

IP Rights and Indigenous Rights: Between Commercialization and Humanization of Traditional Knowledge

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TABLE OF CONTENTS

I.	INTRODUCTION	72
II.	COMMERCIALIZATION OF TRADITIONAL KNOWLEDGE	74
	A. <i>Western IP Perception of Traditional Knowledge</i>	74
	1. <i>General Features of IP Law</i>	75
	2. <i>Applying IP Law to Traditional Knowledge</i>	76
	B. <i>Indigenous Groups' Criticism of IP-Based Traditional Knowledge</i>	78
	1. <i>Limited Scope of Protection</i>	78
	2. <i>Lack of Cultural and Environmental Considerations</i>	79
	3. <i>Individualization of Traditional Knowledge</i>	80
	4. <i>Excessive Systematization</i>	81
III.	HUMANIZATION OF TRADITIONAL KNOWLEDGE	82
	A. <i>Increasing IP Protection to Embrace the Needs of Indigenous Groups</i>	82
	1. <i>Extending Protection to Accommodate Intergenerational Use of Traditional Knowledge</i>	82
	2. <i>Improving the Disclosure Requirements to Preserve Equitable Sharing of Resources</i>	83
	3. <i>Overcoming the Excessive Systematization of IP Protection</i>	85

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B.	<i>Integrating Other Concepts of International Law for Mutual Enhancement of Sources</i>	86
4.	<i>Complementarity of Legal Sources Regulating Traditional Knowledge</i>	86
5.	<i>Mutual Enhancement of Legal Sources by the Humanization of Traditional Knowledge</i>	88
IV.	CONCLUDING STATEMENTS.....	90

I. INTRODUCTION

Indigenous communities pursue the preservation and development of their culture that is inextricably, and often spiritually, tied to their ancestral land.¹ This unique relationship distinguishes them from other groups or communities.² With time they have developed their own knowledge which has “been of immense value over millennia.”³ Notably, “the traditional knowledge systems of indigenous and local communities fed, healed, and clothed the world.”⁴ Three-quarters of plants providing active ingredients for prescription drugs were discovered by researchers through their use in traditional medicine, which has been linked to their modern therapeutic use.⁵

Traditional knowledge effectively contributes to resource management, to food security, and to the development and preservation of health systems;⁶ additionally, such knowledge increases the efficiency of the medicinal properties of plants.⁷ The unique importance of traditional knowledge requires special protection through the adoption of effective measures and the implementation of adequate policies. Lack of protection can lead to situations where, for example, a pharmaceutical company patents an invention derived from traditional medicine without any recognition to the indigenous group that developed it.⁸ Such invention would have been

1. Siegfried Wiessner, *The Cultural Rights of Indigenous Peoples: Achievements and Continuing Challenges*, 22 EUR. J. INT’L L. 121, 121 (2011).

2. *Id.*

3. Gurdial Singh Nijar, *Traditional Knowledge Systems, International Law and National Challenges: Marginalization or Emancipation?* 24 EUR. J. INT’L L. 1205, 1205 (2013).

4. *Id.* at 1206.

5. Gurdial Singh Nijar, *Incorporating Traditional Knowledge in an International Regime on Access to Genetic Resources and Benefit Sharing: Problems and Prospects*, 21 EUR. J. INT’L L. 457, 458 (2010).

6. *See* Nijar, *supra* note 3, at 1206.

7. For further information on the contribution of traditional knowledge to modern medicine including figures and numbers, *see* Nijar, *supra* note 5, at 458–59.

8. *See* MARISELLA OUMA, KEYNOTE ADDRESS AT THE WORLD INTELLECTUAL PROPERTY ORGANIZATION SEMINAR ON INTELLECTUAL PROPERTY AND TRADITIONAL KNOWLEDGE: WHY AND HOW TO PROTECT TRADITIONAL KNOWLEDGE AT THE INTERNATIONAL LEVEL (Nov. 25, 2016), at 2.

protected further if the innovation was registered by the community based on the requirements of intellectual property (IP) law.⁹ Existing instruments governing indigenous rights do not adequately cover all the necessary elements for efficient and effective protection of traditional knowledge.¹⁰ This protection should address the unique features of indigenous groups.

The term “indigenous” is attributed to peoples “on account of their descent from the populations which inhabited the country. . . at the time of conquest or colonization or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.”¹¹ These special features of indigenous peoples allow them to acquire many collective rights and entitlements, such as the right to “protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, and knowledge of the properties of fauna and flora.”¹²

Traditional knowledge, in its most narrow interpretation, excludes cultural expressions. The term refers to the knowledge which is created by indigenous and local communities and transmitted from generation to generation,¹³ and that “contributes to sustainable and equitable development and proper management of the environment.”¹⁴ It can take the form of “know-how, skills, innovations, practices, teachings or learnings.”¹⁵ This shows the importance of traditional knowledge to indigenous communities, for their sustainable development and the general preservation of their environment.

9. To see a general discussion on IP law and the protection it gives or could give see World Intell. Prop. Org. [WIPO], *What is Intellectual Property?*, WIPO, https://www.wipo.int/edocs/pubdocs/en/intproperty/450/wipo_pub_450.pdf [<https://perma.cc/DSK6-GM7T>].

10. See OUMA, *supra* note 8, at 2–3.

11. Indigenous and Tribal Peoples in Independent Countries Convention art. 1, June 27, 1989, 1650 U.N.T.S. 383.

12. G.A. Res. 61/295, annex, Declaration on the Rights of Indigenous People, art. 31 (Sept. 13, 2007).

13. *Id.*; World Intell. Prop. Org. [WIPO], *The Protection of Traditional Knowledge: Draft Articles Rev. 2*, art. 1, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Thirty-Second Session, WIPO/GRTKF/IC/32/4 (Sept. 23, 2016) [hereinafter WIPO 32nd Session Report], http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_32/wipo_grtkf_ic_32_4.pdf [<https://perma.cc/8U9V-CZ6W>].

