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Nagoya Protocol on Access and Benefit Sharing: An Effective International Instrument for Safeguarding the Indigenous Peoples' Rights or Declarative Rhetoric of Double Standards?

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Chapter 1: Introduction

1.1.Introduction

With a wide range of possible uses, from expanding scientific understanding to creating new commercial goods, the sea's tremendous biological diversity is a source of enormous genetic and biochemical diversity. According to recent studies, more than 20,000 compounds have been found in marine species since the 1960s.[1]

The yearly value of goods generated from genetic and biological resources ranges from $500 - $800 billion USD to $20.9 trillion per annum and includes extracts, combination compounds, and enzymes used in pharmaceuticals, herbal remedies, agro-industrial crops, horticulture, cosmetics, crop protection products, and marine ecosystem services.[2] The original, traditional goods and Indigenous Peoples' traditional knowledge would have a worth of around 50 to 80 billion USD each year if 10% of this sum were theoretically derived through the usage of traditional knowledge.[3] By estimating the value of indigenous knowledge at 10% of the $50 billion USD global market, it would result in $5 billion in yearly gross sales. In a business setting, if Indigenous Peoples received even 10% of this $5 billion USD, it would equate to $500 million a year in net sales, which could be used to meet their fundamental requirements and needs.[4] Thus, the commercial exploration and exploitation of marine genetic resources (MGRs) are growing at a high rate worldwide and in Arctic regions particularly. [5] In addition to medicines, agriculture, biotechnology, bioremediation, cosmetics, food, nutraceuticals, industrial processes, and scientific research,[6] genetic resources are becoming more and more important in a variety of economic sectors[7].

There is a trend toward turning nature into a marketable product and commercializing biological variety. Indigenous Peoples (IP) might expect to gain very little and lose a great deal

[1] Hu G-P, Yuan J, Sun L, She Z-G, Wu J-H, Lan X-J, et al. Statistical research on marine natural products. Marine Drugs. MDPI AG; 2011;9: 514–525.
[2] OECD (2013), Marine Biotechnology: Enabling Solutions for Ocean Productivity and Sustainability, OECD Publishing, Paris, https://doi.org/10.1787/9789264194243-en.
[3] Ruiz Müller, M. (2008). The legal protection of traditional knowledge: Some political and normative advances in Latin America. Quito, Ecuador: UICN.
[4] Ibid
[5] Ana Martins; Helena Vieira; Helena Gaspar; Susana Santos. Marketed Marine Natural Products in the Pharmaceutical and Cosmeceutical Industries: Tips for Success. *Marine Drugs* 2014, *12*, 1066 -1101., Scropeta D., Wei L., 2014 Recent advances in deep-sea natural products. Nat. Product. Rep. 31 999-1025
[6] Oldham, P., Hall, S., Barnes, C., Oldham, C., Cutter, M., Burns, N., Kindness, L., 2014. Valuing the Deep: Marine Genetic Resources in Areas Beyond National Jurisdiction, Defra Contract MB0128 – A review of current knowledge regarding marine genetic resources and their current and projected economic value to the UK economy. Final Report Version One. One World Analytics, London.,
[7] Rogers, A Sumaila, U., Hussain, S., Baulcomb, C., 2014. The High Seas and Us: Understanding the Value of High Seas Ecosystems. Global Ocean Commission, Oxford.

because of this trend.[8] Indigenous Peoples are currently subject to a hybrid of domestic and international legal systems.[9] There are at least 7,000 indigenous groups worldwide. According to current estimates, there are around 370 to 476 million[10] Indigenous Peoples globally (about 5% of the world's population), spread over 90 nations[11], and 70% of them live in Asia.[12]

Indigenous Peoples were (and still are) politically, economically, and culturally subjugated by the nation-states in which they currently reside.[13] Although they have lived as a distinct entity throughout the evolution of contemporary international law, they have seldom been acknowledged as genuine international players and have frequently been the victims of prejudiced, hegemonic policies that have subjugated them to a status quo system camouflaged in the language of humanism and equal opportunities and rights.[14] Even currently, Indigenous Peoples are among the world's most marginalized and discriminated groups of people.[15]

Given how diverse they are from one community to another, it is noteworthy to admit that Indigenous Peoples did not want a description of what an Indigenous People would be, additionally, noting that "historically, Indigenous Peoples have suffered from definitions imposed by others."[16] A formal definition of "Indigenous" has not been accepted by any UN system body due to the multiplicity and diversity of Indigenous Peoples,[17] nevertheless, there are some criteria that are frequently referred to.

