emerged in the World Health Organization (WHO): "traditional medicine."[31] In 1976, the WHO established a working group for the promotion and development of traditional medicine, which was followed by the passage of a resolution on the promotion and development of training and research in traditional medicine by the World Health Assembly in 1977. The aim of

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Protection of Traditional Cultural Expressions: Draft Gap Analysis, WIPO Doc. WIPO/GRTKF/IC/13/4(b) Rev. (2008).

27. Adopted by the Committee of Governmental Experts on the Intellectual Property Aspects of the Protection of Expressions of Folklore convened by UNESCO and WIPO in Geneva (28 June – 2 July 1982) [*UNESCO-WIPO Model Provisions*].

28. See commentary prepared by the UNESCO and WIPO Secretariats on the UNESCO-WIPO Model Provisions, para. 2.

29. *Berne Convention for the Protection of Literary and Artistic Works*, 9 September 1886 (revised in 1908 (Berlin), 1928 (Rome), 1948 (Brussels), 1967 (Stockholm), 1971 (Paris), and amended in 1979), WIPO Database of Intellectual Property Legislative Texts, WO001EN.

30. Adopted by UNESCO General Conference at its Twenty-Fifth Session on 15 November 1989.

31. Defined as "the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness": *General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine*, WHO Doc. WHO/EDM/TRM/2000.1 (2000) at 1.

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the WHO's traditional medicine programme was to promote the contribution of traditional medicine to health care, to explore the merits of traditional medicine in the light of modern science, and to promote the integration of traditional and Western medicine.[32]

By the end of the 1980s, various TK-related concepts—namely, "cultural property", "cultural heritage", "folklore", "works of national folklore", "expressions of folklore", and "traditional medicine"—had been included in the work programmes of UNESCO, WIPO, and WHO. Already, the objectives of protection were manifold, including protection against destruction during armed conflicts, protection against illicit activities such as theft, protection against loss and degradation, protection against unfair commercial exploitation, and the promotion of the safe use of traditional medicine. In the 1990s, as we shall see, the international legal landscape for TK changed radically; first, through the rise of indigenism and environmentalism, and later through the move towards the international harmonization of IP laws.

B. *1990s: Indigenism, Environmentalism, and International Harmonization of IP*

Towards the end of the 1980s, indigenous peoples' movements began to gain momentum and garner attention internationally,[33] leading to the conclusion of the first and still the only legally binding international instrument on indigenous peoples' rights: the 1989 International Labour Organization Convention Concerning Indigenous and Tribal Peoples in Independent Countries (ILO Convention No. 169).[34] The Convention recognized the aspirations of indigenous and tribal peoples to "exercise control over their own institutions, ways of life and economic development and to maintain and develop their identities, languages and religions" (Preamble, paragraph 5). It also acknowledged the close link between the livelihood of indigenous peoples and the maintenance of their traditional practices (Article 23(1)). Other initiatives in this field included the 1991 Revised Policy on Indigenous Peoples issued by the World Bank,[35] the 1993 Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples,[36] and the Principles and Guidelines for the Protection of

32. See generally H. VUORI, "The World Heath Organization and Traditional Medicine" (1982) 4 Community Medicine 129.

33. Von Lewinski suggests that this was partly because the organization of indigenous groups became more efficient, allowing them to be better represented in different international fora: S. VON LEWINSKI, "The Protection of Folklore" (2003–2004) 11 Cardozo Journal of International and Comparative Law 747 at 747.

34. *Convention Concerning Indigenous and Tribal Peoples in Independent Countries*, 27 June 1989, 72 ILO Official Bull 59, 28 I.L.M. 1382 (entered into force 5 September 1991) [*ILO Convention No. 169*].

35. The World Bank adopted its first policy on indigenous peoples in 1982. A new and revised policy on indigenous peoples, adopted in 1991, recognized the importance of protecting the ancestral lands of indigenous people and also referred to the need to ensure the participation of indigenous peoples in decision-making regarding development projects. See World Bank, *Indigenous Knowledge: Local Pathways to Global Development* (2004), online: World Bank 〈http://www.worldbank.org/afr/ik/ikcomplete.pdf〉.

36. Passed by the Plenary of the First International Conference on the Cultural & Intellectual Property Rights of Indigenous Peoples (12–18 June 1993, New Zealand), in recognition that 1993 was the UN International Year for the World's Indigenous Peoples.

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the Heritage of Indigenous Peoples developed under the auspices of the UN Working Group on Indigenous Populations in 1994.[37]

Essentially, the indigenous movements asserted that indigenous peoples are creators and guardians of TK, and that their rights (as "owners" of TK) must be respected by individuals, organizations, or governments wishing to access or use their knowledge.[38] They also brought to the forefront of the TK debate the concept of "holism"—the notion that there are social, cultural, and spiritual values embodied within TK, intertwined with indigenous ways of life, and inseparably linked to the land, resources, and natural environment in which indigenous peoples live. On this view, TK forms an integral part of their cultural identities and must be protected in a "holistic" manner; any attempt to single out an individual component for protection may be prejudicial to the essence of indigenous cultures.[39] In addition, the indigenous movements highlighted the crucial link between TK protection and the recognition of indigenous peoples' rights to self-determination and to control over their lands and natural resources, thereby adding the language of human rights to the debate.[40]

The growing recognition of indigenous peoples' rights coincided with mounting concerns over the loss of biological diversity. In 1988, the UNEP began its work on biological diversity, which led to the conclusion of the Convention on Biological Diversity (CBD) in 1992.[41] The CBD had three objectives: the conservation of biological diversity, the sustainable use of its components, and the equitable sharing of benefits arising out of the utilization of genetic resources (Article 1). Most relevant to TK protection was Article 8(j), which required its Contracting Parties to "respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyle relevant for the conservation and sustainable use of biological diversity". This was clear recognition of the wealth of ecological knowledge belonging to indigenous and local communities and their important roles in environmental conservation. Explicit recognition of the role of indigenous and local communities in the conservation of biological diversity can also

37. *Protection of the Heritage of Indigenous People: Final Report of the Special Rapporteur,* Erica-Irene DAES, in conformity with the Subcommission on Protection of Discrimination and Protection of Minorities resolution 1993/44 and decision 1994/105 of the Commission on Human Rights, UN Doc. E/CN.4/Sub.2/1995/26 (1995).

38. These claims were made for the purposes of "identity assertion, greater inclusion in political life, the defense of local autonomy, and new forms of engagement with global markets": Coombe, *supra* note 8 at 395.

39. D.A. POSEY, *Traditional Resource Rights: International Instruments for Protection and Compensation for Indigenous Peoples and Local Communities* (Cambridge: IUCN, 1996); G. DUTFIELD, *Intellectual Property, Biogenetic Resources and Traditional Knowledge* (London: Earthscan, 2004).

40. For discussions about TK and human rights, see F. LENZERINI, "Indigenous Peoples' Cultural Rights and Controversy Over Commercial Use of Their Traditional Knowledge" in F. FRANCIONI and M. SCHEININ, eds., *Cultural Human Rights* (Leiden: Martinus Nijhoff, 2008), 119; B. TOBIN, "Setting Protection of TK to Rights – Placing Human Rights and Customary Law at the Heart of TK Governance" in E.C. KAMAU and G. WINTER, eds., *Genetic Resources, Traditional Knowledge & the Law: Solutions for Access & Benefit Sharing* (Sterling: Earthscan, 2009), 101.

41. *Convention on Biological Diversity*, 5 June 1992, 1760 U.N.T.S. 79, 31 I.L.M. 818 (entered into force 29 December 1993) [*CBD*].

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be found in non-binding instruments of the same period, including the Rio Declaration,[42] Agenda 21,[43] and the Forest Principles.[44]

Equally important was the second half of Article 8(j) of the CBD, according to which the Parties should "encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices", and Article 15(5), which provided that "[a]ccess to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources". These two provisions effectively set forth two new concepts, namely "equitable sharing of benefits"[45] and "prior informed consent",[46] which would soon become the key principles governing the access to, and utilization of genetic resources and associated TK, and incorporated into the national laws of several developing countries.[47]

In line with the principles established by the Convention on Biological Diversity, the Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification (UNCCD) was concluded in 1994.[48] It contained provisions which addressed TK protection, albeit in the narrow context of combating desertification and drought, requiring the Parties to make "inventories" of relevant TK (Article 18(2)(a)) and to ensure that TK is "adequately protected and that local populations benefit directly, on an equitable basis and as mutually agreed, from any commercial utilization of [TK] or from any technological development derived therefrom" (Articles 16(g) and 18(2)(b)). The UNCCD viewed local populations and communities as "owners" of TK

42. *Rio Declaration on Environment and Development*, UN Doc. A/CONF.151/5/Rev.1, 14 June 1992, 31 I.L.M. 874 (1992); Principle 22 states that "[i]ndigenous peoples and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development."

43. *Agenda 21*, Conference of the United Nations on Environment and Development, Annex 2, UN Doc. A/CONF.151/26/Rev.1, Vol. 1 (1993). See in particular Chapter 15 on conservation of biological diversity, Chapter 26 on indigenous people, and Chapter 32 on local farmers.