14. G.A. Res. 61/295, *supra* note 12, at preamble.

15. WIPO 32nd Session Report, *supra* note 13.

Furthermore, it is a major resource for many developing countries, and constitutes a major element in agricultural, pharmaceutical, and cosmetic industries.¹⁶

Therefore, the relevance of traditional knowledge is undeniable, but the only question that remains is how to protect it. Does IP law provide adequate and sufficient protection for traditional knowledge? Can it accommodate the particularities of indigenous groups without affecting their aspirations and inspirations? Applying IP law to traditional knowledge is highly contested by indigenous communities, as it can effectively lead to a community's partial or total commercialization,¹⁷ which requires some efforts to "humanize" it for further adaptation to the context of indigenous rights.¹⁸

II. COMMERCIALIZATION OF TRADITIONAL KNOWLEDGE

IP rights were generally considered by developing states as a threat to their nascent economies, where counterfeiting was widespread for many reasons linked to the failure of registration. This applies to the context of traditional knowledge, since indigenous groups are mostly found in developing states. Hence, they feel threatened by IP law, mainly because it reflects the Western perception of traditional knowledge;¹⁹ this threat, as a result, brings criticism from indigenous communities.²⁰

A. *Western IP Perception of Traditional Knowledge*

The basic principles of IP law are provided by specific legal instruments that share the same scope of protection. Such protection can extend to cover traditional knowledge in specific circumstances where IP principles may apply, when the general features of IP rules are considered together with the particularities of traditional knowledge.

16. See G.A. Res. 61/295, *supra* note 12, preamble, ¶ 11; Convention on the Protection and Promotion of the Diversity of Cultural Expressions preamble, ¶ 8, Oct. 20, 2005, 2446 U.N.T.S. 311; International Treaty on Plant Genetic Resources for Food and Agriculture art. 9, ¶ 2, Nov. 3, 2001, 2400 U.N.T.S. 303; U.N. Convention to Combat Desertification art. 18, ¶ 2, Oct. 14, 1994, 1954 U.N.T.S. 3; U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev. 1 (Vol. I), annex I (Aug. 12, 1992) [hereinafter U.N. Conference on Environment and Development]; U.N. Convention on Biological Diversity art. 8, June 5, 1992, 1760 U.N.T.S. 79.

17. See *infra* Part II.

18. See *infra* Part III.

19. See *infra* Section II.A.

20. See *infra* Section II.B.

1. General Features of IP Law

IP protection was originally developed by industrialized countries, with many having some type of protection within their territories by the nineteenth century.²¹ Policies started to extend later to cover other states through bilateral agreements, and later still through multilateral treaties.²² Therefore, one cannot deny that IP is highly influenced by industrialized countries, which explains the concerns of developing countries that resisted accession to IP treaties for so long. These treaties were created while industrialized countries pushed towards more considerable IP protection in developing countries.²³ The industrialized countries made many efforts in this regard to harmonize legal standards to render IP protection more efficient and more widespread. Harmonization was enhanced by the adoption of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement in 1994, which led to further enhancement at the regional level.²⁴ In the European Union for example, property protection is no longer a matter left to the discretion of member states.²⁵ The European Union has influenced member states to promote the effective protection of intellectual property. For instance, France, a state party to all World Intellectual Property Organization (WIPO)-administered treaties, has enacted several laws that include adaptation measures to European Union Law with regards to IP protection.²⁶

21. CHRISTOPHER MAY & SUSAN K. SELL, *INTELLECTUAL PROPERTY RIGHTS: A CRITICAL HISTORY* 111 (Lynne Rienner Publishing 2005).

22. *Id.* at 130.

23. *Id.* at 161–62.

24. *Id.* at 162; Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS Agreement].

25. Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community art. 16, Dec. 13, 2007, 2007 O.J. (C 306) 1 (“The European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall lay down the rules relating to the protection of individuals with regard to the processing of personal data by Union institutions, bodies, offices and agencies, and by the Member States....”). Furthermore, The European Union adopted the European Patent Convention on October 5, 1973. Convention on the Grant of European Patents, Oct. 5, 1973, 1065 U.N.T.S. 199.

26. Loi 2015-195 du 20 février 2015 portant diverses dispositions d’adaptation au droit de l’Union européenne dans les domaines de la propriété littéraire et artistique et du patrimoine culturel [Law 2015-195 of February 20, 2015 on Various Provisions for Adaptation to European Union Law in the Fields of Literary and Artistic Property and Cultural Heritage], JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE [J.O.] [OFFICIAL GAZETTE OF FRANCE],

The modern perception of IP is based on the principle of protection.²⁷ This principle entails exclusive rights, in addition to other legal measures that limit the use of the protected material by third parties, or by setting conditions for their authorized use such as imposing compensation or patenting.²⁸ Intellectual properties can also be protected as secret information against unpermitted disclosure.²⁹ The main purposes of the principle are to ensure honest dealing in commercial matters by preventing unfair competition, to encourage people to create new things and come up with new ideas, and to promote safety of transactions and innovations.³⁰ However, these purposes cannot always be adapted to the context of traditional knowledge. The potential conflict between IP law and traditional knowledge requires the study of the latter from the perspective of IP.

