Centre for International
Governance Innovation

CIGI Papers No. 185 — August 2018

Tiered or Differentiated Approach to Traditional Knowledge and Traditional Cultural Expressions

The Evolution of a Concept

Chidi Oguamanam

Centre for International
Governance Innovation

CIGI Papers No. 185 — August 2018

Tiered or Differentiated Approach to Traditional Knowledge and Traditional Cultural Expressions

The Evolution of a Concept

Chidi Oguamanam

CIGI Masthead

Centre for International Governance Innovation

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org

Table of Contents

About the Author

Chidi Oguamanam is a CIGI senior fellow and an expert in global intellectual property (IP) law and policy frameworks. He is currently researching emerging policy and governance issues on the protection of traditional knowledge (TK) of Indigenous peoples and local communities, including the role of technology in the generation of and access to data, as well as the transformation of data governance into a crucial subject matter for TK and access and benefit sharing (ABS) of genetic resources. He is also researching the legal and policy prospects of the novel notion of tiered and differentiated approaches to the protection of TK.

With bar membership in Nigeria and Canada, and an IP and corporate law practice background, Chidi obtained his graduate degrees at the University of British Columbia and started his academic career at Dalhousie University. He is currently a full professor at the University of Ottawa, where he is affiliated with the Centre for Law, Technology and Society, the Centre for Environmental Law and Global Sustainability, and the Centre for Health Law, Policy and Ethics. A dedicated interdisciplinary scholar, Chidi teaches and conducts research in areas that include IP law, global knowledge governance systems and their ramifications for Indigenous and Western knowledge productions in diverse contexts such as food and agriculture, biodiversity conservation, culture, entertainment and creativity, medicines and pharmaceuticals, and environmental sustainability as part of the international development law and policy narrative. In 2016, he was named to the Royal Society of Canada College of New Scholars, Artists and Scientists. He is a co-founder of the Open African Innovation Research project and leads a number of research initiatives such as the Access and Benefit Sharing Canada (ABS Canada) project.

Chidi is a speaker and public commentator on global affairs from African and development perspectives. He also provides technical and expert consulting and support services for states and sub-state actors, non-governmental organizations, intergovernmental bodies, and Indigenous and local communities in developed and newly industrializing countries and elsewhere. He is the author of *International Law and Indigenous Knowledge: Intellectual Property, Plant Biodiversity and Traditional Medicine* (University of Toronto Press, 2006) and *Intellectual Property in Global Governance* (Routledge, 2011), and co-editor of *Innovation and Intellectual Property: Collaborative Dynamics in Africa* (University of Cape Town Press, 2014) and *Knowledge and Innovation in Africa: Scenario for the Future* (University of Cape Town Press, 2014). His forthcoming edited collection, *Genetic Resources, Justice and Reconciliation: Canada and Global Access and Benefit Sharing,* is to be released by Cambridge University Press in 2018. The book is a product of his work with ABS Canada.

Chidi has an LL.B. (Ife); BL and LL.M (Lagos), and LL.M and Ph.D. (British Columbia).

About the Program

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law.

The ILRP strives to be the world's leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program's mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world.

The ILRP focuses on the areas of international law that are most important to global innovation, prosperity and sustainability: international economic law, international intellectual property law and international environmental law. In its research, the ILRP is attentive to the emerging interactions among international and transnational law, Indigenous law and constitutional law.

Acronyms and Abbreviations

ABS	access and benefit sharing
CBD	Convention on Biological Diversity
FAO	Food and Agriculture Organization
GR	genetic resources
IGC	Intergovernmental Committee
ILC	Indigenous and local communities
IP	intellectual property
IPLC	Indigenous peoples and local communities
IPR	intellectual property right
LMC	Like-minded Countries
TCEs	traditional cultural expressions
TK	traditional knowledge
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
WIPO	World Intellectual Property Organization

Executive Summary

For nearly two decades, the World Intellectual Property Organization's (WIPO's) expert committee, known as the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) has been working to negotiate text-based legal instrument(s) for effective protection of the subject matters of genetic resources (GRs), traditional knowledge (TK) and traditional cultural expressions (TCEs), and their intersection with the intellectual property (IP) system. So far, the IGC experience reflects the intensity of the international process, geopolitical undercurrents and the power dynamics that characterize that process, especially as it relates to the subject of IP. Despite mixed responses across North-South geopolitical interests regarding the elongation of the IGC's deliberations and the continuing delay in the expected outcome from the forum, the latter has made substantive contributions to international IP law and policy making in relation to matters under its mandate. This paper identifies and explores the rationale for one of the major evolving contributions of the IGC, namely the notion of a tiered or differentiated approach to the protection of TK and TCEs. The paper provides the context for the evolution of the approach. Using various forms of TK/TCEs in select regional and national contexts, the paper discusses the empirical ramifications and challenges of the tiered and differentiated approach. The paper concludes that the approach provides a broad policy framework, although its details are contingent on many considerations, which are better addressed at national and local levels.

Introduction

The WIPO IGC has a clear, but extremely difficult mandate to negotiate text-based instrument(s) for the effective protection of GRs, TK and TCEs within the IP system.[1] WIPO's jurisdictional status as the host of the IGC is, in part, a fallout of the World Trade Organization's failure to include TK/TCEs in its negotiations and in the text of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS),[2] as well as the increasing economic and trade importance of TK/TCEs and GRs. Given the historic interest of the United Nations Educational, Scientific and Cultural Organization in TK and related matters such as folklore (TCEs), the jurisdictional ambit of the WIPO IGC is limited to the ramifications of GRs, TK and TCEs in the IP system. However, in recognition of the overlapping, or fluid, nature of these subject matters across diverse international regimes, member states and experts are required to ensure and respect the synergistic relationship of the resulting instruments and relevant regimes.

The difficulty of the IGC's task is not necessarily a factor of the contentious nature of the international IP policy-making process, the underlying ubiquitous geopolitical power relations or ideological schisms over knowledge governance.[3] Neither does it lie in the institutional factor of WIPO's Committee process in the complex regime ecosystem in which those subject matters are engaged.[4] Without question, those factors contribute to make the IGC's mandate a herculean task.[5] However, in addition to these issues, perhaps the most critical feature underlying the difficulty of the IGC project is the enigmatic nature of TK and, certainly, TCEs. TCEs have been and remain a unified or inherent component of TK. At WIPO and other fora, TCEs have been demarcated from TK as a conceptual matter. Both TK and TCEs are pragmatic terms of convenience and compromise

1 WIPO, *Matters Concerning the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore*, 55th Sess, Agenda Item 17 (2015), online: <www.wipo.int/export/sites/www/tk/en/igc/pdf/igc_mandate_1617.pdf>.

2 *Agreement on Trade-Related Aspects of Intellectual Property Rights*, 15 April 1994, (entered into force 1 January 1995).

3 See e.g. Christopher May & Susan K Sell, *Intellectual Property Rights: A Critical History* (Boulder, CO: Lynne Rienner, 2005); Kal Rustiala, "Density and Conflict in International Intellectual Property Law" (2007) 40 UC Davis L Rev 1021; Chidi Oguamanam, *Intellectual Property in Global Governance: A Development Question* (New York: Routledge, 2012) at 35 [Oguamanam, *Intellectual Property in Global Governance*].

4 Laurence H Helfer, "Regime Shifting: The TRIPS Agreement and New Dynamics of International Intellectual Property Lawmaking" (2004) 29 Yale J Int'l L 1–83; Peter K Yu, "International Enclosure, the Regime Complex, and Intellectual Property Schizophrenia" (2007) Mich St L Rev 1–33; Chidi Oguamanam, "Agro-Biodiversity and Food Security: Biotechnology and Traditional Agricultural Practices at the Periphery of International Intellectual Property Regime Complex" (2007) Mich St L Rev 215.

5 For an outlook on the more than decade and a half of negotiations at the IGC, see Daniel F Robinson, Ahmed Abdel-Latif & Pedro Roffe, eds, *Protecting Traditional Knowledge: The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge, and Folklore* (New York: Routledge, 2017).

because they do not even capture the breadth of the complexities of the relationships and nuances implicated in the experiences of their custodians and the undergirding worldviews. Even in that inchoate and often contested expression, TK and TCEs are sources of insights and invaluable knowledge for creativity and innovation that are scaled up through the agency of conventional fields of the IP system.[6] Notwithstanding the evident interface between the IP system and TK/TCEs, the latter remain a quandary of sorts.