44. *Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests*, UN Doc. A/CONF.151/6/Rev.1 (1992), 31 I.L.M. 881. See in particular Principle 12(d) which states that "[a]ppropriate indigenous capacity and local knowledge regarding the conservation and sustainable development of forests should … be recognized, respected, recorded, developed and, as appropriate, introduced in the implementation of programmes".

45. According to this Principle, the holders of TK should receive an equitable share of the benefits that arise from the use of their TK, which may be expressed in terms of a compensatory payment, or other non-monetary benefits (see the 2002 *Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising from Their Utilization*, online: 〈http://www.cbd.int/abs/bonn/〉).

46. According to this Principle, holders of TK should be fully consulted before their TK is accessed or used by third parties. In the process of consultation, they should be fully informed about the consequences of the intended use and an agreement should be reached, on appropriate terms, regarding the scope of use and how the benefits arising from the future exploitation will be shared.

47. See e.g. Brazil's *Provisional Measure* (*Medida Provisória* 2186-16/2001, 2001), which recognizes indigenous peoples' right to prevent unauthorized use by a third party (art. 9) and establishes a system of access and benefit-sharing (Chapter VII), and Thailand's *Plants Varieties Protection Act* B.E. 2542 (1999), which requires those seeking to "collect, procure or gather" registered local plant varieties to conclude access and benefit-sharing agreements with the relevant community (s. 48).

48. *United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa*, 17 June 1994, 1954 U.N.T.S. 3, 33 I.L.M. 1328 (entered into force 26 December 1996) [*UNCCD*].

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(Article 7(c))[49] and recognized that it was important not only to "preserve and maintain" TK but also to encourage its dynamic creation and dissemination (Article 18(2)).

Besides the rise of environmentalism and indigenism, the 1990s also witnessed an important move towards the international harmonization of national IP laws through the conclusion of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1994.[50] TRIPS sought to harmonize national IP laws by setting out the minimum standards of IP protection to be provided by each member of the WTO. Many commentators have pointed out that TRIPS, with its neoliberal imperatives, allowed for the granting of patents to inventions based on biological resources and associated TK, but contained no provisions to protect those resources from what some see as misappropriation.[51] Accordingly, there were calls to amend TRIPS to make it more responsive to the needs of developing countries. These calls led to the adoption of the Doha Ministerial Declaration in 2001[52] and began the ongoing debates in the Council for TRIPS on the relationship between TRIPS and the CBD, in particular on issues concerning disclosure requirements of the source of biological materials and associated TK, prior informed consent, and benefit-sharing arrangements.[53]

It was not a coincidence that TRIPS was concluded at a time of rapid advancement in biotechnology and the associated growth of pharmaceutical industries.[54] These developments posed challenges for many developing countries, especially those rich in biological resources and TK, who believed that their resources and knowledge were being sought by multinational pharmaceutical corporations to provide a head start in their product development—a practice often called "bio-prospecting".[55] Fears that these practices would lead to a misappropriation of TK, coupled with increased public awareness about the economic values of TK, had prompted many developing

49. Under the CBD, ownership in TK ultimately rested with national governments under the principle of "sovereignty" over natural resources (art. 3).

50. *Agreement on Trade-Related Aspects of Intellectual Property Rights, Marrakesh Agreement Establishing the World Trade Organization*, Annex 1C, 15 April 1994, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (entered into force 1 January 1995) [*TRIPS*].

51. See e.g. D. GERVAIS, "TRIPS, Doha, and Traditional Knowledge" (2003) 6 Journal of World Intellectual Property 403; C. OGUAMANAM, "Local Knowledge as Trapped Knowledge: Intellectual Property, Culture, Power and Politics" (2008) 11 Journal of World Intellectual Property 29.

52. *Ministerial Declaration*, adopted on 14 November 2001 at the Fourth Session of WTO Ministerial Conference, WTO Doc. WT/MIN(01)/DEC/1 (2001). See particularly para. 19, which instructed the TRIPS Council, "in pursuing its work programme including under the review of art. 27.3(b) … to examine, *inter alia*, the relationship between the TRIPS Agreement and the Convention on Biological Diversity [and] the protection of traditional knowledge and folklore".

53. See generally *The Relationship Between the TRIPS Agreement and the Convention on Biological Diversity: Summary of Issues Raised and Points Made*, WTO Doc. IP/C/W/368/Rev.1 (2006); R.G. TARASOFSKY, "The Relationship Between the TRIPS Agreement and the Convention on Biological Diversity: Towards a Pragmatic Approach" (1997) 6 Review of European Commmunity & International Environmental Law 148.

54. For a history of TRIPS, see D. GERVAIS, *The TRIPS Agreement: Drafting History and Analysis*, 3rd ed. (London: Sweet & Maxwell, 2008).

55. See generally S.A. LAIRD and K. TEN KATE, "Biodiversity Prospecting: The Commercial Use of Genetic Resources and Best Practice in Benefit-Sharing" in S.A. LAIRD, ed., *Biodiversity and Traditional Knowledge: Equitable Partnerships in Practice* (London: Earthscan, 2002), 241.

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countries and indigenous groups to call for international action against what they termed "biopiracy".[56]

A common but sometimes exaggerated view that has informed much of today's biopiracy narrative is that TK is being appropriated, through the acquisition of exclusive IP rights, by rich corporations, who convert it into valuable products, which are then sold for huge profits, without sharing the profits with, or recognizing the contribution of, the often poor TK holders.[57] High-profile incidents such as *Ayahuasca*,[58] *Neem*,[59] *Turmeric*,[60] and *Hoodie Cactus*[61] are often cited as examples of the misappropriation of TK. While scholars are divided on whether "biopiracy" really exists,[62] the biopiracy narrative has undeniably been an important driving force for national and international efforts to protect TK.[63]

Towards the end of the 1990s, the notion of "folklore" re-emerged, but this time in the field of performer's rights. In 1996, while WIPO and its members were negotiating the WIPO Performances and Phonograms Treaty, some developing countries reasserted their demands for folklore protection, resulting in the extension of the definition of "performer" to include performers of "expressions of folklore".[64]

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56. Defined as "the appropriation of the knowledge and genetic resources of farming and indigenous communities by individuals or institutions who seek exclusive monopoly control (patents or intellectual property) over these resources and knowledge" by the Action Group on Erosion, Technology and Concentration, online: ETC Group 〈http://www.etcgroup.org/node/2164〉.

57. For a strong view against biopiracy, see V. SHIVA, *Biopiracy: The Plunder of Nature and Knowledge* (Dartington: Green Books, in association with the Gaia Foundation, 1998).

58. A drink made of a vine used by indigenous tribes throughout the Amazon in religious and healing ceremonies. In 1986, Loren Miller obtained a US plant patent over an alleged variety of the vine, claiming that it represented a new and distinct variety. The Centre of International Environmental Law filed a re-examination request on behalf of the Amazonian indigenous organizations, leading to the patent being revoked in 1999 by the USPTO. The patent was, however, regranted in 2001 following a re-examination request presented by Loren Miller.

59. An Indian tree, the extract of which has long been used by traditional communities in India and other parts of South and Southeast Asia as natural pesticide and fertilizer. The European Patent Office granted a multinational corporation a patent for "a method for controlling fungi on plants by the aid of a hydrophobic extracted Neem oil" in 1994. The patent was revoked in 2000.

60. A plant of the ginger family traditionally used for healing wounds. Two Indian nationals in the US were granted a US patent on the "use of turmeric in wound healing" in 1995. The patent was revoked in 2002.

61. A cactus used by the San people in southern Africa to stave off hunger and thirst on long hunting trips. A patent was granted to the South African Council for Scientific and Industrial Research on its appetite-suppressing element in 1995. The San people protested and in 2002 an agreement was reached whereby the San were recognized as custodians of the TK and would receive a share of future royalties from the sale of the drug developed from their knowledge.

62. Some scholars accept "biopiracy" as an objective reality, e.g. J. DE WERRA, "Fighting Against Biopiracy: Does the Obligation to Disclose in Patent Applications Truly Help?" (2009) 42 Vanderbilt Journal of Transnational Law 143. Others see it as either a fiction, e.g. J. CHEN, "There's No Such Thing as Biopiracy … and It's a Good Thing Too" (2006) 37 McGeorge Law Review 1; or as part of a social movement, e.g. R.J. COOMBE, "Protecting Traditional Environmental Knowledge and New Social Movements in the Americas: Intellectual Property, Human Right, or Claims to an Alternative Form of Sustainable Development?" (2005) 17 Florida Journal of International Law 115.

63. The fact that the WIPO's Draft Articles on the protection of TK (in the strict sense) explicitly acknowledge the need to prevent misappropriation of TK is illustrative of this. See *The Protection of Traditional Knowledge: Draft Articles*, WIPO Doc. WIPO/GRTKF/IC/24/4 (2013), Annex, arts. 3 and 4 at 13–16.

64. *WIPO Performances and Phonograms Treaty*, 20 December 1996, 2186 U.N.T.S. 121 (entered into force 20 May 2002), art. 2(a).