2. Applying IP Law to Traditional Knowledge

Traditional knowledge is not protected in IP law by a specific treaty.³¹ Therefore, it is not expressly protected *per se*, but it is no stranger to the scope of work of the WIPO. The Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore is considering a legal instrument on traditional knowledge.³² It has published draft articles on the protection of traditional knowledge.³³ The adoption of this document would certainly be a positive step, even though it would not entirely respond to the concerns of indigenous groups. In the meantime, the current IP system can protect traditional knowledge in different situations. Recourse to IP law is the most obvious route to take, knowing that indigenous groups have

Feb. 22, 2015, p. 3294; Loi 97-283 du 27 mars 1997 portant transposition dans le code de la propriété intellectuelle des directives du Conseil des Communautés européennes n°S 93/83 du 27 septembre 1993 et 93/98 du 29 octobre 1993 [Law 97-283 of March 27, 1997, Transposing into the Intellectual Property Code European Communities Council Directives nos. 93/83 of September 27, 1993 and 93/98 of October 29, 1993], JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE [J.O.] [OFFICIAL GAZETTE OF FRANCE], Mar. 28, 1997, p. 4831. France has an updated IP code that was amended many times to incorporate International and European Union standards.

27. See World Intell. Prop. Org. [WIPO], *The Protection of Traditional Knowledge: Draft Gap Analysis: Revision*, annex I, ¶ 14, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Thirteenth Session, WIPO/GRTKF/IC/13/5(b) Rev. (Oct. 11, 2008) [hereinafter WIPO 13th Session Report].

28. *Id.* annex I, ¶ 11.

29. *Id.* annex II, at 11.

30. *See id.*

31. *Id.* annex I, ¶ 77.

32. World Intell. Prop. Org. [WIPO], *The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore: Background Brief No. 2*, WIPO, (2015), http://www.wipo.int/edocs/pubdocs/en/wipo_pub_tk_2.pdf [https://perma.cc/X2JC-TFUF].

33. WIPO 32nd Session Report, *supra* note 13.

the right to protect their intellectual property over cultural heritage.³⁴ Moreover, traditional knowledge incorporates informational material that corresponds to some contents covered by IP rights.³⁵

Inventions based on traditional knowledge can benefit from trademark protection.³⁶ Traditional knowledge can also be protected as undisclosed information.³⁷ A person that developed traditional medicine can keep his recipe confidential with regards to the composition or the healing effect of plants. Traditional knowledge can be patented if it can be attributed to one inventor or to his successors³⁸ and if its innovative character can be evidenced. This raises questions regarding the scope of disclosed or undisclosed information. Will information disclosed among the community be considered as undisclosed? How can confidential information lose its protection under IP law? Such questions show the need to accommodate IP concepts to the particularities of indigenous groups.³⁹

Indigenous inventions derived from genetic resources may be patented despite the controversy that it causes.⁴⁰ However, most traditional medicine is based on genetic resources that should be further protected. Traditional knowledge is often linked to a community found within a specific surrounding where they develop their cultural heritage over the years.⁴¹ Therefore, geographical indications can provide additional legal protection for traditional knowledge.⁴² Moreover, they have no time limitation, which would accommodate the needs of indigenous groups.

34. G.A. Res. 61/295, *supra* note 12.

35. WIPO 13th Session Report, *supra* note 27, annex II, at 2.

36. See World Intell. Prop. Org. [WIPO], *Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions: Overview*, WIPO, 24 (2015), https://www.wipo.int/edocs/pubdocs/en/tk/933/wipo_pub_933.pdf [<https://perma.cc/X62C-WRR4>].

37. See TRIPS Agreement, *supra* note 24, art. 39.

38. Protection of Industrial Property extends the right to priority over the invention to the successor of the person who duly filed the application for registration. See Paris Convention for the Protection of Industrial Property art. 4, Mar. 20, 1883, revised July 14, 1967, amended Sept. 28, 1979, 828 U.N.T.S. 305.

39. See discussion *infra* Section II.B.

40. See *id.* at 20.

41. *Traditional Knowledge*, WORLD INTELL. PROP. ORG., <https://www.wipo.int/tk/en/tk/> [<https://perma.cc/Q8YV-NVCA>] (last visited Dec. 20, 2018).

42. For discussion of the links between geographical indications and traditional knowledge, see Kal Raustiala & Stephen R. Munzer, *The Global Struggle Over Geographic Indications*, 18 EUR. J. INT'L L. 337, 345–46 (2007); see also Mahua Zahur, *The Geographical Indication Act 2013: Protection of Traditional Knowledge in Bangladesh with Special Reference to Jamdani*, in GEOGRAPHICAL INDICATIONS AT THE CROSSROADS

IP protection of traditional knowledge takes the form of positive measures to allow the indigenous community to exploit traditional knowledge and defensive measures to prevent third parties from obtaining any unfounded rights based on traditional knowledge.⁴³ Nevertheless, IP protection of traditional knowledge is often criticized by indigenous communities because it is based on the aspirations of Western countries, and does not fully consider the peculiarities of these communities.⁴⁴

B. Indigenous Groups' Criticism of IP-Based Traditional Knowledge

Indigenous communities have expressed their concerns regarding the IP perception of traditional knowledge.⁴⁵ These concerns relate to the limited scope of protection, lack of cultural considerations, individualization of traditional knowledge, lack of environmental considerations, and the excessive systematization of IP protection.

1. Limited Scope of Protection

IP protection was developed without traditional knowledge in mind.⁴⁶ The concept of protection of intellectual properties is narrower than the concept of protection of traditional knowledge.⁴⁷ Protection, as explained above, contradicts the cultural heritage of indigenous groups because it involves exclusive rights. Additionally, protection includes other legal measures that limit the use of the protected material by third parties or set out conditions for their authorized use.⁴⁸ Nevertheless, the protection of traditional knowledge requires its transmission from one generation to another,⁴⁹ and its safeguarding through inventories and other measures

OF TRADE, DEVELOPMENT, AND CULTURE: FOCUS ON ASIA-PACIFIC 439, 439–60 (Irene Calboli & Ng-Loy Wee Loon eds., 2017).

43. See *Traditional Knowledge and Intellectual Property – Background Brief*, WORLD INTELL. PROP. ORG., http://www.wipo.int/pressroom/en/briefs/tk_ip.html [<https://perma.cc/LGG8-M3ZL>] (last visited Dec. 20, 2018).