Self-identification, distinctiveness, no dominance, and a link to a region or specific territory, while maintaining their own social structure, are the four key components (parameters) used to identify groups as Indigenous Peoples.[18]

It should be noted, that Indigenous Peoples and local communities still experience eviction and "biopiracy", regarding their lands and resources.[19] Thus, a successful international system of access and benefit sharing (ABS) is absolutely crucial for Indigenous Peoples. Such a system

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[8] Dieter Dörr/Mark D. Cole, Native American Nations between Termination and Self-Determination, in: Scheiding (Ed.), Native American Studies across Time and Space, Heidelberg 2010, p. 105 (105–106).
[9] Ibid
[10]The World Bank, "Understanding poverty", https://www.worldbank.org/en/topic/indigenouspeoples#:~:text=There%20are%20an%20estimated%20476,percent%20of%20the%20extreme%20poor, accessed on 26.08.2022
[11] State of the World's Indigenous Peoples, UNFPII, un.org/esa/socdev/unpfii/en/sowip.html
[12] https://www.amnesty.org/en/what-we-do/indigenous-peoples/
[13] Ulf Mörkenstam (2015) Recognition as if sovereigns? A procedural understanding of indigenous self-determination, Citizenship Studies, 19:6-7, 634-648
[14] Balakrishnan Rajagopal, International Law from Below: Development, Social Movements, and Third World Resistance (2003)
[15] Hughes, Lotte. No-Nonsense Guide to Indigenous People, New Internationalist, 2007. ProQuest Ebook Central, http://ebookcentral.proquest.com/lib/tromsoub-ebooks/detail.action?docID=3382527
[16]Erica-Irene A. Daes. "Indigenous Peoples' Rights to Land and Natural Resources", in Minorities, Peoples and Self-determination, ed. Nazila Ghanea and Alexandra Xanthaki (Martinus Nijhoff Publishers, 2005), 87., p.75-93
[17] A Factsheet entitled 'Indigenous Peoples, Indigenous Voices' by United Nations Permanent Forum on Indigenous Issues
[18] Anaya, S. James. Indigenous Peoples in International Law. 2nd ed. Oxford: Oxford University Press, 2004.
[19] Ibid

must contain a framework that properly upholds Indigenous Peoples' human rights and respects their right to full and effective involvement and participation. In this respect, there should be clear answers to the problems of justice and fairness of ABS regarding Indigenous Peoples in the contemporary context, where the discovery of marine genetic resources delivers socioeconomic advantages for biotechnology corporations and those benefits are increasing over time. The way in which international and national legislations are established should be able to specify the degree of benefit sharing between Indigenous People and the businesses involved in the marketing and commercialization of MGR products.

1.2. Objectives and Research Questions of the Thesis, and their Topicality:

The main objective of this thesis is to analyze and explore relevant international instruments regarding the principles of free, prior, and informed consent (FPIC) and the right to fair and equitable benefit sharing of MGRs to Indigenous Peoples. The study also aims to identify the gaps and the shortcomings of the legal framework, point out the possible procedural and substantive injustices in relation to Indigenous Peoples' rights to access and benefit sharing of MGRs, and indicate possible approaches that could improve the effectiveness of the legal framework. To achieve these objectives, the thesis addresses the following research questions:

- To what extent does the existing international legal framework guarantee the rights of Indigenous Peoples to FPIC, and access and benefit sharing of MGRs?
- Are there some injustices or gaps and shortcomings in relation to Indigenous Peoples' rights in the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (NP)?

The status of Indigenous Peoples generally in international law, and especially regarding their rights to lands and terrestrial natural resources, is the subject of an extensive body of literature.[20] However, there is relatively little scholarly literature on the rights of Indigenous Peoples to FPIC, and access and benefit sharing (ABS) concerning MGRs. The body of studies on the Indigenous Peoples' rights associated with marine genetic resources has increased recently, but such studies are still mainly constrained in scope and concentrate mostly on the

[20] Romanin Jacur, Bonfanti, A., & Seatzu, F. (2016). Natural resources grabbing : an international law perspective: Vol. volume 4. Brill Nijhoff, Hohmann, & Weller, M. (2018). The UN declaration on the rights of indigenous peoples : a commentary. Oxford University Press, Gilbert. (2007). Indigenous Peoples' Land Rights under International Law. In Transnational Publishers, Inc., 2006, 349 pp (p. 349p–349p). BRILL., Åhrén, & êAhrâen, M. (2016). Indigenous peoples' status in the international legal system (First edition.). Oxford University Press, MJ Valencia, and D VanderZwaag, "Maritime Claims and Management Rights of Indigenous peoples: Rising Tides in the Pacific and Northern Waters" (1989) 12 Ocean and Shoreline Management 125.

analysis of the problems within certain national jurisdictions.[21] There is a dearth of literature that fully addresses international human rights law and the law of the sea (environmental law) regimes, especially specialized treaty regimes that safeguard Indigenous Peoples' rights relating to marine genetic resources.[22]

Thus, this thesis aims to fill a gap in the literature and add to the limited existing body of knowledge with respect to the rights of Indigenous Peoples in relation to marine genetic resources. It provides an in-depth evaluation of the nature and extent of the protection accorded to Indigenous Peoples under international law.