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The renewed interest in folklore protection in this period was also evidenced by the convening of the UNESCO/WIPO World Forum on the Protection of Folklore in 1997. Given that indigenous peoples were gaining international recognition in this period, it was unsurprising that the ensuing discussions on folklore were different from those of the 1980s, in that indigenous peoples played a much greater role in shaping the terms of the discussions.[65]

Throughout the 1990s, the advancement of communication technology had allowed for rapid reproduction and publication of TK while raising public awareness of the misappropriation of cultural resources, and enhancing political consciousness about the necessity of making IP systems more responsive to the needs of wider groups of people.[66] In response to these sociopolitical pressures, WIPO established the Global Intellectual Property Issues Division in 1997. One of the Division's first tasks was to identify and explore the needs and expectations of new beneficiaries (that is, groups which had until then had little exposure to the IP systems, such as TK holders) in order to promote the contribution of the IP system to their social, cultural, and economic development.[67] This was done through a series of nine fact-finding missions in twenty-eight countries between 1998 and 1999. The findings of these missions, published in 2001,[68] significantly shaped how the later debate about TK protection was framed within WIPO and continue to be relevant today.

The 1990s was an important decade for TK. It saw the emergence of new concepts such as "indigenous knowledge" and "knowledge, innovations and practices of indigenous and local communities". It also saw the birth of the biopiracy narrative, the articulations of human rights by indigenous peoples, and the proliferation of fora—namely, the ILO, the World Bank, the CBD, the UNCCD, the UN Working Group on Indigenous Populations, and the WTO. The list of TK-related objectives was then expanded to include the recognition of indigenous peoples' rights, the preservation of TK for the purpose of environmental conservation, and the prevention of biopiracy. As we shall see, this trend of diversification would continue at an accelerated pace in the 2000s.

C. *2000s—Present: Institutionalization, Diversification, and Intensification*

In 2000, the WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) was established to serve as a forum for discussion on the interplay between IP and TK.[69] This effectively

65. M. PERLMAN, "From 'Folklore' to 'Knowledge' in Global Governance: On the Metamorphoses of the Unauthored" in M. BIAGIOLI *et al.*, eds., *Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective* (London: University of Chicago Press, 2011), 115.

66. Coombe, *supra* note 8 at 394.

67. See *Draft Program and Budget 1998–1999*, WIPO Doc. A/32/2-WO/BC/18/2, Main Programme 11 at 105.

68. WIPO, *Intellectual Property Needs and Expectations of Traditional Knowledge Holders: WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998–1999)*, WIPO Publication No. 768(E) (2001) [*WIPO Fact-Finding Report*].

69. Established by WIPO General Assembly at its Twenty-Sixth Session (25 September – 3 October 2000). See *Report of the Twenty-Sixth Session of WIPO General Assembly*, WIPO Doc. WO/GA/26/10, para. 71.

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institutionalized the term "traditional knowledge" and the IP-centred approach to TK protection (that is, the protection of TK through IP tools). The phrase "traditional knowledge" in the IGC's name refers to TK in the strict sense, that is, technical know-how, practices, skills, and innovations, which are to be distinguished from cultural manifestations such as music, art, designs, symbols, and performances. WIPO refers to the latter type of knowledge as "traditional cultural expressions" (TCEs), which was introduced as an alternative term to "folklore/expressions of folklore". This terminological change was largely a response to the concern among TK proponents that "folklore" was "an anachronistic reference to a frozen cultural archive that they consider, instead, to be a dynamic resource for continuing innovation".[70] WIPO explains that TK (in the strict sense), TCEs, and genetic resources are folded together under the IGC's purview, because "the three themes are closely interrelated, and none can be addressed effectively without considering aspects of the others".[71]

In 2005, WIPO set up the WIPO Voluntary Fund to finance, and thus enhance, the participation of indigenous and local communities in the IGC process.[72] Four years later, the IGC was given the mandate to develop an international legal instrument (or instruments) that would give effective protection for TK (in the strict sense), genetic resources, and TCEs.[73] Following extensive consultations with multiple stakeholders, the IGC produced two sets of "draft articles", one for TK and another for TCEs, together with a less-developed "consolidated document" for genetic resources.[74] These documents are being negotiated at WIPO and are expected to be submitted to the WIPO General Assembly in September 2014 for consideration and for a decision on whether a Diplomatic Conference should be convened.[75]

Outside WIPO, indigenous peoples' claims over TK also became institutionalized under the UN human rights system with the establishment of the UN Permanent Forum on Indigenous Issues (UNPFII) in 2000.[76] The UNPFII serves as "an advisory body to the Economic and Social Council with a mandate to discuss indigenous issues related to economic and social development, culture, the environment, education, health and human rights".[77] Thus far, UNPFII has made several recommendations regarding TK protection to the CBD and WIPO, emphasizing the need to take into account the rights of indigenous peoples when designing a

70. Coombe, *supra* note 8 at 406.

71. *Matters Concerning Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore*, WIPO Doc. WO/GA/26/6 (2000), para. 15.

72. See WIPO, *A Stronger Voice for Indigenous and Local Communities in WIPO's Work on Traditional Knowledge, Traditional Cultural Expressions and Genetic Resources: The WIPO Voluntary Fund, Booklet No. 3*, WIPO Publication No. 936 (undated).

73. According to WIPO, such an instrument could range from a recommendation to a legally binding treaty. See WIPO, *Traditional Knowledge and Intellectual Property*, Background Brief No. 1 (undated).

74. For the latest versions of these documents, visit 〈http://www.wipo.int/tk/en/igc/index.html〉.

75. *Draft Report of the Forty-Third (21st Ordinary) Session of WIPO General Assembly*, WIPO Doc. WO/GA/43/22 PROV. (2013), para. 182.

76. Established by ECOSOC resolution 2000/22 of 28 July 2000, ECOSOC Doc. E/2000/99 (ESCOR, 2000, Suppl No. 1) at 49.

77. See UNPFII, online: 〈http://social.un.org/index/IndigenousPeoples/AboutUsMembers.aspx〉.

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regime for TK protection.[78] Since 2007, the main point of reference for UNPFII has been the UN Declaration on the Rights of Indigenous Peoples adopted by the UN General Assembly on 13 September 2007.[79] The Declaration proclaims, *inter alia*, that indigenous peoples have the right to "maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures" and also the right to "maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge and traditional cultural expressions" (Article 31(1)).

Beyond the fields of IP and human rights, TK protection was also recognized as having important implications for trade and development. This was evidenced by the incorporation of TK protection into UNCTAD's Plan of Action (2000), according to which UNCTAD was requested to study, from a development perspective, "ways to protect traditional knowledge, innovations and practices of local and indigenous communities and enhance cooperation on research and development on technologies associated with the sustainable use of biological resources".[80]

Paralleling the initiatives of UNCTAD were those of the FAO, which emphasized the importance of TK for food security, agricultural diversity, and the sustainable management of agro-ecosystems.[81] Prompted by concerns over the loss of valuable local agricultural systems and practices, the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR) was concluded in 2001.[82] The ITPGR aimed at the conservation and sustainable use of plant genetic resources for food and agriculture, and the fair and equitable sharing of the benefits arising out of their use for sustainable agriculture and food security (Article 1(1)). It explicitly acknowledged the important role of traditional farmers in the conservation of plant genetic resources by introducing the novel notion of "farmers' rights" (Part III) and calling upon the Contracting Parties to ensure the "protection of traditional knowledge relevant to plant genetic resources for food and agriculture" as a means to "protect and preserve" farmers' rights (Article 9(2)(a)). It also established a multilateral system of access and benefit-sharing (Part IV), set up a standardized material transfer agreement for accessing plant genetic resources (Article 12(4)), and treated plant genetic resources as a "common heritage of humanity",[83] echoing

78. See e.g. *Report on the Eleventh Session of the Permanent Forum on Indigenous Issues*, ECOSOC Doc. E/2012/43-E/C.19/2012/13 (2012), paras. 43–55.

79. *United Nations Declaration on the Rights of Indigenous Peoples*, adopted by UN General Assembly at its Sixty-First Session, resolution 61/295 of 13 September 2007, UN Doc. A/RES/61/295 (2007).

80. UNCTAD, *Plan of Action*, UN Doc. TD/386 (2000), para. 147. See also *Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices. Background Note by the UNCTAD Secretariat*, UN Doc. TD/B/COM.1/EM.13/2 (2000).

81. See FAO, *FAO and Traditional Knowledge: The Linkages with Sustainability, Food Security and Climate Change Impacts* (2009), online: FAO 〈http://www.fao.org/docrep/011/i0841e/i0841e00.htm〉.

82. *International Treaty on Plant Genetic Resources for Food and Agriculture*, 3 November 2001, 2400 U.N.T.S. 303 (entered into force 29 June 2004) [*ITPGR*]. ITPGR has its origin in the non-binding International Undertaking on Plant Genetic Resources adopted by the FAO in 1983.

83. See resolution 4/89, Agreed Interpretation of the International Undertaking, adopted by the FAO Conference at its Twenty-Fifth Session on 29 November 1989.

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a similar principle contained in earlier conventions on cultural property and cultural heritage.