44. See *id.*

45. See DR. JANE ANDERSON, INDIGENOUS/TRADITIONAL KNOWLEDGE & INTELLECTUAL PROPERTY 20 (2010).

46. *Traditional Knowledge and Intellectual Property – Background Brief*, *supra* note 43.

47. See *id.*

48. See WIPO 13th Session Report, *supra* note 27, annex I, ¶¶ 26, 28, 46.

49. Erica-Irene Daes (Special Rapporteur on Protection of the Heritage of the Indigenous People), *Protection of the Heritage of the Indigenous People: Final Rep. of the Special Rapporteur, Mrs. Erica-Irene Daes, in conformity with Subcommission Resolution 1993/44 and Decision 1994/105 of the Commission on Human Rights*, at 9, U.N. Doc. E/CN.4/Sub.2/1995/26, annex (June 21, 1995); Convention for the Safeguarding of the Intangible Cultural Heritage art. 2, Oct. 17, 2003, 2368 U.N.T.S. 3.

including the implementation of national, sub-regional, and regional programs.⁵⁰ As an intangible cultural heritage, traditional knowledge is safeguarded by “preserving its link with living cultures and its role in the identity of its holders, as well as allowing the transmission of its different shades and colours to future generations.”⁵¹ Thus, protection is different from preservation and safeguarding; this difference leads to controversy over applying the IP system to traditional knowledge.

2. Lack of Cultural and Environmental Considerations

IP law was first conceived to protect commercial transactions.⁵² It is designed to promote commercial and industrial growth.⁵³ The incorporation of Trade Related Aspects of Intellectual Property Rights (TRIPS) into the General Agreement on Tariffs and Trade (GATT) in 1994 led to further commercialization. Commercialization restrains the ability of IP law to recognize and protect the intellectual property rights of indigenous groups. Such property is part of the heritage of indigenous communities that is recreated by groups in response to their environment. It provides them with a sense of identity and continuity, promotes cultural diversity and human creativity, and ensures their survival.⁵⁴ Therefore, it should be adapted to the changing environment, and their IP rights must reflect these specific considerations.

In the same context, it is often asked whether patents should be obtained over genetic resources,⁵⁵ given the fact that IP law can hardly accommodate the inter-generational use of traditional knowledge. As mentioned above,

50. Safeguarding can occur through the identification, documentation, revitalization, and promotion of cultural heritage to ensure its maintenance or viability. *See* Convention for the Safeguarding of the Intangible Cultural Heritage, *supra* note 49, arts. 16–18.

51. Federico Lenzerini, *Intangible Cultural Heritage: The Living Culture of Peoples*, 22 EUR. J. INT'L L. 101, 120 (2011).

52. *See* Robert P. Merges, *The Commercial Law of Intellectual Property*, 93 MICH. L. REV. 1570, 1571 (1995).

53. *See id.* at 1570.

54. *See* Convention for the Safeguarding of the Intangible Cultural Heritage, *supra* note 49, arts. 1–2.

55. *See* Paul Oldham, Stephen Hall & Oscar Forero, *Biological Diversity in the Patent System*, 8 PLOS ONE (2013), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827099/> [<https://perma.cc/WJ62-RGNF>]. This idea is also still being discussed in relation to TRIPS, *see* Catherine Saez, *Major Emerging Economies Push to Revive Discussions on Genetic Resources Misappropriation at WTO*, INTELL. PROP. WATCH (Dec. 6, 2018), <http://www.ip-watch.org/2018/06/12/major-emerging-economies-push-revive-discussions-genetic-resources-misappropriation-wto/> [<https://perma.cc/F64J-E5DY>].

indigenous people are tightly linked to the environment, cultural heritage and other aspects of societal values. Traditional knowledge nurtures the ecosystems as indigenous and local communities “co-evolve with the environment they inhabit. Without the sustained nurturing of the ecosystem, the resource could well have disappeared.”⁵⁶ The value of traditional knowledge is reflected in the “conservation of biodiversity and the sustainable use of its components.”⁵⁷

On one hand, genetic resources ought to be specifically recognized and protected since the global population greatly depends on traditional medicine,⁵⁸ which, in turn, relies on genetic resources. Furthermore, non-limitation of the unauthorized use of traditional knowledge can alter the effective protection of genetic resources because indigenous groups’ biological resources and genetic materials are already being patented without due recognition to the indigenous communities that developed them.⁵⁹ On the other hand, if genetic resources benefit from IP protection, the latter could not easily integrate the environmental dimension of traditional knowledge.

3. Individualization of Traditional Knowledge

Intellectual property rights’ systems create individual property rights, as opposed to traditional knowledge that is usually developed and transmitted through communities. IP law requires the registration of the patent or the trademark from the inventor or his successors.⁶⁰ This can hardly be applied to traditional knowledge, given that indigenous groups have the right to protect and develop their traditional knowledge.⁶¹ The main criticism in

56. Nijar, *supra* note 5, at 462.

57. *Id.*

58. Approximately 80% of the global population relies on traditional medicine for health care purposes. Cf. *Fact Sheet No. 134: Traditional Medicine*, WORLD HEALTH ORG. (Dec. 2008), http://www.sciav-itvas.org/images/stories/doc/agopuntura_scientifica/WHO_Traditional_medicine_2008.pdf [<https://perma.cc/24C8-3C22>]; Martins Ekor, *The Growing Use of Herbal Medicines: Issues Relating to Adverse Reactions and Challenges in Monitoring Safety*, FRONTIERS PHARMACOLOGY 1, 1 (Jan. 10, 2014) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3887317/pdf/fphar-04-00177.pdf> [<https://perma.cc/3QFN-GXTE>].

59. See Grethel Aguilar, *Access to Genetic Resources and Protection of Traditional Knowledge in the Territories of Indigenous Peoples*, 4 ENVTL. SCI. & POL’Y 241, 241, 250 (2001).