The year 2018 marks 18 years of an intensive relay race of negotiations at the IGC. For old-time participants at the forum from both developed and developing countries, the failure at this stage to have (an) agreed text(s) is chilling.[7] This is especially the case for demandeur country and Indigenous Caucus experts (i.e., countries and stakeholders, especially from the Global South, as well as Indigenous peoples and local communities [IPLCs] elsewhere), who are committed to the imperative for an international legal framework for the protection of TK, GRs and TCEs.[8] For non-demandeur country experts and member states of WIPO, the protracted delays of the WIPO IGC to agree on the text(s) of instruments arising from its mandate is perhaps less disconcerting.[9] This is so because as non-demandeurs (mainly countries of the Global North), they came into the negotiation with little or no vested interest in a stronger TK/TCEs regime and its interface with IP and GRs. The practice of intemperate appropriation of GRs and associated TK, even TCEs, by corporate and research entities based in the Global South[10] (referred to as biopiracy[11]) through the instrumentality of the IP system, in part, necessitated the IGC's mandate. Save for a few countries in the Global North,[12] many others are equally reluctant and unconvinced participants in the IGC process.[13] For these categories, the status quo is desirable, as no outcome is perhaps a better outcome.[14]

Despite the above overview of the IGC experience, there are many ways in which the IGC has contributed substantively in the global and international IP policy space.[15] Charting the details of the IGC's contributions to the international IP regime complex[16] is not the preoccupation of this paper. However, it bears mentioning that the IGC continues to contribute to the elaborations of concepts, for example, those around prior informed consent, disclosure of source or origin of GRs and associated TK implicated in claims over IP (especially patents), not to mention the debate on the role of states and other stakeholders in relation to TK/TCEs and so forth.[17] Those issues are now part of the corpus of the emerging national and international IP landscape. As concepts and phenomena, those and many others explored at the IGC assist in grappling with the issue of the protection of TK/TCEs as a complex regime and a multidisciplinary subject matter. Thus, as an expert body, the IGC continues to illuminate, and to be illuminated by, ideas across other fora such

6 The interface of TK and innovations in the realm of pharmaceuticals, agriculture, chemicals and environmental conservation, which constitute the core of the biopiracy phenomenon, provides a pivotal site in which IP, specifically the patent regime, directly engages TK in a contestation over the applications of GRs across different knowledge frameworks.

7 Chidi Oguamanam, "Ramifications of WIPO IGC for IP and Development" in Robinson, Abdel-Latif & Roffe, *supra* note 5 [Oguamanam, "Ramifications"].

8 The official name of the IGC reflects folklore as the last item of interest, but through analytical evolution, folklore has since been substituted with the concept of TCEs, which is a more politically correct expression, even if not legally precise like folklore.

9 See Oguamanam, "Ramifications", *supra* note 7.

10 Often in collaboration with researchers and institutions that have links with the Global South, for example, as was the case in the failed US patent on turmeric (initially granted to WR Grace Inc.) in which US-based Indian researchers were instrumental. See Anu Bala, "Traditional Knowledge and Intellectual Property Rights: An Indian Perspective" (2011) SSRN, online: <https://papers.ssrn.com/sol3/papers2.cfm?abstract_id=1954924>.

11 Ikechi Mgbeoji, *Global Biopiracy: Patents, Plants, and Indigenous Knowledge* (Toronto: UBC Press, 2006); Daniel F Robinson, *Confronting Biopiracy: Challenges, Cases and International Debates* (London: Earthscan, 2010). See *supra* note 2 and accompanying text.

12 Worthy of mention here is the proactive role of Switzerland in the negotiating process as a perceived supporter of a balanced and overall pragmatic strategy for effective realization of the IGC's mandate.

13 For some of these countries, their participation takes a vigilante tenor, which focuses on ensuring that resulting instrument(s) do not constrain or disrupt the status quo on international IP, especially the patent regime.

14 Oguamanam, "Ramifications", *supra* note 7.

15 For diverse expert perspectives on the WIPO IGC's progress, contributions and pitfalls, see generally Robinson, Abdel-Latif & Roffe, *supra* note 5.

16 *Ibid*.

17 For example, among member states of WIPO and IGC expert negotiators, the issue of whether states could be included as beneficiaries of TK along with IPLCs gives rise to divergent perspectives. While the majority of non-demandeur countries do not believe that states could "own" TK or be officially recognized beneficiaries — a position favoured by the Indigenous Caucus — the majority of African Group member states and other regional blocs believe that states can own TK in some circumstances and are in a position to play an active role as beneficiaries.

as the Convention on Biological Diversity (CBD)[18] (including the Nagoya Protocol[19] and its precursors), the Food and Agriculture Organization's (FAO's) International Treaty on Plant Genetic Resources for Food and Agriculture,[20] and various other related WIPO Committee processes,[21] which the IGC is required to take into consideration.[22]

In addition, perhaps more than other similar settings, the IGC reflects the geopolitical tensions that characterize the international process, especially as it relates to international law making where the subject matters are essentially multidisciplinary.[23] Through the IGC, conventional geopolitical schisms are consolidated, while pragmatic or strategic alliances within geopolitical blocs are forged. For example, a number of tactical coalitions and negotiating blocs have emerged from the IGC, facilitating cross-regime partnerships in other fora in ways that help experts and stakeholders acquire a holistic sense of the interrelatedness of issues.[24] Negotiation blocs at the IGC include and traverse regional or geographical frames without compromising hardened North-South geopolitical dynamics. Some of the blocs include the African Group, the Group of Latin American and Caribbean Countries, and the Asia Pacific Group. All of the aforementioned coalesce, liaise or consult as the need arises under the auspices of the Group of Like-minded Countries (LMCs). Outside their natural geographical sphere, Japan and South Korea mainly align with the United States, Canada, Switzerland, Australia and others as Group B. In addition to that group, the Global North and industrialized countries are also constituted in the negotiating Group A, which comprises the EU bloc of countries. Aside from the European Union, there are the Central European and Baltic states. There is also the Russian Federation and China, with the latter aligning within its regional domain in Asia, often liaising, forging consensus and identifying with the LMCs on a contingent basis.[25] Finally, there is the Indigenous Consultative Forum and the Indigenous Caucus, which is a coalition of Indigenous peoples and interests across geopolitical boundaries. Of course, there are periodically accredited civil society organizations with cognate interests on the subject matters under the IGC mandate.

In contrast to similar fora, especially under the WIPO Committee process, the IGC's mandate traverses multiple interconnected, but simultaneously distinctive, and separate subject matters. Those subject matters also have ramifications for several regimes in which IP and related policies are made. As a result, the rich repertoire of deliberations from the IGC, as an expert body, have contributed substantively more to international IP law and policy making than analysts care to give the body credit for.[26] Therefore, even though the IGC has yet to result in a concrete outcome, the measure of its impact should not be limited to such an outcome or lack thereof.[27]

This paper identifies the context and explores the dynamic for the development of, arguably, one of the major contributions of the IGC to the jurisprudence over the protection of TK/TCEs within its intersecting mandate. That contribution refers to the novel idea of the tiered or differentiated approach to the protection of TK/TCEs, which is still a subject of ongoing

18 *Convention on Biological Diversity*, 5 June 1992, 1760 UNTS 79, 31 ILM 818 (entered into force 29 December 1993) [*CBD*], online: <www.cbd.int/convention/>.

19 *2010 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the 1992 Convention on Biological Diversity*, 29 October 2010 (entered into force 12 October 2014) [*Nagoya Protocol*], online: <www.cbd.int/abs/>.

20 See FAO, *International Treaty on Plant Genetic Resources for Food and Agriculture*, 3 November 2001, (entered into force 29 June 2004) [FAO, *Treaty*], online: <www.fao.org/plant-treaty/en/>.

21 See WIPO, "Standing Committee on the Law of Patents", online: <www.wipo.int/policy/en/scp/>; see also WIPO, Standing Committee on the Law of Patents, *Draft Substantive Patent Law Treaty*, online: <www.wipo.int/patent-law/en/draft_splt.htm>.

22 Pursuant to its mandate, the IGC is required to take into consideration developments in other international fora bearing relevance to its mandate.

23 Oguamanam, "Ramifications", *supra* note 7.

24 It is not unusual during informal consultations and liaisons among IGC expert delegations to identify issues that overlap in negotiations in other fora. As such, delegates are often able to pre-empt one another at the IGC and other such fora. A simple example is the subject of the disclosure of source or origin, which is also a contentious subject in the Design Law Treaty negotiations – a part of the WIPO Committee process.

25 A sense of the dynamic interaction of these coalitions can be felt through the comprehensive reports of the adopted IGC proceedings as prepared by the WIPO Secretariat. See e.g. WIPO IGC, 30th Sess, WIPO/GRTKF/IC/30/10 (2016), online: <www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_31/wipo_grtkf_ic_31_ref_30_10.pdf>.

26 Some of these contributions can be found in Robinson, Abdel-Latif & Roffe, *supra* note 5.

27 See Keith E Maskus & Jerome H Reichman, eds, *International Public Goods and Transfer of Technology Under a Globalized Intellectual Property Regime* (Cambridge, UK: Cambridge University Press, 2005); Jerome H Reichman, "Intellectual Property in the Twenty-First Century: Will the Developing Countries Lead or Follow?" (2009) 46 Hous L Rev 1115.

debate and elaborations at the IGC.[28] This paper explores the concept and sheds light on the rationale for the approach. It draws from three sites of TK/TCE production across regional lines, namely Africa (Ghana and Nigeria), Australia and North America (the United States and Canada) to understand the concept and to conjecture on its potential and practical application. The paper also points to the challenge posed by the evidentiary threshold for advancing the idea of a tiered or differentiated approach to TK/TCEs.

The paper concludes that the tiered or differentiated approach can, at best, serve as a broad policy framework that could be mapped at the international level as symbolized by the IGC. However, the details of its operation are contingent on many considerations, including, but not limited to, the specific form of TK/TCEs and the dynamic of Indigenous and local community (ILC) customary laws and protocols in regard to the cultural contexts of its custody, production and practices. Other factors relate to the evidentiary threshold on the level of diffusion of a given TK/TCE and the national and local contingencies of such experience, among others. Before exploring the background for the dawn of the tiered or differentiated approach, the terms "tiered" and "differentiated" are used interchangeably to mean the same thing. IGC experts make no distinction regarding the two, even though the tiered approach was the first favoured expression, while differentiated was introduced as a synonym[29] to simplify the notion of tiered perceived to be inherently technical to non-experts.