Meanwhile, there was a renewed interest in UNESCO in the preservation of TK against loss and deterioration, as demonstrated by the passage of the Convention for the Safeguarding of the Intangible Cultural Heritage (Intangible Cultural Heritage Convention) in 2003,[84] and the Convention on the Protection and Promotion of the Diversity of Cultural Expressions (Cultural Diversity Convention) in 2005.[85]

The Intangible Cultural Heritage Convention sought to safeguard, ensure respect for, and raise awareness about, intangible cultural heritage and to provide international assistance for these purposes (Article 1). It recognized that there is a "deep-seated interdependence between the intangible cultural heritage and the tangible cultural and natural heritage" (Preamble, paragraph 3), and that all forms of cultural heritage must be protected in an integrated manner.[86]

Recognizing that cultural diversity is a "defining characteristic of humanity" (Preamble, paragraph 1), the Cultural Diversity Convention dealt with the protection of cultural expressions more broadly, with one objective being "to create the conditions for cultures to flourish and to freely interact in a mutually beneficial manner" (Article 1(b)). While TK is not its main focus, it recognized "the importance of traditional knowledge as a source of intangible and material wealth … and its positive contribution to sustainable development, as well as the need for its adequate protection and promotion" (Preamble, paragraph 8).

Both the Intangible Cultural Heritage Convention and the Cultural Diversity Convention recognized that there is a close link between heritage, cultural diversity, and sustainable development.[87] They also represented a shift in emphasis from the preservation of "fixed" monuments, which was informed by the concepts of monumentality and aesthetics,[88] to the sustainable usage and safeguarding of "living" cultural heritage for social purposes.[89]

UNESCO's renewed interest in TK protection coincided with several new initiatives of other organizations. In the field of traditional medicine, for example, the WHO introduced the Traditional Medicine Strategy for 2002–2005.[90] In the field of environmental law, the Nagoya Protocol on Access to Genetic Resources and

84. *Convention for the Safeguarding of the Intangible Cultural Heritage*, 17 October 2003, 2368 U.N.T.S. 3 (entered into force 20 April 2006) [*Intangible Cultural Heritage Convention*].

85. *Convention on the Protection and Promotion of the Diversity of Cultural Expressions*, 20 October 2005, 2440 U.N.T.S. 311 (entered into force 18 March 2007) [*Cultural Diversity Convention*].

86. See also the *Yamato Declaration on Integrated Approaches for Safeguarding Tangible and Intangible Cultural Heritage*, adopted at the International Conference on the Safeguarding of Tangible and Intangible Heritage, organized by the Japanese Agency for Cultural Affairs and UNESCO, 20–23 October 2004, Nara, Japan.

87. See preamble, para. 2, *Intangible Cultural Heritage Convention*; and art. 1(f), *Cultural Diversity Convention*.

88. According to Smith, the concepts of monumentality and aesthetics have given rise to many unuseful assumptions about the "innate and immutable cultural values of heritage": L. SMITH, *Uses of Heritage* (London: Routledge, 2006) at 4.

89. T. LOULANSKI, "Revising the Concept for Cultural Heritage: The Argument for a Functional Approach" (2007) 13 International Journal of Cultural Property 207 at 211.

90. See *WHO Traditional Medicine Strategy 2002–2005*, WHO Doc. WHO/EDM/TRM/2002.1 (2002).

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the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the CBD was adopted in 2010[91] to supplement the CBD by providing greater legal certainty and transparency for both providers and users of genetic resources.[92] In the field of food and agriculture, the Committee on World Food Security adopted in May 2012 the multidisciplinary Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security, aimed at sustainable livelihood, social stability, housing security, rural development, environmental protection, and social and economic development for the benefit of vulnerable and marginalized people.[93] Finally, in the field of IP law, the Beijing Treaty on Audiovisual Performances, which provides international protection for the economic and moral rights of audiovisual performers, including performers of TCEs, was recently concluded in June 2012.[94]

D. *TK Debate Today: Fragmentation*

Since 2000, the scope of TK discussions has been enlarged to encompass issues of trade and development, food security, and agricultural sustainability. We have witnessed the emergence of new TK platforms, including UNPFII, FAO, and UNCTAD, and the increased specialization of existing ones, giving rise to more nuanced concepts such as "traditional cultural expressions", "intangible cultural heritage", and "cultural diversity". The outcome of such diversification and specialization is an extremely complex legal and policy discourse, within which TK is variously framed as an issue of IP, cultural heritage, human rights, environmental conservation, food and agriculture, trade and development, or public health.

Over the past sixty years or so, "TK protection" has undergone a profound transformation from being an incidental part of the UN's postwar policies to become an integral part of international policy and legal debate today. This transformation is characterized by the proliferation of international fora working on TK, the accompanying growth and diversification of norm-making initiatives and instruments, and the increasing specialization of the relevant fora, as illustrated in Figure 1.

Each international institution involved in TK protection has a specific agenda to pursue and a particular mandate to perform. They therefore approach TK from different angles. While WIPO is seeking to protect TK against misappropriation or "biopiracy", UNEP is working towards the preservation of traditional ecological

91. *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity*, 29 October 2010, online: CBD 〈http://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf〉 (not yet in force).

92. For a negotiating history of the Protocol, see M. BUCK and C. HAMILTON, "The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity" (2011) 20 Review of European Commmunity & International Environmental Law 47.

93. Endorsed by the Committee on World Food Security at its Thirty-Eighth (Special) Session on 11 May 2012, online: FAO 〈http://www.fao.org/nr/tenure/en/〉. See also FAO, *Voluntary Guidelines on the Governance of Tenure: At a Glance* (2012), online: FAO 〈http://www.fao.org/docrep/016/i3016e/i3016e.pdf〉.

94. *Beijing Treaty on Audiovisual Performances*, 24 June 2012, WIPO Doc. AVP/DC/20, online: WIPO 〈http://www.wipo.int/edocs/mdocs/copyright/en/avp_dc/avp_dc_20.pdf〉 (not yet in force).

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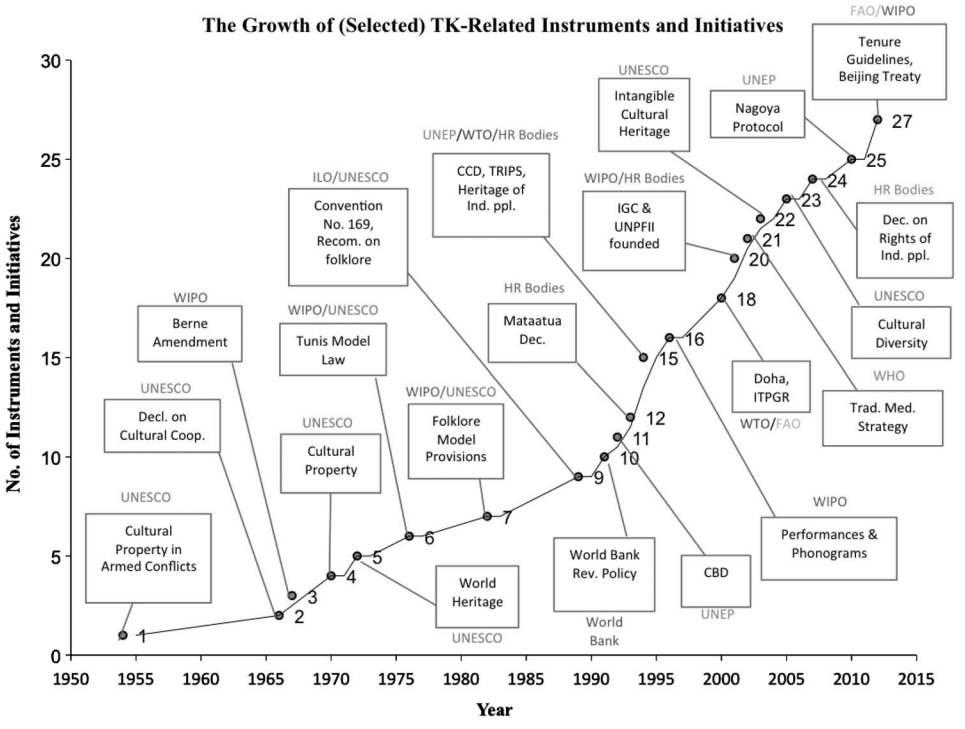


Figure 1: The growth of (selected) TK-related instruments and initiatives.

knowledge, the access to genetic resources and associated TK, and the equitable sharing of the benefits arising from their use. UNESCO is aiming for the preservation and promotion of TK, while the WTO is examining the relationship between TRIPS and the CBD, focusing on the disclosure requirement for patent applications. From a human rights perspective, ILO and UNPFII are seeking to protect TK as part of the protection and promotion of indigenous peoples' social, economic, and cultural rights, while other institutions are looking into the relevance of TK for sustainable development (UNCTAD), food security and sustainable agriculture (FAO), and the provision of primary health care (WHO).

These initiatives seem to have developed rapidly and largely independently of one another. This is a classic case of the fragmentation of international law, whereby "specialized law-making and institution-building has taken place with relative ignorance of legislative and institutional activities in the adjoining fields".[95] According to the International Law Commission, fragmentation arises because "[e]ach rule-complex or 'regime' comes with its own principles, its own form of expertise and its own 'ethos', not necessarily identical to the ethos of neighbouring specialization",[96] which ultimately leads to "functional differentiation" and may

95. *ILC Study Group Report*, *supra* note 3, para. 8.
96. *Ibid.*, para. 15.