60. See Paris Convention for the Protection of Industrial Property, *supra* note 38.

61. G.A. Res. 61/295, *supra* note 12, art. 31, ¶ 1: “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, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.”

this regard is the fact that IP protection does not consider the common ownership of traditional knowledge.⁶²

Traditional knowledge, however, can involve different forms of ownership, and its interests can exist individually or collectively within a community—or more generally within a state.⁶³ It can also exist as a part of the common heritage of mankind (i.e. not exclusive to one specific community or state).⁶⁴

Therefore, traditional knowledge conflicts with the ideologies of IP law. Moreover, it sits “uneasily with the traditional human rights regime.”⁶⁵ This is “one of the major objections to the novel rights of indigenous peoples . . . that . . . are largely rights of collectivities, not individuals.”⁶⁶

4. Excessive Systematization

IP rights include several procedural rules that often cannot be followed by indigenous communities, or cannot be applied to traditional knowledge. On a practical level, local indigenous communities do not always seek legal services to obtain clear information on the registration process. Most traditional knowledge is usually transmitted orally through the community from one generation to another and is hardly formalized through IP rules. Indigenous groups cannot always afford the costs of registration and of following general IP requirements.

On a more theoretical level, systematized IP protection conflicts with the protection of traditional knowledge for many reasons. First, registration of patents and copyrights requires novelty.⁶⁷ This contradicts traditional knowledge that is, by definition, old and transmitted through generations.⁶⁸ Second, the temporary protection of patents, industrial designs and copyrights is incompatible with the safeguard and preservation of traditional knowledge. Third, the duty to disclose information under IP law does not cover the origin or the source of traditional knowledge.⁶⁹ This can affect the rights of indigenous groups and impede the equitable sharing of traditional knowledge

62. WIPO 13th Session Report, *supra* note 27, annex I, ¶ 18.

63. *Id.*

64. *Id.*

65. Wiessner, *supra* note 1, at 124.

66. *Id.*

67. *Id.*

68. World Intell. Prop. Org. [WIPO], *Key Questions on Patent Disclosure Requirements for Genetic Resources and Traditional Knowledge*, WIPO, 11 (2017), https://www.wipo.int/edocs/pubdocs/en/wipo_pub_1047.pdf [<https://perma.cc/S3BQ-EGLL>].

69. *Id.*

and its inter-generational use. It is not clear when traditional knowledge will be considered in the public domain or when it will be treated as undisclosed information; for example, in the case of dissemination within a local or indigenous community.⁷⁰

Such gaps require IP law to further accommodate the needs and aspirations of indigenous groups. Commercialization of traditional knowledge under the impact of IP law can be attenuated by incorporating the human dimension of indigenous rights, *i.e.*, through the humanization of traditional knowledge.

III. HUMANIZATION OF TRADITIONAL KNOWLEDGE

Humanization of traditional knowledge is achieved on two levels: (A) on the level of the inherent rights and specific needs of indigenous communities that should determine the expansion of IP protection, and (B) on a more global level, involving other concepts of public international law to achieve mutual enhancement of sources.

A. Increasing IP Protection to Embrace the Needs of Indigenous Groups

The needs of indigenous groups can be incorporated by IP law and other relevant sources in many ways that can be listed out within these three types of measures: (1) measures to extend protection to accommodate intergenerational use of traditional knowledge; (2) measures to improve the disclosure requirements; and (3) measures to overcome the excessive systematization of IP protection.

1. Extending Protection to Accommodate Intergenerational Use of Traditional Knowledge

The concept of protection in IP law can also help defend traditional knowledge, if some efforts are made to extend the scope of protection. Protection, preservation and safeguarding can be implemented together and are not *per se* mutually exclusive.⁷¹ By implementing a two-step approach, the IP law community can expand to include the recognition of exclusive rights and the protection of these rights from misuse or misappropriation. First, IP law should be expanded to include protection of traditional knowledge from illegal use, from unfair competition, and from a lack of proprietary rights and fair compensation. Second, IP law should expand beyond the narrow IP rights' concept. This involves not only safeguarding against the

70. WIPO 13th Session Report, *supra* note 27, annex I, ¶ 12.

71. *Id.*

loss of traditional knowledge and the discontinuity of indigenous rights, but also implementing protection against the unauthorized disclosure of genetic materials or other secrets related to traditional knowledge's development and transmission.⁷² This would allow IP law to follow the international consensus on the inter-generational sharing of resources,⁷³ including traditional knowledge.⁷⁴

2. *Improving the Disclosure Requirements to Preserve Equitable Sharing of Resources*

Accommodating IP law to incorporate traditional knowledge requires the expansion of disclosure requirements to cover other elements,⁷⁵ such as the origin of genetic resources and any eventual prior consent on the benefit-sharing of innovations for patent registration.⁷⁶ As the law stands, non-disclosure of these additional elements does not affect the approval of relevant claims.⁷⁷ Such an extension of the disclosure obligations enhances equitable sharing of resources by promoting the widespread use of traditional knowledge. This disclosure can still be voluntary if the applicant believes that it increases the protection of traditional knowledge and his related rights. National laws can also include specific provisions to increase the disclosure requirements. This is already the case in many states that have adopted domestic measures to encourage applicants to disclose several categories of information in their patents' applications.⁷⁸

72. *See id.*

73. U.N. Conference on Environment and Development, *supra* note 16.

74. G.A. Res. 70/1, Transforming our World: the 2030 Agenda for Sustainable Development (Oct. 21, 2015).

75. The Secretariat of the Convention on Biological Diversity recommends the adoption of national measures "to encourage the disclosure of the country of origin of the genetic resources and of the origin of traditional knowledge, innovations and practices of indigenous and local communities in applications for intellectual property rights." Secretariat of the Convention on Biological Diversity, Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising Out of Their Utilization (2002), ¶ 16(d)(ii), <https://www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf> [<https://perma.cc/JCM6-V98F>] [hereinafter Secretariat of the Convention on Biological Diversity]. There is currently no binding international law instrument that expands disclosure requirements; however, this instrument reflects the orientation towards the expansion of disclosure requirements.