Tiered or Differentiated Approach in Context

The historic reluctance of colonial and industrialized powers over the protection of TK/TCEs is captured in multidisciplinary narratives of colonialism through the lens of the sociology of knowledge and science, anthropology, philosophy and critical social sciences in general.[30] Those will not be included here. However, an undergirding consensus in these multidisciplinary renditions is that under the Western or Eurocentric cultural hierarchies of power,[31] ILCs and a multitude of civilizations known conveniently as the "West's Other" possessed neither noteworthy intellectual and human ingenuity, nor an innovative culture.[32] Despite their ordinary endowment with natural resources,[33] their dealings with those resources were perceived as mundane or rudimentary and incapable of sifting or transforming those natural endowments from their natural state, i.e., the so-called state of nature. ILC insights, knowledge and practices as applied to various natural resources and in specific sites, such as agriculture, medicine, ecology, environmental stewardships and other catalogues of creative repertoires, were adjudged as lacking in human ingenuity and other criteria of protection under orthodox IP.[34] Aside from the self-serving failure

28 For an outline of the text of the tiered and differentiated approach to TK, see WIPO IGC, 32nd Sess, *The Protection of Traditional Knowledge: Draft Articles Rev 2*, WIPO/GRTKF/IC/32/4 (2016), online: <www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_32/wipo_grtkf_ic_32_4.pdf> [WIPO, *Draft Articles Rev 2*].

29 In its unofficial briefing note to the speakers at the WIPO Seminar on Intellectual Property and Traditional Knowledge, Roundtable 2 (November 23–25, 2016) held as a prelude to the 32nd WIPO IGC session at the WIPO Secretariat in Geneva, the Secretariat advised that the two concepts could be used interchangeably. See WIPO, *Informal Briefing Notes: Perspectives and Experiences on Tiered Approach to the Protection of Traditional Knowledge: Scope of Protection, Exceptions and Limitations* (3 November 2016).

30 See Chidi Oguamanam, "Pressuring 'suspect orthodoxy': traditional knowledge and the patent system" in Matthew Rimmer, ed, *Indigenous Intellectual Property: A Handbook of Contemporary Research* (Cheltenham, UK: Edward Elgar, 2015) 313–33 [Oguamanam, "Pressuring 'suspect orthodoxy'"]; Boaventura de Sousa Santos, ed, *Another Knowledge is Possible: Beyond Northern Epistemologies* (New York: Verso, 2007).

31 Olunfunmilayo B Arewa, "Piracy, Biopiracy, and Borrowing: Culture, Heritage, and the Globalization of Intellectual Property" (2004) Case Studies, Legal Research Paper No 04-19; see also de Sousa Santos, *supra* note 30; Albert Memmi, *The Colonizer and the Colonized* (London, UK: Earthscan, 1990); Makau Mutua, "Savages, Victims, and Saviors: The Metaphor of Human Rights" (2011) 42:1 Harv Intl LJ, 201–44.

32 See Chidi Oguamanam, "Local Knowledge as Trapped Knowledge: Intellectual Property, Culture, Power and Politics" (2008) 11:1 J World Intellectual Property 29 [Oguamanam, "Local Knowledge"]; de Sousa Santos, *supra* note 30; Jeremy de Beer et al, "Innovation, Intellectual Property, and Development Narratives in Africa" in Jeremy de Beer et al, eds, *Innovation and Intellectual Property: Collaborative Dynamics in Africa* (Cape Town: UCT Press, 2014) at 5–8.

33 Estimates indicate that more than 75 percent of global biological resources are found in the Global South and traditional or ancestral habitats of the world's ILCs. See e.g. Oguamanam, *Intellectual Property in Global Governance*, *supra* note 3.

34 Oguamanam, "Pressuring 'suspect orthodoxy'", *supra* note 30.

to recognize the value and contributions of TK/TCEs amid compelling evidence to the contrary,[35] many of the biological resources that constitute the pivot for the production of TK, even TCEs, are regarded as part of the global commons. In the words of Ruth Okediji, Harvard law professor:

> Armed with legal tools such as "the common heritage of mankind" and "the public domain", scientists and international institutions facilitated the development of a global knowledge infrastructure for research and innovation utilizing plant genetic resources and traditional knowledge. International regime for science and research coalesced around the view that those resources were part of an uncharted global commons that could — indeed should — be freely and methodically exploited.[36]

The public domain, or commons argument, and analogous legal constructs, such as common heritage, assail any serious attempt aimed at the protection of TK/TCEs within, or outside, the IP system, or so it seems. For starters, TK/TCE custodians and practitioners do not concede the lack of human ingenuity levelled against their knowledge, practices and innovation associated with their dealings and experiences with natural resources.[37] However, in the IGC context, they do not deny the importance of a vibrant public domain as a fundamental feature of sustainable knowledge production under the orthodox IP system, or even pursuant to customary laws and practices of IPLCs. Nonetheless, the issue or the nature of a public domain analogue in IPLC customary laws and practices has hardly been of interest in policy- or law-making circles. At the IGC, the issue of public domain features in the context of preambles, (policy) objectives and sometimes as counterpoise against the perceived inclination of TK/TCE proponents toward expansive rights claims but not as a dedicated matter. Without doubt, ILCs recognize that aside from natural diffusion, degradation and forms of knowledge migrations into the public domain,[38] several centuries of historic de-legitimation and exploitation of TK/TCEs that have resulted in their public availability have cast or conflated them, rather uncritically, as a global public good and part of the public domain.[39] However, the extent to which specific forms of TK/TCEs are wholly part of the public domain and, consequently, devoid of rights claims or attract limited, even if calibrated rights claims, as the case may be, takes on a differentiated or tiered tenor.

At the twenty-seventh IGC in 2014, courtesy of concerted initiatives of LMCs, including the African Group, the IGC expert negotiation captured the idea of a tiered or differentiated approach to TK/TCEs,[40] which was earlier explored by the LMC's Consultative Meeting in Bali, Indonesia, from March 10 to 12, 2014.[41] The result of that meeting was influential at the twenty-seventh deliberations of the IGC, where the chair, Ambassador Wayne McCook of Jamaica, leveraged it into one of

35 The first symmetric stone tools were invented in Africa. Historically, Africa is recognized as the "nest of many discoveries, inventions, creations and cultures" that have since catapulted human civilizations across the globe. In medicine, science and all facets of arts and creativity, African innovations serve as the forerunner of most revolutionary inventions and ideas that have shaped the trajectory of human civilization. Hero of Alexandria, Egypt, invented the first documented steam engine in the first century AD. See Shirin Elahi et al, eds, *Knowledge and Innovation in Africa: Scenarios for the Future* (Cape Town: Open A.I.R. Network, 2013) at 24–26; see also Yves Coppens, "Outstanding Universal Value of Human Evolution in Africa" in World Heritage Papers Vol 33 (Paris: UNESCO, 2012) at 14. Yet, in the colonial worldview, "[h]istorically, Africa is not part of the world; it cannot show evidence of any movement or development. The historic movements it displays – on the Northern region of the continent – belong to Asia and the European." See de Sousa Santos, *supra* note 30 at xxxv (quoting GWF Hegel, "Vorlesungen über die Geschichte der Philosophie" in E Moldenhauer & KM Michel, eds, *Werke in Zwanzig Bänden*, vol 3 [Frankfurt am Main: Suhrkamp Verag, 1970] at 193). This narrative or situating of Africa "was the counterpoint of the colonial requirement of transporting civilization and wisdom to peoples who lived in the dark recess of ignorance" (*ibid*).

36 Ruth L Okediji, "Traditional Cultural Expressions" in Robinson, Abdel-Latif & Roffe, *supra* note 5 at 3.

37 See *ibid*; see also de Sousa Santos, *supra* note 30; S James Anaya, *Indigenous Peoples & International Law*, 2nd ed (Oxford, UK: Oxford University Press, 2004) [Anaya, *Indigenous Peoples*].

38 See Michael F Brown, "Can Culture Be Copyrighted?" (1998) 39:2 Current Anthropology 193 [Brown, "Can Culture Be Copyrighted?"]; see also Michael F Brown, *Who Owns Native Culture?* (Cambridge, MA: Harvard University Press, 2004) [Brown, *Who Owns Native Culture?*].

39 For a progressive conceptualization of knowledge as a global public good, see Joseph E Stiglitz, "Knowledge as a Global Public Good" in Inge Kaul, Isabelle Grunberg & Marc Stern, eds, *Global Public Goods: International Cooperation in the 21st Century* (Oxford, UK: Oxford University Press, 1999), online: <http://wiki.p2pfoundation.net/Knowledge_as_a_Global_Public_Good>; see also Keith Maskus & Jerome H Reichmann, "The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods" (2005) 7:2 J Intl Econ L at 279–320.

40 Okediji, *supra* note 36.

41 For more detailed insight, see WIPO IGC, 27th Sess, WIPO/GRTKF/IC/27/10 (2014), online: <www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_27/wipo_grtkf_ic_27_10.pdf>. In addition to the 2014 Bali LMCs Consultative Meeting, historical excursion on the idea of a differentiated approach to TK is not complete without reference to the international consultative meeting of experts organized by the Government of India in January 2013 in New Delhi and India's interventions at the twenty-seventh session of the WIPO IGC.

the major cross-cutting issues between TK and TCEs: "the treatment of publicly available and/or widely diffused TK and TCEs."[42] It was further elaborated by McCook in his famous and well-received 51-page "Chair's Non-paper,"[43] which helped set up the twenty-seventh IGC as the forum that undertook the most elaborate deliberations on the tiered or differentiated approach (a term that was later adopted by the facilitators)[44] and has since continued to evolve.