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result in "conflicts between rules or rule-systems, deviating institutional practices and, possibly, the loss of an overall perspective on the law".[97] Fragmentation is said to be, on one level, a reflection of the political fragmentation among states whose divergent political priorities have led to diverse institutionalization[98] and, on another level, a manifestation of the political process whereby the relevant institutions themselves "are engaged in a *hegemonic* struggle in which each hopes to have its special interests identified with the general interest".[99]

Of course, the multiplication of international norm-making platforms and the increased complexity of legal rules can be perceived as a natural by-product of the development of any new international law, reflecting its maturation rather than positing a threat to its unity.[100] After all, a similar phenomenon is happening in other emerging fields of international law, such as fisheries governance[101] and forest protection.[102] It is also arguable that the proliferation of international fora facilitates the collective generation and exchange of ideas relating to TK protection. As WIPO observes, the differences in each organization's approach is "naturally a reflection of each organization's particular mandate and objectives", and the diversity of perspectives has "helped enrich the debate" with ideas and potential solutions.[103] From this perspective, one may be inclined to dismiss concerns about fragmentation in the field of TK protection as mere "postmodern anxieties"[104] unworthy of discussion.

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97. *Ibid*., para. 8.

98. See H. GERHARD, "Pros and Cons Ensuing from Fragmentation of International Law" (2003–2004) 25 Michigan Journal of International Law 849 (identifying various factors responsible for increased fragmentation, namely the proliferation of international regulations, the increasing political fragmentation, the regionalization of international law, the emancipation of individuals from states, and the specialization of international regulations).

99. M. KOSKENNIEMI and P. LEINO, "Fragmentation of International Law? Postmodern Anxieties" (2002) 15 Leiden Journal of International Law 553 at 562 (emphasis in original). It is interesting to see how different institutions prioritize their involvement in the TK debate; e.g. Twarog, an UNCTAD staffer, writes that "UNCTAD addresses the issue from the trade and development perspective and can thus have a somewhat more holistic approach [than WIPO, WTO, and CBD]": S. TWAROG, "Preserving, Protecting and Promoting Traditional Knowledge: National Actions and International Dimensions" in S. TWAROG and P. KAPOOR, eds., *Protecting and Promoting Traditional Knowledge: Systems, National Experiences and International Dimensions* (Geneva: UNCTAD, 2004), 61 at 61. Cf. WIPO's attempt to distinguish its work on TK protection from the initiatives of other organizations by claiming that it focuses on the "legal" protection of TK, while others are more concerned with the preservation and dissemination of TK, which are not "legal protection" in the strict sense: WIPO Background Brief No. 1, *supra* note 73 at 2.

100. G. ABI-SAAB, "Fragmentation or Unification: Some Concluding Remarks" (1998–99) 31 New York University Journal of International Law and Politics 919 at 925.

101. See M.A. YOUNG, *Trading Fish, Saving Fish: The Interaction Between Regimes in International Law* (Cambridge: Cambridge University Press, 2011).

102. See H.V. ASSELT, "Managing the Fragmentation of International Environmental Law: Forests at the Intersection of the Climate and Biodiversity Regimes" (2011–12) 44 New York University Journal of International Law and Politics 1205.

103. *WIPO Fact-Finding Report*, *supra* note 68 at 54. See also J. CRAWFORD and M. KOSKENNIEMI, "Introduction" in J. CRAWFORD and M. KOSKENNIEMI, eds., *The Cambridge Companion to International Law* (Cambridge: Cambridge University Press, 2012), 1 at 12 (noting that "[f]ragmentation in the international system is to some extent unavoidable, even—in terms of the capacity for development and experimentation—desirable").

104. See Koskenniemi and Leino, *supra* note 99.

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Nevertheless, there is a danger in overemphasizing the normality and advantages of fragmentation, which can blind us to its potentially harmful features that require carefully crafted responses. Indeed, as it will become apparent in Part II of this paper, while the multiplication of international organizations may not, in itself, be a danger to the unity of global efforts to protect TK,[105] it complicates markedly the relevant norm-making processes.

II. LOST IN FRAGMENTATION: PROBLEMS AND PROSPECTS

In Part I, we uncovered the concurrent trends of proliferation and diversification that have contributed to the fragmentation of international law on TK. Part II will highlight and explain the problems and challenges associated with fragmentation, namely the terminological confusion, the diversity of objectives, the controversy over who should be the beneficiaries of TK protection, the inconsistency in national positions, and the selective participation of governments in certain fora.

A. *Terminological Confusion*

One notable consequence of fragmentation is the superabundance of TK-related concepts. The terms used to describe aspects of traditional culture now include "traditional knowledge", "cultural property", "cultural heritage", "intangible cultural heritage", "folklore/expression of folklore", "traditional cultural expressions", "traditional medicines", "indigenous knowledge", "heritage of indigenous people", and "cultural diversity". Because these concepts emerged at different times and for different purposes, it is difficult to clearly delineate their meanings. As a result, confusion exists among international institutions and national governments as to whether and what extent the subject matters they seek to protect overlap. It is not clear, for example, what the differences are between the term "intangible cultural heritage" used by UNESCO and the term "traditional cultural expressions" used by WIPO. Equally unclear is the distinction between "indigenous knowledge" and "traditional knowledge", which have been used by WIPO and UNPFII either interchangeably or differently depending on the context.[106] While there have been attempts to clarify the relationship between some of the terms,[107] none enjoys universal acceptance and terminological uncertainties remain.

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105. See M. PROST and P.K. CLARK, "Unity, Diversity and the Fragmentation of International Law: How Much Does the Multiplication of International Organizations Really Matter?" (2006) 5 Chinese Journal of International Law 341 (arguing that for the multiplicity of international organizations to weaken the unity of international law, there must be (1) duplication of competences, (2) conflicts resulting from such duplication, and (3) such conflicts must be of normative significance).

106. WIPO points out that the term "indigenous knowledge" can be understood in two ways. It is used either to describe the knowledge held and used by communities, peoples, and nations that are indigenous, or to denote knowledge which is itself indigenous, in the sense of specifically originating from a certain region or country. In the latter sense, the terms "indigenous knowledge" and "traditional knowledge" may be interchangeable: *WIPO Fact-Finding Report*, *supra* note 68 at 23–4.

107. According to WIPO, "expressions of folklore" are a subset of "traditional knowledge". "Traditional knowledge" is, in turn, a subset of the broader concept of "heritage". "Indigenous knowledge", being the TK of "indigenous peoples", is also a subset of "traditional knowledge". As some "expressions of

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The diversity of TK-related terms is just one aspect of the terminological confusion caused by fragmentation. Another is the diversity of definitions of the term "traditional knowledge". There is no universally accepted definition of "traditional knowledge". Akin to the variety of terms, the variety of definitions also reflects the varying priorities and policy focus of each institution. For example, WIPO defines "traditional knowledge" in two ways. There is "traditional knowledge" in a broad sense (or TK *lato sensu*), which covers both the content of the knowledge and the expressions of that knowledge;[108] and "traditional knowledge" in the strict sense (or TK *stricto sensu*), which refers to "the content or substance of traditional know-how, skills, practices and learning" only.[109] These definitions were formulated for the limited purpose of IP protection. They are to be contrasted with the broader definition of TK provided by the CBD Secretariat, namely "a body of knowledge built by a group of people through generations living in close contact with nature", which includes "a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use".[110] This definition was formulated for the purpose of identifying relevant ecological knowledge for its preservation under the CBD.

The lack of clear demarcation among TK-related concepts and the lack of universal understanding as to what constitutes "traditional knowledge" make it difficult for relevant organizations to identify the areas in which their competences overlap, and thus the areas in which they should seek collaboration. The lack of adequate collaboration may, in turn, lead to the duplication of effort or inconsistencies in approaches to TK protection.[111] This is not to suggest that we need a single, precise definition of TK or clear-cut distinctions among different terms,[112] or that tackling fragmentation would help resolve all terminological confusion.[113] It does indicate, however, that scholars need to pay greater attention to the effects of fragmentation in the way TK is perceived by different institutions and how these different perceptions interrelate, so as to foster inter-institutional co-operation in the future.

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folklore" are created by indigenous persons, there is an overlap between "expressions of folklore" and "indigenous knowledge", both of which are forms of TK: *ibid*., at 26.

108. TK *lato sensu* is defined as "tradition-based literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks, names and symbols; undisclosed information; and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields": *ibid*., para. 25.

109. *Traditional Knowledge: Policy and Legal Options*, WIPO Doc. WIPO/GRTKF/IC/6/4 (2003), para. 57.

110. *Traditional Knowledge and Biological Diversity, Note by the Executive Secretary*, UNEP Doc. UNEP/CBD/TKBD/1/2 (1997), para. 87.

111. See further discussion below.

112. This may in fact prove to be an impossible and elusive task. It has been suggested that "it may only be possible (or desirable) to settle on a particular definition in the context of a specific legal instrument and with a defined policy goal": WIPO Doc. WIPO/GRTKF/IC/3/9, *supra* note 4, para. 11.

113. There are other factors which contribute to the confusion, including the multifaceted nature of the TK itself and the multitude of stakeholders (other than international organizations) bringing their diverse understandings of TK to the negotiating table. This explains why the meaning of "traditional knowledge" is highly contested, even within each institution, let alone among them.

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A good way to comprehend the effects of fragmentation on conceptions of TK is to look at how TK issues are framed and characterized by each institution. Generally speaking, WIPO and WTO perceive TK as an "intellectual asset"[114]—an item of "property" or commodity tradable within a market economy. In contrast, UNESCO perceives TK as an important constituent of "culture" and a "common heritage of humanity". CBD and UNCTAD perceive TK as a set of "tools" for conservation and development, respectively. In a different light, UNPFII perceives TK as an aspect of "human rights", or more specifically of cultural rights. As we shall see, these different mindsets or paradigms[115] significantly influence the crafting of the policy goals and legal rules of each institution.