76. *See id.*

77. *See id.* at 1–2. The guidelines which suggest the disclosure of these elements are specifically non-binding and do not alter the existing law on the matter.

78. *See generally* World Intell. Prop. Org. [WIPO], *Disclosure Requirements Table*, WIPO, (2017), www.wipo.int/tk/en/documents/pdf/genetic_resources_disclosure.pdf [<http://>

The purpose of disclosure requirements should be to avoid patenting inventions that lack novelty or that do not comply with the obligation of informed prior consent. However, complying with disclosure requirements should not affect the inventors' entitlement to preserve the legal rights of indigenous groups resulting from their inventions. A pharmaceutical company should not be able to register a patent for a medicine based on genetic materials developed by an indigenous group without obtaining the authorization of that group and granting them proper compensation. Ideally, under all circumstances, enhancement of disclosure requirements should promote, not hinder, the use of traditional knowledge, and promote the benefit-sharing that results from doing so.

Access to knowledge is a prerequisite to safeguarding traditional knowledge and reaching the objective of equitable sharing of resources—the intra-generational element of sustainable development. The use of traditional genetic materials by indigenous people establishes property rights in the product that is derived from these practices to the same extent as is generally provided for natural resources.⁷⁹ Nothing should obstruct the rights of local communities to benefit from natural resources, especially the knowledge that they have developed and transmitted among each other over the centuries.⁸⁰ Yet, requiring prior consent by indigenous groups retains an element of ambiguity. The Convention on Biological Diversity provides that each state party should:

Subject to its 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.⁸¹

This invoked the notion of requiring prior consent of indigenous peoples when processing access applications for the use of traditional knowledge.⁸² Nevertheless, the specific terms for obtaining such consent are yet to be

perma.cc/GP4U-3RUW] (the Disclosure Requirements table, published by WIPO includes extracts from existing national and legislative texts, including a specific disclosure requirement related to genetic resources and/or traditional knowledge.).

79. MATTIAS AHREN, *INDIGENOUS PEOPLES' STATUS IN THE INTERNATIONAL LEGAL SYSTEM* 219 (Oxford Univ. Press, 1st ed. 2016).

80. Rita A. Miraglia, *Traditional Ecological Knowledge Handbook: A Training Manual and Reference Guide for Designing, Conducting, and Participating in Research Projects Using Traditional Ecological Knowledge*, ALASKA DEPT. FISH GAME, 4 (1998), <http://www.subsistence.adfg.state.ak.us/techpap/rp97052b.pdf> [<https://perma.cc/3CV3-J2V5>].

81. U.N. Convention on Biological Diversity, *supra* note 16, art. 8(j).

82. Nijar, *supra* note 5, at 459–60.

determined. In any event, the related obligation is well-established as a mandatory requirement for states, which also applies to benefits where associated traditional knowledge is accessed.⁸³ Further interpretation and implementation measures would certainly clarify two ambiguities: (1) the obligation of prior informed consent, and (2) the obligation of fair and equitable sharing of resources.⁸⁴ Such advancements will enhance protection for the rights of indigenous communities and help minimize the excessive systematization of IP protection.

3. Overcoming the Excessive Systematization of IP Protection

Access to information and legal assistance can help indigenous groups face the practical problems of systematization. WIPO provides databases, publications, tools, and patent classification systems to facilitate registration of inventions. Traditional knowledge can benefit from the existing system but the system should be enhanced as well. The system must cover genetic resources linked with further disclosure as previously described. National measures should promote easy access to knowledge and provide legal aid for local communities and indigenous groups.

On a more theoretical level, subjecting traditional knowledge to the temporary protection of IP law does not impair the safeguarding of traditional knowledge. The purpose of protection is to limit counterfeiting and the unauthorized use of traditional knowledge rather than to grant eternal protection for traditional knowledge. Such protection contradicts with the spirit of traditional knowledge that is, by definition, part of the public domain of a group. It is very hard to identify a person as the single inventor. Hence, the indigenous group can collectively register the innovation for equal benefit-sharing among the community.⁸⁵ But what if another group wishes to claim rights over the innovation?

83. *Id.*

84. See generally Elisa Morgera, *The Need for an International Legal Concept of Fair and Equitable Benefit Sharing*, 27 EUR. J. INT'L. L. 353 (2016).

85. It was said in this context that current "legal mechanisms typically base the entitlement of IP rights on an individual or small group of individuals (such as a recognized inventor or inventors). To some extent, some forms of IP can recognize a collective entity as being entitled to exercise and benefit from rights over protected subject matter – for instance, geographical indications, collective trademarks and protection of undisclosed information, when a collective entity, including a legally recognized indigenous or local community, may be owner or beneficiary. But in general, there are no systems of recognizing collective or community ownership, custodianship or other forms of authority or entitlement over their

Implementation of priority rights requires the claim to be received by the first applicant. Therefore, many special exceptions should be recognized to accept patent registration claims regarding traditional knowledge. In addition to the extended disclosure requirements stated above, further inquiry should be undertaken. The limited time of protection can be the ground for re-inquiry when more claims are submitted. This certainly preserves the rights of new applicants but does not affect the rights of the groups that have already registered the innovation. They benefit from the protection of traditional knowledge and they will continue to benefit from it in the future if their renewal requests are approved, as opposed to the new applicants' claims. The unique character of traditional knowledge necessitates this special treatment. Thus, it is very important to look for the real roots of traditional knowledge and its links with a certain group or community which must prove these elements for the receipt of their registration claims. Consequently, the only way to overcome the excessive systematization of IP protection is by providing special procedures and implementation measures to accommodate the specificities of traditional knowledge. These intrinsic requirements do not suffice for effective protection of traditional knowledge. Extrinsic integrating measures are also needed.