The aim of the tiered approach is primarily to advance legal certainty and clarity on TK/TCEs and to address concerns over the subjects, especially from the rank of non-demandeurs in the IGC negotiations. Even though IPLCs frown at the fragmentation or classification of knowledge into pigeon holes, the tiered or differentiated approach provides the basis or framework for outlining different kinds of TK/TCEs in reference to the degree of their diffusion, or lack thereof, with respect to public access. The tiered approach is a pragmatic and malleable strategy that seeks to negotiate the extent of exclusive rights or non-exclusive rights that attach to the beneficiaries or claimants of TK/TCEs, as a factor of how much of those, or aspects thereof, may already be in the public domain.

There has yet to be a consensus on the understating of the approach by various IGC delegates. Nonetheless, many understand that the notion does not warrant the use or continued use of any TK/TCE forms without permission and accountability. Essentially, the tiered and differentiated perspective recognizes that some TK/TCEs are already in the public domain, albeit by default through various forms of diffusion and appropriation, be they legitimate (i.e., according to status quo) or not.[45] As such, there is no need for *ex post facto* attempts to force the genie back inside the bottle,[46] a situation that would scare hardline, and even moderate, non-demandeurs, justifiably or not. But that is not to say such TK/TCE forms could not attract other residual or calibrated rights, such as various forms of attribution rights, even reparation rights, especially for those that were diffused through theft and other forms of illegitimacy or misappropriation.

The enthusiasm, skepticism and reluctance that have greeted the tiered and differentiated approach mostly, if not entirely, reflect the usual schism between the demandeur and non-demandeur countries. The African Group, India, Indonesia and certainly the LMCs as a whole strongly believe that the tiered approach is an important cross-cutting issue that will assist with the protection of TK and TCEs in the variegated contexts of their diffusion and in ways that will not permit the use of elaborate exemptions and public domain arguments to undermine protection. Iran maintained that the notion of public domain is not compatible with the nature of TK and TCEs.[47] For Indonesia, the tiered approach is "one of the biggest breakthroughs that has been made in the discussion of TK during the present [twenty-seventh] session."[48] The Indigenous Caucus delegation has a reserved attitude toward the tiered and differentiated approach, insisting that irrespective of the level of diffusion, whenever TK and TCEs are erroneously placed in the public domain, Indigenous peoples' status as rights holders and their entitlement to compensation should not be compromised.

The European Union, United States, Japan, Thailand, Republic of Korea and Canada engage the concept with apprehension. Collectively, they express concern over its effect on a range of issues, such as

42 See WIPO IGC, 27th Sess, *Traditional Knowledge and Traditional Cultural Expressions: Certain Suggested Cross-Cutting Issues*, WIPO/GRTKF/IC/27/INF/10 (2014), online: <www.wipo.int/meetings/en/doc_details.jsp?doc_id=269068>.

43 See Wayne McCook, "Traditional Knowledge and Traditional Cultural Expressions: Certain suggested cross-cutting issues" (2014) Non-paper, online: <www.wipo.int/export/sites/www/tk/en/igc/pdf/igc_27_issues.pdf>.

44 See WIPO IGC, 27th Sess, *IGC 27 Report*, WIPO/GRTKF/IC/27/10 (2014), online: <www.wipo.int/meetings/en/doc_details.jsp?doc_id=279948> [*IGC 27 Report*]. Speaking on behalf of the facilitators, Nicolas Lesieur (Canada) noted that they "had sought to construct a tier-based framework that was itself based on the extent to which the TK was diffused and/or protected by beneficiaries, or not such that there were different levels of diffusion and protection" (*ibid at* para 97). The first articulation of the concept appeared in article 3 of both the Draft IGC Document on TK and TCEs that resulted from the twenty-seventh WIPO IGC in 2014.

45 See Okediji, *supra* note 36; Chidi Oguamanam, "Wandering Footloose: Traditional Knowledge and the Public Domain Revisited" (2018) J World Intellectual Property, online: <https://doi.org/10.1111/jwip.12096>.

46 But consider the famous retort by Preston Hardison, a prominent member of the Indigenous Caucus at the IGC and official representative of the Tulalip Tribes of Washington State, who insisted, analogously, that because Lady Gaga's music is widely diffused does not mean the artist or her assigns should forgo their copyright. Hardison rejects the genie-out-of-the-bottle argument if its objective is to facilitate appropriation of the TK/TCEs of indigenous peoples and local communities.

47 *Ibid* at para 56.

48 See *IGC 27 Report*, *supra* note 44 at para 163.

the "existing freedoms and the public domain,"[49] "innovation and creativity,"[50] "inspiration"[51] and so forth. For countries within this category, such terms as "sacred," "secret," "widely diffused" and "publicly available" associated with the tiered and differentiated approach are, to refer to the Canadian position, "problematic from certainty and clarity perspective"[52] and, in the view of the European Union, they are terms "open to further exploration"[53] and "open to interpretation."[54] According to the official report of the twenty-seventh IGC, the US delegation argued that "publicly available and widely diffused TK and TCEs did not lend themselves to protection by exclusive rights."[55] Canada took the position that "subject matter that was currently publicly available and that was not or was no longer protected by an intellectual property right (IPR) should not be protected"[56] under IGC instruments. The Republic of Korea states that publicly available or widely diffused TK belongs to the public and that retroactive protection would come at a high public cost.[57]

However, amid these heathy debates, gradually, the tiered or differentiated approach has continued to evolve since its introduction and continuing elaboration. Loosely, from the approach's earliest mention, it identifies five categories of TK; namely, secret, sacred, closely held, narrowly or partially diffused, and widely diffused. As evident in the following section, the closely held category and the narrowly or partially diffused categories have little warrant for distinction. These categories are hardly neat. Some of them overlap, depending on the conceptual outlook and the nature of the TK/TCEs. For example, secrecy is a feature of sacrelization of TK/TCEs. But in relation to the "uninitiated," sacred aspects of some TK/TCEs are encountered in contexts where they may not be conveyed as secret or vice versa. That is so because of the fusion of the intangible elements of TK/TCEs within tangible creations, as evident in the illustration of bark paintings, below. In a related vein, a closely held, or partially or narrowly diffused TK/TCE requires some evidentiary threshold regarding the permissible level of diffusion to eligible or ineligible "publics" recognized under customary laws and protocols. Finally, a TK/TCE may be secret and sacred, but that does not mean it could not also be narrowly, partially or even widely diffused.

As an important matter, the idea of diffusion may not necessarily be limited to the "publicness," exposure or accessibility of TK/TCEs to members of the public (i.e., the public domain element).[58] It incorporates other factors and considerations. Thus, "[b]eyond being a matter of how 'well-known' as a feature of geographical application [or dispersal] and uptake, diffusion is perhaps a referential concept to what actually is known or legitimately disclosed in a specific TK context, hence it is possible to have a widely or partially diffused TK [and TCE] that remains sacred and/or secret."[59] Also, diffusion could logically be scaled to include the extent to which a specific TK/TCE interacts with, influences, or is influenced by other knowledge, innovation and practices that are not strictly recognized as TK/TCEs.[60] IGC deliberations on the tiered or differentiated approach seem to not engage these expansive or malleable perspectives on the concept of diffusion. The idea of a tiered or differentiated approach is still at the incubation stage. As it evolves, it is expected that analysts and policy makers would have a more elaborate and pensive outlook on the associated and complementary concepts of diffusion of TK/TCEs in the context of the tiered and differentiated module.

Meanwhile, as an ongoing exercise, the tiered and differentiated approach to TK/TCEs remains a fluid concept. It seems now to be crystallizing

49 *Ibid* at para 53 (European Union).

50 *Ibid* at para 41 (Japan).

51 *Ibid* at para 194 (Canada).

52 *Ibid* at para 163.

53 *Ibid* at para 167.

54 *Ibid* at para 108.

55 *Ibid* at para 62.

56 *Ibid* at para 52.

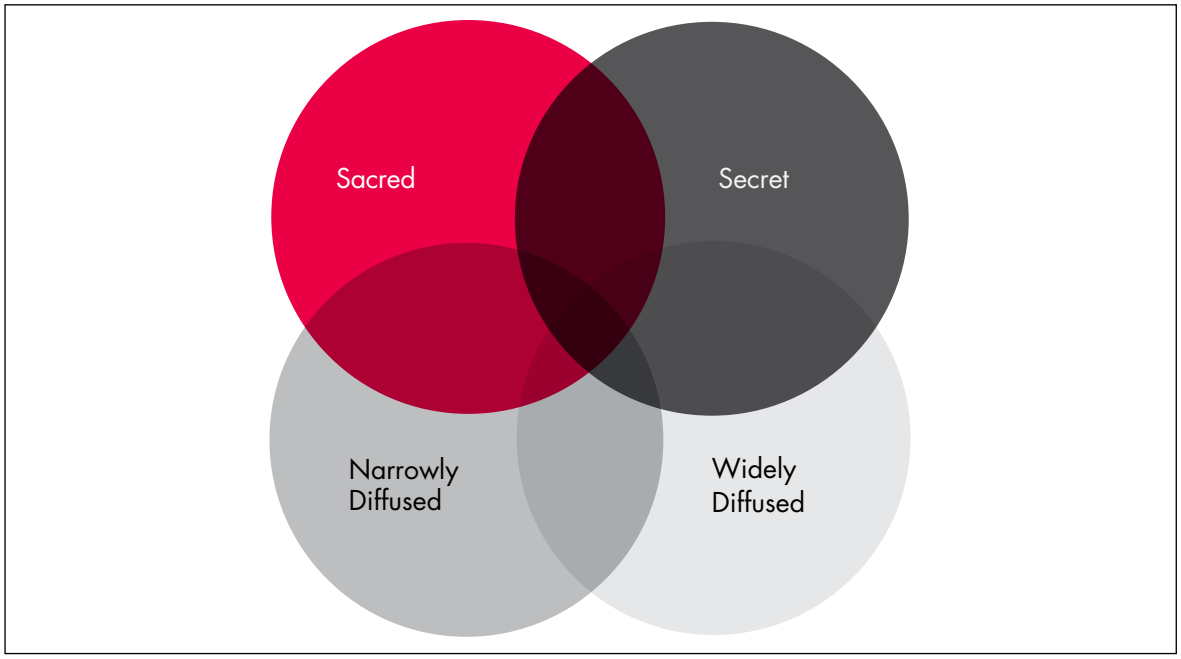
57 *Ibid* at para 78.