B. *Diversity of Objectives*

Multiple objectives in relation to TK protection are being pursued by many organizations. These objectives now include the prevention of misappropriation and biopiracy, the preservation of TK from the deculturating forces of globalization, the protection of indigenous peoples' rights, the equitable sharing of the benefits arising from the use of TK, the preservation of TK for scientific and social development and environmental conservation, and the maintenance of the long-term viability of natural ecosystems.

These objectives, like the choice of terms and definitions, reflect the different mindsets of the relevant institutions. For example, since WIPO generally conceives of TK as a form of property, its focuses on private property protection, "granting rights to individual innovators over innovations with commercial or industrial application".[116] In contrast, UNESCO has adopted the "common heritage of humanity" model, which perceives TK as belonging not to individuals but to humanity as a whole. This is reflected in UNESCO's focus on the identification, documentation, transmission, revitalization, and promotion of TK—that is, on its "safeguarding". These varying mindsets and objectives may conflict. For instance, documentation efforts based on the "common heritage" model may, by making TK publicly available, inadvertently facilitate its misappropriation by third parties, which the "private property model" seeks to prevent.[117]

The diversity of objectives also raises the question of priorities: are some objectives more important than the rest? This question is of great concern to national governments, especially those of developing countries, whose limited resources only allow for their participation in some (as opposed to all) organizations.

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114. WIPO, *The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore*, Background Brief No. 2 (undated) at 2.

115. Telesetsky points out that there are four "paradigms" of TK: (1) TK as intangible cultural heritage, (2) TK as a mechanism of sustainable development, (3) TK as an aspect of IP, and (4) TK as a commodity of a trade regime: A. TELESETSKY, "Traditional Knowledge: Protecting Communal Rights Through a *Sui Generis* System" in J.A.R. NAFZIGER and T. SCOVAZZI, eds., *Le patrimoine culturel de l'humanité / The Cultural Heritage of Mankind* (Leiden: Martinus Nijhoff, 2008), 297 at 301.

116. Razzaque and Ssenyonjo, *supra* note 5 at 402–3.

117. W. WENDLAND, "Intangible Heritage and Intellecual Property: Challenges and Future Prospects" (2004) 56 Museum International 97 at 102. See also UNCTAD, *Report of the UNCTAD-Commonwealth Secretariat Workshop on Elements of National Sui Generis Systems for the Preservation, Protection and Promotion of Traditional Knowledge, Innovations and Practices and Options for an International Framework* (2004) at 2 [*UNCTAD-Commonwealth Workshop Report*].

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More importantly, however, the variety of potentially overlapping objectives renders their clear distinction and the demarcation of each institution's efforts almost unattainable.[118] This may result in the duplication of their initiatives, or worse, inconsistencies in their approaches aimed at the same subject matter. One of the many examples of duplicated efforts is the International Technical Workshop on Indigenous Traditional Knowledge organized by UNPFII in 2005,[119] which has significant overlaps, in terms of issues covered and the aim to promote more holistic understanding of TK, with the workshop on *sui generis* protection of TK organized by UNCTAD and the Commonwealth Secretariat one year earlier,[120] but the later event did not make any reference to the earlier one, let alone have representatives from UNCTAD attend the discussion.[121]

The fact that certain TK-related principles are being applied by more than one organization also increases the risk of inconsistency. As seen in Part I, the principle of access and the equitable sharing of benefits are being discussed in both UNEP (in the context of the CBD) and in FAO (in the context of the ITPGR). The principle of "common heritage of humanity", which initially emerged in UNESCO, has also been taken up by FAO when formulating the ITPGR. In the absence of effective co-ordination, there is a possibility that the same principles will be inconsistently applied across different fora, thereby creating legal uncertainty that is not conducive to the effective protection of TK.

It can be argued that having two or more organizations pursuing the same goals or applying the same principles may in fact help promote the convergence of approaches, since it presents an opportunity for them to enter into a strategic partnership. In other words, overlaps of competences may not necessarily translate into competition.[122] However, for this to happen, the relevant organizations must consciously, and actively, seek collaboration with one another. Each organization must also know where it stands in terms of the scope of its competence in relation to the other. Unfortunately, thus far there appears to be neither adequate collaboration nor mutual awareness of competences among the organizations. It is true that there have been collaborative efforts among the UN agencies (the WIPO-UNEP and WIPO-UNESCO collaborations are prime examples[123]), but the extent to which such efforts can mitigate the adverse effects of fragmentation is questionable not least

118. Many scholars have voiced similar concerns. See e.g. Razzaque and Ssenyonjo, *supra* note 5 at 402 (noting that different international institutions are "pursuing different priorities … The lack of agreement among the parties to these international processes has resulted in a slow pace of progress in [ensuring adequate protection for TK]").

119. See *Report of the International Technical Workshop on Indigenous Traditional Knowledge*, UN Doc. E/C.19/2006/2 (2005).

120. See *UNCTAD-Commonwealth Workshop Report*, *supra* note 117.

121. Various UN agencies were represented at the UNPFII workshop (e.g. WIPO, UNEP, WHO, and UNESCO), but other relevant agencies such as UNCTAD and FAO were not represented. See UN Doc. E/C.19/2006/2, *supra* note 119.

122. See Prost and Clark, *supra* note 105.

123. See A.K. GUPTA *et al.*, *WIPO-UNEP Study on the Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Associated Traditional Knowledge, Study No. 4*, WIPO Publication No. 769(E) (2004). See also *UNESCO-WIPO Model Provisions*, *supra* note 27.

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because each forum is likely to have an in-built institutional bias towards "[advancing their] bureaucratic agenda in favour of institutional growth".[124]

In any case, effective protection of TK at the international level would require more than just ad-hoc collaboration among a few organizations. We need an integrated, comprehensive, and coherent global framework for TK protection—a "global TK project", whereby all relevant organizations collectively work towards a common goal, however loosely defined that goal might be. It should be noted that this is not a new vision; many legal scholars have been articulating their ideas of the "global TK project" in one way or another since TK first entered the international debate. Many believe that the different paradigms of TK are actually different sides of the same cube, which renders their conceptual division artificial.[125] However, few have attempted to carve out the details of what this global TK framework should look like; and for those who have attempted to do so,[126] their efforts are in large part either incomplete or impractical, not least because of the complexity of the issues involved. They were, in other words, faced by the challenge of the fragmentation of international law and, as a result, workable solutions to settle the divergence of perceptions have been slow to emerge.

Whilst the detailed examination of what this "global TK project" should look like lies beyond the scope of this paper, it is worth pointing out that the success of such a collective endeavour is largely dependent upon acute understanding of existing problems and of the shared goal of TK protection. Put differently, to assemble the TK "jigsaw pieces" together, one must be fully aware of the shapes and parameters of all pieces, while having clearly in mind "the overall TK picture" that one seeks to construct.[127] Regrettably, yet unsurprisingly, recent practices have suggested that neither the parameters of the "TK pieces" (that is, the scope of each organization's competence) nor the "overall TK picture" (that is, the common goal of TK protection) are sufficiently clear today, which is at least partially attributable to the fragmentation of international law.

C. *Multiplicity of Beneficiaries*

Thus far, we have discussed the impact of fragmentation on the perception of what TK is and why it deserves protection. It is noteworthy that the questions of *what* is to be protected and *why* are inextricably linked with the question of *who* should benefit

124. C. DEERE, "Reforming Governance to Advance the WIPO Development Agenda" in J. DE BEER, ed., *Implementing WIPO's Development Agenda* (Waterloo, ON: Wilfred Laurier University Press / Centre for International Governmance Innovation / International Development Research Centre, 2009), 43 at 45.

125. J. RECHT, "Hearing Indigenous Voices, Protecting Indigenous Knowledge" (2009) 16 International Journal of Cultural Property 233 at 235. See also Telesetsky, *supra* note 115 at 321–2 (noting that "the efforts of an international organization cannot be reduced to a single paradigm since there is quite a bit of cross fertilization between specialized organizations").

126. Drahos proposes an enforcement-based framework for TK protection supported by what he calls a "global bio-collecting society": Drahos, *supra* note 5.

127. A similar analogy is provided by Girsberger, who suggests that different measures adopted by different fora can, if crafted carefully, "represent pieces of a larger puzzle resulting in a comprehensive protection of [TK]": Girsberger, *supra* note 5 at 142–3.

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from TK protection. The answers are also affected by fragmentation. Interestingly, some international institutions have focused exclusively on particular groups of beneficiaries. UNCCD, for example, only mentions the TK of "local communities", while UNPFII and ILO focus on the TK of "indigenous peoples". CBD, on the other hand, mentions the TK of both "indigenous and local communities", while maintaining that the sovereign rights over genetic resources and associated TK belong to states. In contrast, while FAO (in the context of ITPGR) recognizes both local and indigenous communities as holders of TK, it places an emphasis on the TK of traditional "farmers".