B. Integrating Other Concepts of International Law for Mutual Enhancement of Sources

Providing further protection to traditional knowledge requires a look at other international legal sources aimed at safeguarding traditional knowledge in a broader scope.

4. Complementarity of Legal Sources Regulating Traditional Knowledge

International protection of indigenous rights rapidly developed through the adoption of specific legal instruments and its incorporation in various texts. Such expansion strengthens the protection of indigenous rights in general terms and in specific contexts, and facilitates the adaptation of this protection to the exact situation in question. The list of sources which contain specific protection of traditional knowledge is quite long. It involves several contexts, such as biodiversity, food and agriculture, desertification, and animal genetic resources. Traditional knowledge is also protected by more specialized instruments that are tightly linked to indigenous people, such

knowledge, or distinct elements of the knowledge. Such systems may need to take account of the experience that more than one community can be the rights owner of a TK.” WIPO

as the Declaration on the Rights of Indigenous Peoples, the UNESCO Convention on the Promotion and Protection of the Diversity of Cultural Expressions, and the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage.

The diversified legal framework for the protection of traditional knowledge is intertwined with many concepts. Moreover, traditional knowledge has much relevance and impact in several areas of law. States must preserve traditional knowledge that is “relevant for the conservation and sustainable use of biological diversity.”⁸⁶

Similarly, states should promote and protect traditional knowledge of farmers in compliance with the FAO International Treaty on Plant Genetic Resources for Food and Agriculture.⁸⁷ In the same terms, local populations’ knowledge, know-how, technology and practices should be promoted and disseminated to combat desertification.⁸⁸ Article 18 (2) of the United Nations Convention to Combat Desertification states that:

Parties shall, according to their respective capabilities, and subject to their respective national legislation and/or policies, protect, promote and use in particular relevant traditional and local technology, knowledge, know-how and practices and, to that end, they undertake to . . . make inventories of such technology, knowledge, know-how and practices and their potential uses with the participation of local populations, and disseminate such information, where appropriate, in cooperation with relevant intergovernmental and non-governmental organizations. . . .⁸⁹

The Convention also provides that regional activities may include “preparing inventories of technologies, knowledge, know-how and practices, as well as traditional and local technologies and know-how, and promoting their dissemination and use.”⁹⁰ These sources complete the legal framework provided by specific instruments relating to indigenous rights’ protection for the preservation of traditional knowledge and genetic resources,⁹¹ and

86. U.N. Convention on Biological Diversity, *supra* note 16, art. 8(j).

87. The FAO International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) provides that “each Contracting Party should, as appropriate, and subject to its national legislation, take measures to protect and promote Farmers’ Rights, including: (a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture. . . .” International Treaty on Plant Genetic Resources for Food and Agriculture, *supra* note 16, art. 9.2(a).

88. U.N. Convention to Combat Desertification, *supra* note 16, art. 18(2).

89. *Id.*

90. *Id.* art 6(b).

91. *See generally* Convention on the Protection and Promotion of the Diversity of Cultural Expressions, *supra* note 16; Convention for the Safeguarding of the Intangible Cultural Heritage, *supra* note 49; Secretariat of the Convention on Biological Diversity,

by relevant IP law rules. These complementarity laws lead to the simultaneous implementation of all the mentioned sources to provide more effective protection of traditional knowledge without affecting the consistency of the international legal order.

5. *Mutual Enhancement of Legal Sources by the Humanization of Traditional Knowledge*

Subjecting traditional knowledge to IP law leads to its quasi-systematization and fosters its commercialization, which is not negative *per se*.⁹² Intellectual property, as previously argued, is essential for protecting traditional knowledge if adjustments were made to accommodate it to the context of indigenous rights.⁹³ Yet, it is important to determine the grounds for the interplay between all relevant sources to “humanize” the systematic rules of IP law. The purpose is to further protect traditional knowledge and promote the mutual enhancement of sources.

Simultaneous implementation of several special regimes, as stated by the International Law Commission, requires systemic integration⁹⁴ between several sets of rules that are all, in some regard, *lex specialis*.⁹⁵ Therefore, these legal instruments must be applied jointly. Their coordination should not be problematic since their relationship “can only be approached through a process of reasoning that makes them appear as parts of some coherent and meaningful whole.”⁹⁶ These principles of systemic integration should be applied in light of general principles, such as the principle of humanity, given that they need to consider “the normative environment more widely.”⁹⁷ If intangible cultural heritage is not well safeguarded, “a paramount value pursued by contemporary international law [is at stake]: that is the human dignity of the people who consider the [intangible cultural heritage] as an essential part of their own identity and personality.”⁹⁸ Therefore, the legal framework regulating traditional knowledge includes, in addition to human

supra note 75; International Treaty on Plant Genetic Resources for Food and Agriculture *supra* note 16.

92. See generally Convention on the Protection and Promotion of the Diversity of Cultural Expressions, *supra* note 16; Secretariat of the Convention on Biological Diversity, *supra* note 75.

93. See discussion *supra* Section III.A.

94. Vienna Convention on the Law of Treaties, art. 31(3)(c), May 23, 1969, 1155 U.N.T.S. 331.

95. Rep. of the Study Grp. of the Int’l Law Comm’n, *Fragmentation of International Law: Difficulties Arising from The Diversification and Expansion of International Law*, ¶ 30, A/CN.4/L.682 (Apr. 13, 2006).

96. *Id.* ¶ 414.

97. *Id.* ¶ 415.