58 It is noted that not all IPs are susceptible to the public domain counterpoise. For example, trade secrets remain exclusive property of the owner in perpetuity unless their status is compromised.

59 See Chidi Oguamanam, "Tiered or Differentiated Approach to Traditional Knowledge: Insights for Understanding the Operations of the Concept and Evidentiary Thresholds" (WIPO IGC Seminar on Traditional Knowledge and Intellectual Property, 24-25 November 2016) at 10, online: <www.wipo.int/edocs/mdocs/tk/en/wipo_iptk_ge_2_16/wipo_iptk_ge_2_16_presentation_7oguamanam.pdf>. The observation is true for TK as it is for TCEs.

60 This is consistent with the view in anthropological circles that there is no knowledge that exists in isolation. Since knowledge is dynamic, that dynamism entails interaction across various knowledge systems as part of the process of knowledge creolization and evolution. See Brown, "Can Culture Be Copyrighted?", *supra* note 38.

Figure 1: Representation of Tiered and Differentiated Approach to TK/TCEs



Source: Author

around four overlapping (i.e., not mutually exclusive) categories.[61] For simplification sake, as illustrated in Figure 1, the categories are secret, sacred, narrowly diffused and widely diffused. The premise is that stronger or exclusive rights attach to secret and sacred TK/TCEs, in comparison to narrowly diffused and widely diffused TK/TCEs, with the latter attracting the weakest rights claim since they are faintly or, presumably, on the public domain periphery.[62] This very construct recognizes, on a pragmatic basis, the public domain imperative in relation to TK/TCEs. Yet, it opens them up to the universe of rights claims that cater to schematized attribution options; the details of which could be customized according to specific TK/TCE and IPLCs' customary protocols and particular national contexts.

As previously mentioned, from the twenty-seventh IGC in 2014, the issue of a tiered and differentiated approach has been received with mixed feelings, including skepticism and trepidation, especially in the rank of demandeur countries and even the Indigenous Caucus. However, the approach's proponents from the ranks of LMCs have continued to buttress the concept through its iterations in the draft texts of TK/TCEs as an unequivocal cross-cutting issue in the two instruments. For example, below is the working draft text on the tiered and differentiated approach, as it has since morphed into the draft article on the protection of TK arising from the thirty-fourth IGC in 2017, where it appears as alternative 2 to article 5, which is titled, "Scope of [and Conditions of] Protection:"[63]

> Member States [should/shall] safeguard the economic and moral interests of the beneficiaries concerning traditional knowledge as defined in this instrument, as appropriate and in accordance with national law, in a reasonable and balanced manner, and in a manner consistent with Article 14, in particular:

61 This framework dispenses with the closely held category, a highly vague concept. Arguably, however, the concept is captured under the partially or narrowly diffused TK category.

62 There is the need for a caveat here – not to conflate the concept and ramifications of diffusion in the tiered and differentiated elaboration from other contexts. Wide diffusion is not an excuse for abandonment of rights, given that the process through which a specific TK/TCE becomes widely diffused may be illegitimate, as in cases of piracy or biopiracy. Therefore, to insist that wide diffusion puts TK in the public domain borderline with consequential weakening of rights is to reward abuses of TK through illegitimate acts of diffusion.

63 See WIPO IGC, 34th Sess, *The Protection of Traditional Knowledge: Draft Articles*, WIPO/GRTKF/IC/34/5 (2017), online: <www.wipo.int/meetings/en/doc_details.jsp?doc_id=368218>.

(a) Where the traditional knowledge is secret, whether or not it is sacred, Member States [should/shall] take legislative, administrative and/or policy measures, as appropriate, with the aim of ensuring that:

i. Beneficiaries have the exclusive and collective right to maintain, control, use, develop, authorize or prevent access to and use/utilization of their traditional knowledge; and receive a fair and equitable share of benefits arising from its use.

ii. Beneficiaries have the moral right of attribution and the right to the use of their traditional knowledge in a manner that respects the integrity of such traditional knowledge.

(b) Where the traditional knowledge is narrowly diffused, whether or not it is sacred, Member States [should/shall] take legislative, administrative and/or policy measures, as appropriate, with the aim of ensuring that:

i. Beneficiaries receive a fair and equitable share of benefits arising from its use; and

ii. Beneficiaries have the moral right of attribution and the right to the use of their traditional knowledge in a manner that respects the integrity of such traditional knowledge.

(c) Where the traditional knowledge is not protected under paragraphs (a) or (b), Member States [should/shall] use best endeavors to protect the integrity of traditional knowledge, in consultation with beneficiaries where applicable.

The IGC's 2017 draft articles on the protection of TCEs has analogous, but more elaborate, provisions on the tiered and differentiated approach, which appears as alternative 3, option 1 of article 5, titled "Scope of [Protection]/[Safeguarding]." It covers articles 5.1, 5.2 and 5.3 of alternative 1.[64] The renewed IGC mandate for the 2018-2019 biennium, which started in March 2018, is another opportunity for further debates and elaboration of the tiered and differentiated approach as a work in progress.

The significance of the tiered or differentiated approach in the multiple and intersecting regimes (TK, GRs and TCEs) entrenched in the IGC's mandate is best appreciated in the context of the difficult relationship between TK/TCEs and virtually all forms of IPRs. For example, in the patent regime, newness of TK as an invention remains a problematic issue.[65] In the copyright rights arena, fixation and publication, especially of TCEs (or folklores), are perennial hurdles.[66] With regard to trademark and designs, claims of sacredness as a basis of exclusion of certain marks, symbols, insignias or designs from commercial exploitation remain a source of tension among stakeholders.[67]

The differentiated approach assists in illuminating the holistic nature of TK/TCEs as a cultural heritage expressed in various objectified forms, such as folkloric ornamentations, fabrics, designs, arts and artifacts. Ensconced within the latter are sacred or secret cultural and spiritual essences often conveyed in restricted rituals, practices and performances constituting aspects of meaning making within exclusive cultural memberships.[68] These holistic and interwoven assemblages of the various manifestations of TK/TCEs designate the fusion of the tangible with the intangible, a phenomenon that the problematic relationship between IP and TK/TCEs has yet to seriously consider. The next section illustrates the potential operation of the tiered or differentiated approach in specific sites of TK/TCE production across five countries that represent, as well as illustrate, three sample regional experiences.

64 See WIPO IGC, *Protection of Traditional Cultural Expression: Draft Articles*, 34th Sess, WIPO/GRTKF/IC/34/8 (2017), online: <www.wipo.int/meetings/en/doc_details.jsp?doc_id=375036>.

65 See Ikechi Mgbeoji, "Patents and Traditional Knowledge of the Uses of Plants: Is a Communal Patent Regime Part of the Solution to the Scourge of Bio Piracy" (2001) 9:1 Ind J Global Leg Stud 163.

66 See Kitti Jayangakula, "The Protection of the Expression of Folklore and Copyright Law", *Academia.edu* at 1–4 , online: <www.academia.edu/3423284/The_Protection_of_the_Expression_of_Folklore_and_Copyright_Law>; Paul Kuruk, "Protecting Folklore under Modern Intellectual Property Regimes: A Reappraisal of the Tensions between Individual and Communal Rights in Africa and the United States" (1999) 48:4 Am U L Rev at 769–849; Boatema Boateng, *The Copyright Thing Doesn't Work Here: Adinkara and Kente Cloth and Intellectual Property in Ghana* (Minneapolis, Minn: University of Minnesota Press, 2011).

67 Rosemary J Coombe, *The Cultural Life of Intellectual Properties: Authorship, Appropriation, and the Law* (Durham, NC: Duke University Press, 1998).

68 See Marie Battiste, ed, *Reclaiming Indigenous Voices and Vision* (Vancouver, BC: UBC Press, 2000).

Tiered or Differentiated Approach to TK/TCEs in Specific Contexts

Ghana: Kente Fabrics and Designs

Ghana's popular Kente and Adinkara fabrics and designs[69] have more than 4,000 years of history. Even though Kente is the stuff of diverse myths and generally associated with many other ethnic groups in the pre-colonial Gold Coast, it is largely linked with the pre-contact Akan people of the Asante kingdom[70] of West Africa, which is now spread across post-colonial West African states,[71] including Ivory Coast, Mali, Benin, Togo, Burkina Faso and Liberia. Kente is an integral aspect of Asante and Akan identity and contemporary Ghana's nationalism. Originally, Kente designs were associated mostly with Asante royalty (Asantehene's kente): "Kente cloth is at the top of hierarchy of celebration, status and wealth."[72] Every design had a culturally rooted meaning and symbolism that depicted the Asante worldview and its rich cultural heritage.