Like the choice of terms and objectives, these different choices of the beneficiaries of TK protection reflect the diverse policy goals of the organizations. More fundamentally, they appear to be the product of evolving politics inherent in the global efforts to protect TK, whereby different interest groups are forged across different fora at different times with varying degrees of influence. Initially, owing to the dominance of countries with a significant number of indigenous minorities, such as Australia and Canada, the international discussions on TK often took place under the rubric of "indigenous knowledge", and were closely linked with the discussions about indigenous peoples' rights. As the debate progressed, however, other countries—the Asian countries in particular—began to take an interest in TK and pushed for the recognition of the rights of "farmers" and "local communities" which are not "indigenous" per se, but are perceived as legitimate holders of TK. These different groups of interests are now expressed and realized simultaneously in different fora (or even within an individual forum),[128] giving rise to difficult legal and policy questions regarding their distinctions,[129] and how to accommodate adequately (and avoid homogenizing) their demands.[130] Given the ambiguous relationship between the categories of beneficiaries and the current tendency in the discussions to

128. This is particularly apparent in the negotiations at WIPO, where different countries brought to the table their different perceptions of who should be the beneficiaries of TK protection. The list of potential beneficiaries of TK protection now includes individuals, families, indigenous peoples, local communities, and even nations. See WIPO Doc. WIPO/GRTKF/IC/24/4, *supra* note 63, Annex, art. 2 at 12.

129. One legal consequence of such a distinction is that those TK holders who are classified as "indigenous peoples" may have their rights recognized under existing international human rights instruments relating to the rights of indigenous peoples, while non-indigenous TK holders such as "local communities" and farmers may not receive the same recognition. See A. MEYER, "International Environmental Law and Human Rights: Towards the Explicit Recognition of Traditional Knowledge" (2001) 10 Review of European Community & International Environmental Law 37 at 42 (noting that "local groups have yet to find recognition in the human rights arena, which is perhaps due to the fact that they do not claim basic rights such as the right to self-determination, autonomy or … the recognition of traditional land rights").

130. It has been pointed out that "local communities" and "indigenous peoples" generally have different needs owing to their different historical and political backgrounds: while the demands of indigenous peoples in former colonies can be summarized as being a general struggle for self-determination, the same cannot be said for local communities who are generally more integrated into modern societies: N. BRAHY, *The Property Regime of Biodiversity and Traditional Knowledge: Institutions for Conservation and Innovation* (Bruxelles: Larcier, 2008) at 291. For this reason, many critical scholars have warned against homogenizing the needs and expectations of TK holders. See e.g. R.J. COOMBE, "Cultural Agencies: The Legal Construction of Community Subjects and Their Properties" in Biagioli *et al.*, *supra* note 65 at 79; J. ANDERSON, *Law, Knowledge, Culture: The Production of Indigenous Knowledge in Intellectual Property Law* (Cheltenham: Edward Elgar, 2009).

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essentialize their needs,[131] there is a real danger that states are negotiating on a different matter, believing that they are referring to the same one.

While these problems are not directly caused by the fragmentation of international law per se, they are aggravated by the multiplication of international fora, which provides platforms for the expressions of different interest groups. This is sustained by the lack of adequate co-ordination among the existing fora, which inhibits the mutual understanding regarding the needs of different groups of TK holders among, and within, the fora. This suggests that the promotion of mutual understanding among the relevant fora regarding the needs and expectations of TK holders could help resolve at least some of the confusion concerning beneficiary allocation.

What this paper has sought to do thus far is to offer a modest examination of how the fragmentation of international law complicates the question of what TK is, why it deserves protection, and for whose benefits TK protection should serve. Beyond these substantive matters, the fragmentation of international law also raises many administrative questions, to which we now turn.

D. *Inconsistency in National Positions and Selective Participation*

What scholars often overlook when assessing the difficulties of TK protection are the implications of fragmentation for national governments. The anecdote in the opening paragraph of this paper is only one of the many instances where TK-related discussions among relevant national agencies become deadlocked. Of course, one may ask: how are confusions at the national level related to fragmentation of international law? In response to this question, the following paragraphs will seek to demonstrate that confusion at the national level may simultaneously be a cause, and a consequence, of the fragmentation of international law.

Let us first look at how international organizations generally function. When speaking of international organizations, one must not forget that they are entities created by states as platforms for organizing their collective co-operation on specific matters, and accordingly international organizations are "entirely defined by the *function*, or purpose, for which they have been created".[132] Whilst international organizations can influence the interests and knowledge of its members, they remain essentially an agent of the states, and as such their mandates and parameters of competence are almost always dictated by the will of their members.[133]

Therefore, inconsistency in the views of Member States regarding TK protection across different fora would likely lead to inconsistency in the policies and work programmes of these fora. In this way, the confusions regarding the nature of TK and

131. Cowan *et al.* refer to this as "strategic essentialism" that serves a political need to maintain a unified voice among diverse TK holders: J.K. COWAN *et al.*, *Culture and Rights: Anthropological Perspectives* (Cambridge: Cambridge University Press, 2001).

132. Prost and Clark, *supra* note 105 at 355, emphasis in original.

133. There is a lively debate about the scope of international organizations' power—whether they perform merely "operational" functions or whether they possess "normative" competences (that is, power to act independently from states and behave as norm-makers)—the discussion of which lies beyond the scope of this paper. See generally J. KLABBERS, "International Institutions" in Crawford and Koskenniemi, eds., *supra* note 103 at 228.

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the objectives of its protection at a national level can make their way into international discussions. This process is facilitated by the fact that the government representatives who attend a meeting in, say, UNESCO, are usually not the same representatives who attend similar meetings in WIPO, FAO, or CBD. Needless to say, this is because national administration is often organized in such a way that each ministry is responsible for specific issues within their mandates, not unlike international organizations. For Thailand, the Ministry of Culture and the Ministry of Education are almost exclusively responsible for the activities of UNESCO, whereas the Ministry of Commerce (the Department of Intellectual Property in particular) is responsible for WIPO's meetings. Like the international organizations, these ministries have different views as to what TK is and what should be the objectives for its protection. Naturally, therefore, their views articulated at different fora are likely to reflect the policy focus of their own agencies. In this sense, the fragmentation of views among national agencies can be perceived as the origin of fragmentation of international legal rules, at least insofar as those international legal rules are directly affected by the views of the states.

Thus, ensuring that national positions represented at different fora by different agencies are coherent and consistent would go some ways towards resolving the inconsistency in the approaches of different fora. Unfortunately, as previously mentioned, finding a common national position on a matter as complex as TK among several governmental agencies is difficult to say the least. In Thailand, there have been talks about setting up a national co-ordinating body to deal specifically with TK issues, but none have led to concrete actions or solutions. The task of national co-ordination now rests with the Ministry of Foreign Affairs whose expertise lies—not with IP, human rights, cultural heritage, or environmental laws—but with diplomacy. Better national co-ordination is certainly needed to ensure coherence in national positions across different fora.

However, it would be wrong to conclude that the burden of tackling fragmentation lies solely with national governments. In reality, international organizations themselves can do much to help address the fragmentation of international law. This is because, whilst international organizations rely on their Member States for clear policy directions, the Member States themselves are, at the same time, reliant upon the expertise and assistance of the international organizations. This dual relationship between states and international organizations suggests that the fragmentation of approaches among the international organizations can also make its way into domestic discussions. Indeed, this is particularly true for Thailand, where various agencies are struggling to make sense of such terms as "intangible cultural heritage" and "traditional cultural expressions", which are commonly used in international discussions, but have no equivalent in Thai. At least for Thailand, the explosion of TK-related terms at the international level seems to be partially responsible for the terminological confusion at the domestic level and, as such, an equal burden to tackle fragmentation lies upon the international organizations themselves.

Let us now consider the effect of fragmentation from another perspective. One obvious consequence of the multiplication of international fora working on TK is that some governments (especially those of developing countries) cannot be fully engaged in all fora owing to their limited resources. Ultimately, they may have to

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focus on the forum(s) which they believe are most relevant to their domestic concerns, and would give the best value for money.[134] This may result in resources and efforts being directed towards one forum at the expense of other forum's programme development, leading to disparity in institutional capacity, and to certain aspects of TK protection being overlooked.

Related to this is the ongoing debate about which forum is most qualified to discuss TK issues. Given WIPO's IP-centred mandate, many have questioned whether it is a suitable forum to deal with a subject matter as multifaceted as TK.[135] Similarly, it has been argued that the TK issue does not involve trade, and therefore addressing it in the WTO would be inappropriate.[136] UNESCO or UNCTAD might be a better place to discuss TK issues, given that they have a more holistic conception of TK, yet they cannot adequately respond to the concerns about biopiracy and misappropriation of TK. At present, legal scholars are still divided as to whether there could or should be a new international body that deals comprehensively with TK issues.[137]

Such a body may help bridge the current fragmented efforts, but there is a possibility that it might aggravate, rather than solve, the problem of fragmentation, partly because the mandate of this new agency will be set by the states whose goals regarding TK protection are, as discussed above, still confused. It is also unlikely that this new agency would have the same level of expertise and experience which existing organizations possess.[138] Further, its establishment would put additional strain on the already limited funds available to the international organizations, thus potentially leading to all fora being worse off in terms of capacity and knowledge development. To this extent, having a new body may in fact be counter-productive to the global effort to protect TK. Therefore, instead of talking about a new organization, it seems more worthwhile to talk about the ways in which effective synergies can be promoted among existing ones, especially when there is an alternative option of having an existing forum co-ordinate and initiate necessary collaborative efforts with other fora.[139]

III. THE WAY FORWARD

This paper has sought to demonstrate how the global efforts to protect TK are affected by the fragmentation of international law. It first investigated the

134. Twarog has identified some factors which may influence the governments' choice of forum, noting that "[w]hile many [developing countries] consider the CBD to be the forum most sympathetic to their perspective, WIPO has technical expertise on [IP,] and WTO, with its dispute settlement mechanism, has 'teeth'": Twarog, *supra* note 99 at 61.