98. Lenzerini, *supra* note 51.

principles, the general framework regulating indigenous rights.⁹⁹ The commercial dimension is represented in this general background by IP law that covers specific features regarding the protection of traditional knowledge.¹⁰⁰

In the *Case of the Kaliña and Lokono Peoples v. Suriname*, the Inter-American Court of Human Rights confirmed the Practical Principle 9 of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity that highlights the interdisciplinary and participatory approach for such use.¹⁰¹ The Court added that it applies to the rights of indigenous peoples since they have a positive impact on the environment.¹⁰² Thus, these rights and international environmental laws are complementary and not exclusionary.¹⁰³ This approach was interpreted as follows:

[T]he main effect of the Court's discussion of the status of international environmental law vis-à-vis international human rights law speaks to the fragmentation of international law. By assuming the two bodies of rules to be compatible, the Court skirted the issue of hierarchy and put human rights at the top of the international legal order.¹⁰⁴

This approach must be followed in terms of traditional knowledge because it prioritizes human rights and the rights of indigenous people, with due recognition to environmental laws.¹⁰⁵ However, as mentioned above, it can still be compatible with IP protection. The draft articles of the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore establish a mutually supportive relationship between IP law involving the use of traditional knowledge

99. G.A. Res 61/295, *supra* note 12, art. 31 ¶ 1.

100. WIPO 13th Session Report, *supra* note 27, ¶ 57.

101. *Kaliña and Lokono Peoples v. Suriname*, Merits, Reparations and Costs, Inter-Am. Ct. H.R. (ser. C) No. 309, ¶ 173 (Nov. 25, 2015).

102. *Id.*

103. *Id.*; see *Salvador Chiriboga v. Ecuador*, Preliminary Objection and Merits, Inter-Am Ct. H.R. (ser. C) No. 179, ¶ 7 (May 6, 2008); see also *Yakye Axa Indigenous Cmty. v. Paraguay*, Merits, Reparations and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 125, ¶ 135 (June 17, 2005); *Xákmok Kásek Indigenous Cmty. v. Paraguay*, Merits, Reparations and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 21, ¶ 163 (Aug. 24, 2010).

104. Lucas Lixinski, *Case of the Kaliña and Lokono Peoples v. Suriname*, 111 AM. J. INT'L L. 147, 154 (2017).

105. See *Kaliña and Lokono Peoples v. Suriname*, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 309, ¶ 120, fn. 154 (Nov. 25, 2015); Lixinski, *supra* note 104.

and relevant international agreements.¹⁰⁶ They also recognize the priority of the rights of indigenous groups preserved in the United Nations Declaration on the Rights of Indigenous Peoples.¹⁰⁷ Similarly, the 2005 UNESCO Convention on the Promotion and Protection of the Diversity of Cultural Expressions determines mutual supportiveness, complementarity and non-subordination of this Convention with other treaties “when interpreting and applying” them.¹⁰⁸ This supports the integrative approach for applying the rules on the protection and promotion of traditional knowledge emphasizing all their legal, social, economic, environmental and human dimensions. Such an approach enhances all relevant sources without affecting their essence. It also leads to the humanization of traditional knowledge and to the consistency of the legal order. The integrative approach leads more generally to “a sense of coherence and meaningfulness” in the international legal order.¹⁰⁹

IV. CONCLUDING STATEMENTS

The suggested integrative system for the protection of traditional knowledge is not a new, *sui generis* branch of international law. It is rather a specific method to interpret and apply existing legal instruments while making a few adjustments to fit the context of indigenous rights.¹¹⁰

In this perspective, IP law should be adapted to traditional knowledge by implementing guidelines and extending the current legal system. This process has already started. WIPO now gives such special attention to traditional knowledge that it is considered a subject-matter within its studied policies and one that is covered by special publications. Moreover, WIPO has established the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore which is the main forum to negotiate an instrument for the protection of traditional knowledge.¹¹¹ The Committee is discussing Draft Articles for the Protection of Traditional Knowledge which aim to provide indigenous groups with an autonomous legal framework to protect their rights related to traditional

106. See discussion *supra* Section II.A.2.; WIPO 32nd Session Report *supra* note 13, art. 13.

107. See generally WIPO 32nd Session Report *supra* note 13, art. 13; G.A. Res. 61/295, *supra* note 12.

108. Convention on the Protection and Promotion of the Diversity of Cultural Expressions, *supra* note 16, art. 20.

109. Rep. of the Study Grp. of the Int'l Law Comm'n, *supra* note 95, ¶ 419.

110. *Traditional Knowledge and Intellectual Property – Background Brief*, WORLD INTELL. PROP. ORG., http://www.wipo.int/pressroom/en/briefs/tk_ip.html [https://perma.cc/3T5N-DP64] (last visited Nov. 15, 2018).

111. *Intergovernmental Committee*, WORLD INTELL. PROP. ORG., <http://www.wipo.int/tk/en/igc/index.html> [https://perma.cc/TWL8-6D5Y] (last visited Nov. 15, 2018).

knowledge.¹¹² WIPO has also actively involved indigenous groups in its works and negotiations.

Indigenous critics to the IP protection of traditional knowledge were seriously considered through many initiatives essentially led by WIPO. Outside the scope of IP law, efforts need to be made to apply IP rules to traditional knowledge. Such efforts should aim first to embrace IP law protection in a sense of further commercialization of traditional knowledge, and then to bring back the latter to where it initially belongs, the human dimension sphere. Through this process of commercialization and humanization, traditional knowledge will certainly be more effectively protected without being alienated from its true essence. The draft articles developed by WIPO, if adopted, would certainly push indigenous rights in this direction. But the ultimate process is far beyond that. It is indeed the systematic interpretation and implementation of all sources that directly and indirectly address indigenous rights while preserving the integrity of indigenous knowledge and fostering its creators' mutual enhancement. Such process would not only strengthen the protection of traditional knowledge, but would also promote good governance and rule of law.

112. WIPO 32nd Session Report, *supra* note 13, art. 10.