According to Boatema Boateng,

> [T]he motifs used in Asante kente cloth weaving have specific names; however, the cloth is usually named for the colors and design of the background, which is often striped. As with Adinkara, kente is named for historic figures and events and also for Asante values. The design kyeretwie, or leopard, or leopard catcher, for example, symbolizes courage, while aberewa ben, or "wise old woman," indicates the respect accorded older women in Asante society. Another design is named Oyokoman named for the Oyoko clan. One especially rich and prestigious version of these and other designs is called adweneasa or adwenasa, a name that refers to the weaver's skills.[73]

Kente has followed multiple pathways of diffusion, even in Ghana among its different custodial ethnic groups.[74] As with the first aspect, the current reality of Kente's diffusion is that it is no longer exclusive to Asante royalty. Rather, Kente fabric is now available to whomever can afford it among the Asante and in Ghana as a whole, among other Africans and, indeed, globally. Yet it is, in part, because of this global diffusion, rather than despite it, that Kente remains, unquestionably, a symbol of pre-colonial Asante identity and post-colonial Ghana's national character.

The second aspect of Kente's diffusion is with regard to the transformation of its process of production. Earlier Kente fabrics were made of GRs, specifically straws from species of bamboo and raffia endemic to regions within the Asante kingdom.[75] Over the centuries, Kente fabrics have begun to be made of industrial synthetic materials of varying quality. These materials are used to design various types of clothing and fashion accessories, even non-textile products, such as stationery, broadloom versions[76] and for miscellaneous materials outside of its original and historic limitations or applications to associated ethnic couture.

Nigeria: Adire Fabrics and Designs

Another African example of the TK/TCE of ILCs is Nigeria's Adire indigo-dyed fabric designs.[77] Unlike Kente, Adire is, arguably, a relatively new form of TK/TCE and creativity with limited research attention. Adire is virtually an all-female endeavour, associated largely, but not exclusively, with Yoruba women, especially in the Abeokuta

69 See Boateng, *supra* note 66.

70 Also, the Ashanti kingdom or empire.

71 Kwasi B Konadu, *Indigenous Medicine and Knowledge in African Society* (Abingdon, UK: Routledge, 2007).

72 Boateng, *supra* note 66 at 26.

73 *Ibid* at 23.

74 They include Asante/Akan (central Ghana), Gonja (northern Ghana) and Ewe (southeastern Ghana).

75 See e.g. Jane Schneider, "The Anthropology of Cloth" (1987) 16 Annual Rev Anthropology 409 at 417–18.

76 For insight on the technological diffusion of Kente production, see Boateng, *supra* note 66 at 27–30.

77 See Salihu Maiwada et al, "Cultural Industries and Wealth Creation: The Case of Traditional Textile Industry in Nigeria" (2012) 2:5 American Intl J Contemporary Research at 159–65; see also TL Akinbogun & SR Ogunduyile, "Crafts Engagement in the Economic Survival of South-Western Nigerian Rural Women" (2009) 3:2 J Enterprising Communities: People and Places in the Global Economy at 217–234.

axis of southwestern Nigeria.[78] To a varying degree, the practice of Adire art and design, as a cultural heritage of significant economic ramification, spans virtually all regions of Nigeria, their metropolitan centres and hinterlands, including, but not limited to, Lagos (Adire Eleko), Ibadan, Osogbo and others (southwest); Ogidi (north central); Calabar (southsouth); and Kano (northwest). There is a lack of information about the religious, spiritual or sacred symbolism of Adire, if any. However, Adire imageries, themes, unique dyeing art and general designs are creative representations of the women's artistic talents inspired by their cultural environment and identity. In comparison to Kente, for the most part, Adire is perhaps more representative of a secular traditional cultural entrepreneurship than any yet-to-be-demonstrated association with spiritual and innate cultural symbolism. Adire fabrics and designs continue to be dispersed and diffused across West Africa in particular, the entire African continent and among African diaspora more broadly. Increasingly, Adire fabrics are a reliable tourist take away from Nigeria and West Africa as a symbol of creative ingenuity and entrepreneurship of local Nigerian women.

Australia: Arnhem Aboriginal Bark Painting

From Australia, bark paintings designate a strong example of the fusion of the sacred and the intangible with the tangible, in a manner that engages multiple layers of diffusion. The paintings are associated with the Aboriginal clans and peoples of the Arnhem Land region of Australia's Northern Territory. Case law has recognized bark paintings as creative works that are associated with sacred dreaming images and the creation stories of exclusive cultural communities.[79] Aboriginal bark artists retain their individual imprimatur on their paintings. However, they operate within an exclusive cultural environment. Their work is based on, and inspired by, the collectively held traditional and sacred cultural heritage, the secret aspects of which are known only to a limited number of members of a specific clan. When deploying or working with those elements of collectively held cultural heritage, the artists act as fiduciaries or cultural agents between members of their communities and outsiders over the terms of use, or access to, those sacred paintings.[80]

Despite the deeply embedded sacred cultural symbols, rituals and other forms of intangibility associated with bark paintings, they are quintessential works of Aboriginal art. Dating back more than 3,000 years in post-colonial Australia, bark paintings are now integral aspects of Australia's national identity and brand. This is evident in the ubiquitous adaptations of these creative masterpieces into postage stamp designs, calendars, official tourist promotional information, and their certified documentations in the Australian National Gallery and in the folio of Aboriginal art published by the Australian Information Service.[81] They are used as educational resources to foster understanding between the dominant non-Aboriginal Australian society and its Aboriginal counterparts. Unequivocally, bark paintings are sufficiently diffused as the proud symbol of Australia's national heritage, premised on its sacred and rich Aboriginal historiography and origins.

Canada and the United States: Cowichan Weaving Art

Lastly, from Canada and the United States, the Cowichan weaving art, a traditional cultural heritage of the Coast Salish Indigenous peoples of the Pacific Northwest (British Columbia in Canada and Washington State in the United States) represents another example of TK/TCE with multiple layers of diffusion and variegated degrees of sacredness or symbolism. According to Marianne Stopp, Cowichan weaving involves the "ancient practice of transforming plant and animal fibres into woven textiles."[82] The pre-colonial Coast Salish bred special dogs for their fur as a core GR for weaving blankets and various functional weather gear. Over time, following colonial encounter, other materials such as sheep's wool and new forms of synthetic fibres were (and are currently) used in Cowichan weaving. As well, the weaving practice has since been extended to, and adapted, European sweater designs that were, before

78 See Adebambo Adewopo, Helen Chuma-Okoro & Adejoke Oyewuni, "A Consideration of Communal Trademarks for Nigerian Leather and Textile Products" in Jeremy de Beer et al, *supra* note 32 at 113.

79 See *Milpurrurru v Indofurn Pty Ltd*, [1994] FCA 975, 130 ALR 659.

80 *Ibid.*

81 *Ibid.*; see also Michael Blakeney, "Milpurrurru and Ors v Indofurn Pty Ltd and Ors" (1995) 2:1 Murdoch University Electronic Journal of Law.

82 Marianne P Stopp, "The Coast Salish Knitters and the Cowichan Sweater: An Event of National Historic Significance" (2012) 76 Material Culture Review/Revue de la Culture Materielle, online: <https://journals.lib.unb.ca/index.php/MCR/article/view/21406/24805>.

colonial encounter, not part of Aboriginal dressing. Rooted originally and exclusively in hand-weaving culture, from blankets to mittens and sweaters, the practice has since evolved as a complex knitting industry catering to other creative undertakings. Yet Cowichan weaving remains a pivotal aspect of the customary laws and practices and the heritage of Coast Salish peoples. Similar to Kente's global diffusion, the Cowichan sweater still retains its historical and cultural symbolism, even as it, perhaps more importantly, depicts an anchoring point of Coast Salish peoples' participation in North America's economy.[83] Cowichan sweaters, which were one of Canada's prominent showcases in the 2010 Winter Olympics in Vancouver,[84] are globally recognized as "warm, weatherproof, sturdy, serviceable, durable for outdoor pursuits...[and] one of the world's most distinctive sweater types."[85]

Secret, Sacred, and Widely and Narrowly Diffused TK/TCEs: Evidentiary Threshold

From the above illustrations, it is obvious that Kente, Adire, bark painting, and Cowichan weaving and knitting each have different degrees of sacredness and secrecy. For example, available evidence demonstrates that bark paintings are considered sacred, even today. Kente was historically sacred; over time its sacredness has been retained, but not in as strong a degree of consciousness. As with bark paintings, the sacredness of Kente and symbolism of the designs are sources of meaning only known to the initiated within an exclusive cultural core. The rituals and symbolism associated with either of the two forms of TK/TCEs largely designate their intangible aspects that are not known to the rest of the public. That is why the interest of non-Aboriginal or non-Indigenous patrons in bark paintings, or even Kente, lies in the products' physical (tangible), aesthetic and, by extension, economic appeal.[86] In such contexts, there is little regard for the craft's spiritual and other intrinsic cultural ramifications (i.e., the intangible components).[87]

With regard to Cowichan sweaters and weaving, or knitting in general, the intangible aspects of their culturally rooted spirituality and symbolism rarely take prominence. However, the degree to which such symbolism compares with those of bark paintings and Kente fabric may be a matter of speculation. Anecdotally, it is perhaps safe to suggest the custodians of the above four examples (including Adire) of TK/TCEs attach differing degrees of symbolism and cultural consequences to them. However, Cowichan weaving has long evolved to assume a strong economic tenor among the Coast Salish Indigenous peoples of the Pacific Northwest.[88] The craft's strong marketing spotlight and visible presence, as driven by the Coast Salish, depict the endeavour as a significant part of their regional and global bid for economic self-determination. In comparison to bark paintings or to Kente, the Cowichan sweaters, along with Adire weaving and dyeing arts, may well rank higher on the scale of economic appeal than for their spiritual and other intangible cultural considerations.