135. See e.g. OseiTutu, *supra* note 11.

136. See comment of Canada in *The Protection of Traditional Knowledge and Folklore: Summary of Issues Raised and Points Made*, WTO Doc. IP/C/W/370/Rev.1 (2006), para. 14.

137. See e.g. A. VAN DER MERWE, "Can Traditional Knowledge be Efffectively Covered Under a Single 'Umbrella'?" (2010) 13 Potchefstroom Electronic Law Journal 2.

138. As the Commission on Intellectual Property Rights (UK) notes, "no single body is likely to have the capacity, expertise or resources to handle all aspects of [TK]": *Integrating Intellectual Property Rights and Development Policy*, Report of the Commission on Intellectual Property Rights (2000) at 78.

139. WIPO seems to have recently assumed this admirable role, by (among other co-ordinating efforts) engaging in a comprehensive dialogue on TK protection and the rights of indigenous peoples with the UNPFII at the Eleventh Annual Session of the UNPFII, New York, 7–18 May 2012.

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historical development of TK-related discussions and highlighted the fragmentation in this field (Part I), before examining the consequences of such a fragmentation (Part II). Given the breadth of the topics covered, there are risks of overgeneralizing or overemphasizing certain issues. Nevertheless, it is only by doing so that one can uncover the problems associated with fragmentation, which has thus far received inadequate attention from scholars and practitioners in this field.

Through the process of fragmentation, "traditional knowledge" has become a complex and heavily loaded concept, the objectives for its protection have multiplied, and the notion of "beneficiaries" has become highly contested. Moreover, the proliferation of international organizations and their functional specialization have made it difficult for national governments to keep up with the developments in all fora, and to maintain the consistency in their negotiating positions across the fora. In this situation, there are real risks that the global efforts to protect TK will, if they have not already, become incoherent and thus ineffective. This is particularly worrying when one considers that, at present, many fundamental issues—such as what is to be protected, what is it to be protected from, for whose benefit, and for what purposes—remain largely disputed. In short, we seem to be *lost in fragmentation*.

Yet the way out of this seemingly hopeless path may lie in the fragmentation itself. Importantly, this paper does not perceive fragmentation as an insurmountable crisis, but as a challenge capable of being turned into opportunity. As hinted above, fragmentation—that is, the multiplication of international organizations working on TK and the diversification of legal rules and approaches—can be advantageous insofar as it helps to create a pool of knowledge regarding TK protection and allows each forum to specialize and organize themselves together into a healthy degree of "division of labour".[140]

Nevertheless, to harvest the benefits of fragmentation successfully, a number of conditions must be met. First and foremost, there must be a common understanding among the relevant organizations about the common goal which they are pursuing. Such a goal, however loosely defined it might be, should be based on shared principles among the fora. These principles could include, at least, the principles of prior informed consent and equitable benefit-sharing discussed above, which seem to have emerged as common principles in various fora.[141]

Second, there must be proactive inter-institutional dialogue, so as to promote mutual understanding and respect among the relevant organizations. This includes closely following the developments that are taking place in other fora to minimize the

140. Cf. the emerging concept of "international legal pluralism", according to which different actors must respect and cherish the "legitimate difference" among them, while "recalling the importance of unity in crafting rules, developing procedures, [and] building institutions": W.W. BURKE-WHITE, "International Legal Pluralism" (2003–04) 25 Michigan Journal of International Law 963 at 979.

141. See Meyer, *supra* note 129 at 46 (arguing that these two principles should guide any further development relating to TK protection because they "represent an important understanding of the essence of any protection of [TK]" and are "common principles in both international environmental and human rights law").

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risk of duplication and inconsistency of approaches.[142] Legal scholarship emerging from fragmentation in other fields of international law has suggested that, for the best results, inter-institutional co-operation should be sought at all stages of negotiation, implementation, and adjudication.[143] One way to promote proactive inter-institutional dialogue is through the use of a "memorandum of understanding" such as the one concluded between the CBD Secretariat and WIPO in 2002.[144]

Third, all fora must endeavour to fulfil their own tasks—the "pieces" of the TK jigsaw for which they are responsible—in good faith and in a manner which is mutually supportive and complementary.[145] Last, but not least, national governments must work on improving the co-ordination among relevant national agencies to ensure that their negotiating positions are consistent across all fora. This applies equally to other stakeholders who participate in international negotiations on TK protection, including NGOs and indigenous groups.

All the above conditions, if met, would help ensure that the unity of global efforts to protect TK is achieved. Of course, they are not easy to fulfil, especially when existing fora are becoming increasingly specialized. As Abi-Saab notes, the more specialized each forum becomes, "the greater the need for the preservation of the unity of the whole that makes specialization possible and meaningful, but which becomes harder to maintain because of the centrifugal effects of specialization".[146] Achieving such a unity requires concerted effort from all stakeholders involved (secretariats of international organizations, government representatives, NGOs, indigenous groups, scholars, pharmaceutical companies, etc.). The success of this collective endeavour largely depends on a clear understanding by the participants of the problems, the processes, and the ultimate goals of TK protection. This paper does not claim to have clarified all the existing confusion, but it should have helped enhance understanding about the fragmentation of international law that is arguably the cause of many problems and confusions concerning TK protection today. This understanding can, in turn, provide a foundation on which effective and mutually beneficial synergies can be built.

The fragmentation of international law in the field of TK protection has thus far received insufficient scholarly attention. In view of the continuing expansion of the

142. The same suggestion is made by Brazil, the African Group, and Venezuela in the TRIPS Council. See WTO Doc. IP/C/W/370/Rev.1, *supra* note 136, para. 15. See also the Report of the Commission on Intellectual Property Rights, *supra* note 138 at 78.

143. Young has argued that these three stages (which she sees as part of the "process" of international law) are all affected by the fragmentation of international law: Young, *supra* note 101 at 17.

144. *Memorandum of Understanding Between the Secretariat of the Convention on Biological Diversity and the World Intellectual Property Organization* (text available in *Approval of Agreements with Intergovernmental Organizations: Memorandum of the Director General*, WIPO Doc. WO/CC/48/2 (2002), Annex I). The objective of this Memorandum of Understanding is "to enhance cooperation between the CBD Secretariat and WIPO on intellectual property issues concerning access to genetic resources and benefit-sharing and the protection of [TK]" (art. I) through, *inter alia*, ensuring respective participation at each other's meetings (art. II(3)), and exchanging information regarding activities of relevance to their respective mandates (art. III).

145. Girsberger makes a similar suggestion in the context of the protection of TCEs ("[to preserve the unity of efforts,] the objectives and scope of the various international instruments addressing the protection of TCE and related matters, whether already adopted or to be concluded in the future, [must be] mutually supportive and complementary"): Girsberger, *supra* note 5 at 140.

146. Abi-Saab, *supra* note 100 at 925.

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legal landscape and the gravity of existing problems, more attention is certainly needed. There are many aspects of fragmentation which can benefit from further research, including the relationship between existing international legal instruments (e.g. whether they are in conflict and how these conflicts can be reconciled)[147] and the legal basis for inter-institutional co-operation (e.g. how to deal with issues of the varying membership and exclusivity of a forum, and how to promote "regime interaction").[148] Shedding further light on these topics would go a long way towards promoting unity in the global project to protect TK.

Taking the above discussions into consideration, one can hardly escape the conclusion that TK protection at the international level is very much a work in progress. Collective experimentation is being carried out, and options tested, in a global laboratory called fragmentation. It remains to be seen what will result from the ongoing negotiations at WIPO, but whatever it is, it will likely be just another "piece" of the TK puzzle, which requires careful placing among existing TK-related initiatives. In the absence of a sufficiently clear common goal, the risks of incoherence, duplication, and collisions of legal norms remain. There is thus a real need to put more earnest effort into formulating that goal and the framework of co-operation through which it could be diversely, yet harmoniously, pursued. It is only when we convert diversity into opportunity and, ultimately, fragmentation into harmony, that we can resolve this "age-old problem that is getting worse with time"[149] once and for all.

147. The International Law Commission suggests that "increasing attention will have to be given to the collision of norms and regimes and the rules, methods and techniques for dealing with such collisions": *ILC Study Group Report*, *supra* note 3, para. 493.

148. Young has identified a number of obstacles to "regime interaction" in the field of fisheries governance, including the exclusivity of forum, the lack of transparency and openness, and the need for parallel membership: Young, *supra* note 101 at 258–66.

149. M.J. BALICK, "Traditional Knowledge: Lessons from the Past, Lessons for the Future" in C.R. MCMANIS, ed., *Biodiversity and the Law: Intellectual Property, Biotechnology and Traditional Knowledge* (London: Earthscan, 2007), 280 at 294.

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