The implications of this variegated dynamic regarding the tiered and differentiated approach to TK/TCEs are manifold. First, it is possible to have sacred and/or secret TK/TCEs that are narrowly diffused or, even more important for the present analysis, widely diffused. Second, diffusion is not exclusively a factor of geographical dispersal or public accessibility. Third, the less a piece of TK/TCE retains its spiritual and cultural claims, the more likely it would resonate with claims to the public domain and, consequently, the weaker the rights claims, or claim of control, by its custodians. Fourth, in order to fully grapple with the notion of a tiered or differentiated approach, it is important to be conscious of the interwoven nature of the tangible and the intangible in TK/

83 *Ibid*.

84 Teresa Scassa, "Copyright of Inuit robe highlights gaps in Canadian legal framework" (26 November 2015), *Teresa Scassa* (blog), online: <www.teresascassa.ca/index.php?option=com_k2&view=item&id=200%3Acopying-of-inuit-robe-highlights-gaps-in-canadian-legal-framework&Itemid=84> (arguing that appropriation of Indigenous cultural heritage, as exemplified in the wholesale copying of an Inuit shaman's robe by a UK designer and the outsourcing by HBC to a third party to create imitation Cowichan sweaters for sale during the Vancouver Olympics, unravels "the disconnect between IP laws and indigenous cultural property.")

85 Stopp, *supra* note 82.

86 The global dispersal and replication of Kente on an industrialized scale in China demonstrates the commercial usurpation and appropriation of Kente that disconnects it from any cultural essence. The same is true in a number of litigations in Australia around bark paintings. Notably, in *Milpurrurru*, non-Aboriginal Australian business people commissioned a Vietnamese company to adapt and manufacture a series of top-notch bark paintings by eight highly regarded Aboriginal artists into carpets, which were imported, distributed and marketed in Australia without regard for their sacredness.

87 *Ibid*.

88 Stopp, *supra* note 82.

TCEs and how each element engages the public domain tension differently. Fifth, each of the examples demonstrates that the association of GRs with TK/TCEs is not limited to the uses of GRs in the usual contexts of traditional medicine and agriculture and their association with biodiversity and environmental conservation. Rather, the interface of GRs and TK/TCEs encompasses various other sites of traditional creativity grounded in other creative art forms. For example, in their original forms, Kente fabrics, Cowichan weavings and, even more so, bark paintings designate the uses of GRs implicating extensive interfaces among TK/TCEs, GRs and virtually all IP regimes within the IGC framework.[89] Last, and perhaps most important, determining the status of TK/TCEs in relation to each or more than one of the differentiated categories is contingent upon the evidentiary threshold or experience of its diffusion or lack thereof.

Tiered and Differentiated Approach as a Framework Concept

If the tiered or differentiated approach is to attain its objective of enhancing clarity, a lot will depend on evidence, or the kind of evidentiary threshold required across each of the four categories of differentiation and their overlaps. Whether, and to what extent, a form of TK/TCE is sacred, secret, or partially or widely diffused is a context- and subject-specific inquiry. Context, here, is in relation to the custodians or owners of the TK/TCE and ancillary customary laws and protocols, and the subject is in regard to the type of TK/TCE in question. However, context and subject may mutually interact and reinforce each other.

A genuine and legitimate effort to establish a credible evidentiary threshold on TK/TCE requires nuanced and sophisticated details on the nature of that knowledge and the layers of relationships implicated, as well as the nature and boundary of roles assigned to stakeholders in specific cultural contexts. These forms of detailing can hardly be legislated at the level of a global effort and fora, such as the IGC and other international arenas dealing with TK/TCEs, for many reasons. First, ILCs are the only credible custodians of their TK/TCE, which is an aspect of their self-determination and historic claims to sovereignty.[90] Second, neither the IGC nor any other government bodies at the national level or kindred institutions that are unfamiliar with the IPLCs' customary practices, protocol and cultural hierarchies have the credibility or legitimacy to inquire into and determine the details of the cultural and spiritual ramifications of a peoples' cultural heritage.[91] Third, IPLC representations at the IGC remain suboptimal and perennially constrained in the work of the IGC.[92] This is not to suggest, however, that even if IPLCs are adequately represented at the IGC, the forum could assume the legitimacy over detailing practical and evidentiary issues necessary in making determinations on the category of tiered or differentiated status of specific TK/TCEs.[93] Lastly, TK/TCEs are inherently dynamic and responsive.[94] The same is true of the undergirding customary laws, protocols and practices of IPLCs. As such, it is hard to fully capture or pre-empt

89 Kente, Adire, bark painting and Cowichan weaving demonstrate the overlap of TK and TCEs. GRs' interface with IP extends to copyrights, designs and trademarks, rather than the tendency to limit that interface to only the patents of innovation that are based on GRs and associated TK, which often happens in the fields of biotechnology, pharmaceuticals, medicines, agriculture, chemicals and environmental containment.

90 See Preston Hardison, "Response to WIPO Indigenous Panel on Outstanding/Pending Issues" in WIPO IGC, *IGC Draft Articles on the Protection of Traditional Knowledge: Indigenous Peoples' and Local Communities' Perspectives*, 32nd Sess (2016) [Hardison, "Response to WIPO"]; see also Rosemary J Coombe, "Intellectual Property, Human Rights and Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biological Diversity" (1998) 6:1 Ind J Global Leg Stud at 59; Chidi Oguamanam, "Indigenous Peoples' Rights at the Intersection of Human Rights and Intellectual Property Rights" (2014) 18:2 Marquette Intellectual Property L Rev at 261.

91 Hardison, "Response to WIPO", *supra* note 90.

92 This issue of participation of IPLCs in the IGC's deliberations has remained problematic from the beginning, owing to the fact that the delegation relies on voluntary funding support provided by the member states. See WIPO, "Case for Support: Promoting Effective Participation of Indigenous and Local Communities" in *WIPO Voluntary Fund for Accredited Indigenous and Local Communities*, online: <www.wipo.int/export/sites/www/tk/en/igc/pdf/flyer_vol_fund.pdf>.

93 See Hardison, "Response to WIPO", *supra* note 90; James S Anaya, *Technical Review of Key Intellectual Property-Related Issues of the WIPO Draft Instruments on Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions*, WIPO/GRTKF/IC/33/INF/9 (2016), online: <www.wipo.int/meetings/en/doc_details.jsp?doc_id=360462>.

94 See Darrell A Posey & Graham Dutfield, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous People and Local Communities* (Ottawa, ON: International Development Research Centre, 1996).

all the nuances around all forms of TK/TCEs in all IPLCs in one international instrument.

In formulating the details for the operationalization of the tiered and differentiated approach to TK/TCEs in any national contexts, constituent IPLCs must provide guidance on how their customary laws and protocols are engaged. Already, the majority of the IGC's negotiating blocs recognize IPLCs as the primary beneficiaries of TK/TCEs.[95] What has generated discordant perspectives is the status and role of states in relation to TK/TCEs. Ironically, the issue of IPLCs as the primary beneficiaries of TK/TCEs constitutes a point of consensus among the Indigenous Caucus, Groups A and B, and vocally the United States and its allies,[96] a position that diverges from that of the African Group and some LMC members.

The African Group and the majority of LMCs insist that states are also legitimate beneficiaries of TK/TCEs. As such, states need to be proactive at the national level in formulating requisite operational details of the tiered or differentiated approach to TK/TCEs.[97] The nature of the relationship between the state and IPLCs is largely a factor of colonial relations.[98] It is, therefore, understandable that in colonial states, for example, Canada, the United States, Australia and elsewhere the settler did not withdraw, such relationship disentitles states from any claims to ownership or assumption of beneficiary status to TK/TCEs vis-à-vis Indigenous peoples. The same could not be said with any degree of definiteness with regard to most of Africa's post-colonial states or India where the Indigenous peoples, in the literal and non-technical sense of the expression, or various categories of local communities constitute the dominant culture, whether or not there was settler withdrawal.[99] The short point is that the relationships between each Westphalian state and its IPLCs is contingent upon complex historical, colonial and post-colonial dynamics. No two states have an identical relationship with their Indigenous peoples. These are issues that will determine whether, and to what extent, a state could be a legitimate beneficiary of TK/TCEs and the extent of the role such state could lawfully play in issues concerning the subject.

Without getting mired in the role of states in relation to TK/TCEs, what may not be denied is that the customary protocols and practices of IPLCs would be crucial in implementing the tiered approach at a national, subnational and other level(s) as the case may be.[100] In this regard, the CBD-inspired jurisprudence pursuant to several initiatives, including those regarding the implementation of articles 8(j)[101] and 15,[102] the Bonn Guidelines,[103] the Nagoya Protocol and the FAO Plant Treaty[104] present a good direction on the subject of the integration of IPLCs' customary laws or norms, protocols and practices on TK/

95 WIPO, *Draft Articles Rev 2, supra* note 28.

96 *Ibid*. That position is reflected in the non-bracketed alternative 1 of the evolving WIPO, *Draft Articles Rev 2, supra* note 28, Annex 9: "2.1 Beneficiaries of this instrument are indigenous [peoples] and local communities who hold *protected* traditional knowledge" (emphasis added). It must be noted, however, that the majority of IGC members object to the idea of "protected" TK, which was introduced by the United States to provide for rigid sets of criteria or conditions preceding the protection of TK that opponents fear or perceive as an ostensible strategy to restrict the protection of TK. Annex 8 (*ibid*) captures the US proposition by providing as follows: "In order to be eligible for protection under this instrument, traditional knowledge must be distinctively associated with the cultural heritage of beneficiaries as defined in Article 2, and be created, generated, developed, maintained, and shared collectively, as well as transmitted from generation to generation for a term as has been determined by each Member State, but not less than for 50 years."

97 *Ibid,* Annex 9: "2.1 The beneficiaries of this instrument include, where applicable, indigenous [peoples], local communities, states, [nations], and other beneficiaries as may be determined under national law."

98 See Anaya, *supra* note 37.

99 For some sense of how the issue of protection of TK is driven by differing considerations in relation to postcolonial states in Africa and elsewhere in the Global South, on the one hand, and in the enclave territories on the other, pursuant to the saltwater thesis of international law, see Coombe, *supra* note 90.

100 WIPO, *Draft Articles Rev 2, supra* note 28 makes scattered references to national contingencies or national laws, to respect for customary norms, laws and practices of beneficiaries of TK (i.e., IPLCs) and to their prior and informed consent and mutually agreed terms, all of which collectively underscore the integration of the IPLCs' customary laws, protocols, practices and collective interests.

101 CBD, *Article 8(j): Traditional Knowledge, Innovations and Practices*, online: <www.cbd.int/traditional/> (this section states: "[e]ach contracting Party shall, as far as possible and as appropriate: Subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge innovations and practices."

102 CBD, *Article 15: Access to Genetic Resources,* online: <www.cbd.int/convention/articles/default.shtml?a=cbd-15>.

103 See CBD, Secretariat, *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* (Montreal: Secretariat of the CBD, 2002), online: <www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf>.

104 See FAO, *Treaty*, *supra* note 20.

TCEs.[105] Pursuant to these, there is a growing framework for integrating IPLCs' customary laws, protocols and practices with respect to access to GRs and associated TK, even TCEs, and the practices including the entrenchment of the principles of free, prior and informed consent, mutually agreed terms and the disclosure of sources and/or origin of GRs.[106] All of these have complementary ramifications for the IGC's tiered and differentiated approach and for how much it would depend on IPLCs for their effective implementation. Without question, at the very minimum, the state can play the role of honest broker, genuine facilitator (and, where suitable, trustee of interest) with the negative obligation to not undermine the protection of TK/TCEs.

Conclusion

Like the challenge posed by the Indigenous question in international law,[107] the issue of TK/TCEs has remained a sticking point in the ever-fractured international IP law and policy making.[108] At the heart of the tension over how to deal with TK/TCEs are two competing tendencies or inclinations. The first is to adapt TK/TCEs to fit within the eurocentric mould of IP law. The second is to recognize the enigmatic status of TK/TCEs as the basis of their unfitness for the purposes of IP and, ironically, at the same time, as the source of their warrant for a *sui generis* status.[109] Neither of these approaches provides a definitive solution to the TK/TCE question within the broad framework of global knowledge governance.[110] Progress has come from inadvertent quarters, by installment, and through an enduring state of international law and policy flux. In a way, because of, and not in spite of, the glaring omission of the TRIPS Agreement to recognize TK/TCEs, the latter has progressively evolved as one of the most continuing sources of pressure to orthodox IP[111] and the springboard for the universe of options and strategies to raise consciousness around a multicultural jurisprudence[112] of knowledge governance.

The IGC may have been conceived, in part, to deflate opposition to TRIPS, mainly from the Global South and within the rank of IPLCs, for its failure to reckon with TK as an important source of knowledge and innovation.[113] However, not many thought that the IGC could endure through its biannually installed tenure, 18 years later and still counting. However, despite its seemingly interminable lifespan and the failure of the expert forum to deliver on its mandate, few would deny the contributions of the expert body. Those contributions include the illumination of the legal and policy challenges engaged in the subject of the protection of TK/TCEs within its multiple intersections with IP and GRs. Perhaps more importantly, the proposed drafts and evolving texts of IGC instrument(s) have inspired and have benefited from other fora and diverse regimes that engage the intersection of TK/TCEs and GRs within the search for a more inclusive and equitable global knowledge governance regime.

The IGC has contributed to the evolution and elaboration of the emergent and fast consolidating universe of principles, including those regarding access and benefit sharing; free, prior and informed consent; disclosure of sources and/or origins of GRs and associated TK; and even TCEs involved in IP application. The IGC, however, does not have the exclusive credit for the evolution of these principles. Rather, it is a fundamental source of insights as a collaborative forum in the elaboration of these and various other principles

105 See *Nagoya Protocol, supra* note 19. Article 12 of that instrument captures the extent of its accommodation of IPLCs, protocols and procedures with respect to TK and associated GRs, and the need for supporting the effective participation of IPLCs in developing community customary protocols to facilitate access to GRs and fair sharing of benefits arising from their utilization.

106 Emanuela Arezzo, "Struggling Around the Natural Divide: The Protection of Tangible and Intangible Indigenous Property" (2007) 25:1 Cardozo Arts & Ent LJ 367.

107 See Anaya, *Indigenous Peoples, supra* note 37; Seigfried Wiessner, "Rights and Status of Indigenous Peoples: A Global Comparative and International Legal Analysis" (1999) 12 Harv Hum Rts J 57. See also Sigfried Wiessner & Lorie Graham, "Indigenous Sovereignty, Culture, and International Human Rights Law" (2011) 110:2 South Atlantic Quarterly 403.

108 Oguamanam, *Intellectual Property in Global Governance*, *supra* note 3; Rustiala, *supra* note 3; Helfer, *supra* note 4; Yu, *supra* note 4.

109 J Janewa Osei Tutu, "A Sui Generis Regime for Traditional Knowledge: The Cultural Divide in Intellectual Property Law" (2011) 15 Marquette Intellectual Property L Rev 147.

110 Oguamanam, *Intellectual Property in Global Governance*, *supra* note 3.

111 See Oguamanam, "Pressuring 'suspect orthodoxy'", *supra* note 30.

112 See de Sousa Santos, *supra* note 30 and accompanying text on the issue of multiculturalism.

113 Chidi Oguamanam, *International Law and Indigenous Knowledge* (Toronto: University of Toronto Press: 2010).

that overlap in the international environmental, agricultural and IP regimes pursuant to the CBD and, specifically, its Bonn Guidelines and subsequently the Nagoya Protocol,[114] the FAO Plant Treaty,[115] and the WIPO Committee processes and its development agenda platforms.[116] Perhaps the novel and evolving issue of the tiered or differentiated approach to TK/TCEs, more than any other subject, seems to represent one of the singular outstanding contributions of the IGC so far.

Despite the nascent and evolving nature of the concept of a tiered and differentiated approach to TK/TCEs, it has a lot of potential to foster a better understanding and pragmatic integration of TK/TCEs toward fair and balanced global knowledge governance. The success of the IGC, after all, may not depend on, or be measured exclusively by, whether it gives rise to treaty text(s) in accordance with its mandate, as desirable as that may seem. It is possible to have treaty text(s) that would result in little or no substantive outcome for IPLCs and other stakeholders over TK/TCEs and GRs and their interface with the IP system. That is different from a situation in which the parts and sum of the IGC's expert work open the pathway for a better policy space for practical advancement of its multiple subject matters, which is what the tiered and differentiated approach potentially offers. There is little doubt that the ramification(s) of that approach would transcend the IGC, as it would constitute a rich insight for various levels of policy making and jurisprudence over TK/TCEs and associated subject matters.

Author's Note

The author acknowledges, with thanks, the funding support for this research from CIGI. He also thanks the various reviewers of the paper, whose constructive comments and insights helped to improve the quality and accuracy of the study. The author takes sole responsibility for inadvertent omissions and any inaccuracies.

114 *Nagoya Protocol, supra* note 19.

115 FAO, *Treaty, supra* note 20.

116 See WIPO IGC, online: <www.wipo.int/tk/en/igc/>.

About CIGI

We are the Centre for International Governance Innovation: an independent, non-partisan think tank with an objective and uniquely global perspective. Our research, opinions and public voice make a difference in today's world by bringing clarity and innovative thinking to global policy making. By working across disciplines and in partnership with the best peers and experts, we are the benchmark for influential research and trusted analysis.

Our research programs focus on governance of the global economy, global security and politics, and international law in collaboration with a range of strategic partners and support from the Government of Canada, the Government of Ontario, as well as founder Jim Balsillie.

À propos du CIGI

Au Centre pour l'innovation dans la gouvernance internationale (CIGI), nous formons un groupe de réflexion indépendant et non partisan doté d'un point de vue objectif et unique de portée mondiale. Nos recherches, nos avis et nos interventions publiques ont des effets réels sur le monde d'aujourd'hui car ils apportent de la clarté et une réflexion novatrice pour l'élaboration des politiques à l'échelle internationale. En raison des travaux accomplis en collaboration et en partenariat avec des pairs et des spécialistes interdisciplinaires des plus compétents, nous sommes devenus une référence grâce à l'influence de nos recherches et à la fiabilité de nos analyses.

Nos programmes de recherche ont trait à la gouvernance dans les domaines suivants : l'économie mondiale, la sécurité et les politiques mondiales, et le droit international, et nous les exécutons avec la collaboration de nombreux partenaires stratégiques et le soutien des gouvernements du Canada et de l'Ontario ainsi que du fondateur du CIGI, Jim Balsillie.

Centre for International
Governance Innovation

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org

@cigionline