1.3. Theoretical Framework

The third-world approach to international law (TWAIL) and the human rights-based approach (HRBA) to marine (natural) resources are the two connected and complementary theoretical viewpoints that are used in this thesis. TWAIL is a postcolonial theory and methodology to analyze and challenge international law and its institutions.[23] TWAIL is founded on the idea that international law developed during colonial encounters to justify the colonization, subjugation, and exploitation of the resources of non-European developing States in general and Indigenous Peoples specifically.[24] The growing concern of third world states and peoples about the dynamics of power relationships and the idea that "any proposed international norm or institution will genuinely impact the distribution of power between states and peoples" is one driver for the increase in TWAIL studies.[25] According to proponents of the TWAIL, modern international law (whether conventional or customary international law) never adequately addresses the rights and worldviews of Indigenous Peoples since it has strong

[21] Eritja, Mar Campins. "Bio-prospecting in the Arctic: An Overview of the Interaction between the Rights of Indigenous Peoples and Access and Benefit Sharing." Boston College Environmental Affairs Law Review 44, no. 2 (2017): 223, Ban, Natalie C., Emma Wilson, and Doug Neasloss. "Historical and Contemporary Indigenous Marine Conservation Strategies in the North Pacific." Conservation Biology 34, no. 1 (2020): 5-14, Valencia Mark J. and David VanderZwaag. "Maritime Claims and Management Rights of Indigenous Peoples: Rising Tides in the Pacific and Northern Waters." Ocean and Shoreline Management 12 no. 2

[22] For example Allen, S., Bankes, N., & Ravna, Ø. (Eds.). (2019). The Rights of Indigenous Peoples in Marine Areas. Oxford: Hart Publishing.

[23] Obiora C. Okafor, 'Critical Third World Approaches to International Law (TWAIL): Theory, Methodology, or Both?' (2008) 10 ICLR 371, 376.

[24] Sunter, A. (2007). TWAIL as naturalized epistemological inquiry. Canadian Journal of Law and Jurisprudence, 20(2), 475–510, Haskell, J. D. (2014). Trailing TWAIL: Arguments and blind spots in the third world approach to international law. Canadian Journal of Law and Jurisprudence, 27(2), 383–414, Gathii, J. T. (2011). TWAIL: A brief history of origins, its decentralized network, and tentative bibliography. Trade, Law and Development, 3(1), 26–64.

[25] Antony Anghie and B.S. Chimni, "Third World Approaches to International Law and Individual Responsibility in Internal Conflicts" (2003) 2(1) CJIL 78.

colonial roots and is founded on western concepts and ideologies.[26] In that respect, TWAIL's goal is to uncover transformational and retrogressive aspects of international law. [27] To attain and advance global justice, TWAIL advocates contend that, "international law must be transformed from being a language of oppression to a vocabulary of emancipation".[28] This may be done by uncovering the hidden narratives of the colonial history, power, identity, and concerns of third-world States, as well as by generating interest in the Global South and Indigenous Peoples' rights. Therefore, the TWAIL approach calls for the various principles of international law to be reinterpreted in a way that rights historical wrongs, acknowledges a legal diversity that respects Indigenous worldviews, laws, and traditional practices and equips Indigenous peoples in a way that satisfies their evolving demands and needs.[29]

Achieving distributive and procedural justice is one of the principal objectives of the TWAIL approaches. The concepts of distributive and procedural justice have been applied in various settings, including Indigenous peoples-State relations and interactions. According to Adams,[30] Thibaut and Walker,[31] Verboon and van Dijke,[32] distributive justice refers to the degree to which outputs of a process that distributes rewards and obligations are viewed as fulfilling implicit standards like the equity rule. According to research, people respond more favorably when they believe that decisions have been made fairly (as opposed to unfairly).[33] Equitable distribution may be determined by factors like equality and necessity.[34] The stability of a society and the welfare of its people depend on the equitable distribution of resources or distributive justice.[35]

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[26] Fidler. (2003). Revolt Against or From Within the West? TWAIL, the Developing World, and the Future Direction of International Law. Chinese Journal of International Law (Boulder, Colo.), 2(1), 29–76.

[27] James T. Gathii, 'TWAIL: A Brief History of Origins, its Decentralized Network, and a Tentative Bibliography' (2011) 26 TLD 37.

[28] Anghie Antony, Chimni B.S., Third World Approaches to International Law and Individual Responsibility in Internal Conflicts , Chinese Journal of International Law, Volume 2, Issue 1, 2003, Pages 79.

[29] Fidler. (2003). Revolt Against or From Within the West? TWAIL, the Developing World, and the Future Direction of International Law. Chinese Journal of International Law (Boulder, Colo.), 2(1), 29–76; Anghie. (2005). Imperialism, Sovereignty and the Making of International Law. In Imperialism, sovereignty and the making of international law (Vol. 37, pp. xix–xix). Cambridge University Press.

[30] Adams, J. S. (1965). "Inequity in social exchange," in Advances in Experimental Social Psychology, Vol. 2, ed. L. Berkowitz (New York, NY: Academic Press), 267–299. doi: 10.1016/s0065-2601(08)60108-2

[31] Thibaut, J. W., and Walker, L. (1975). Procedural Justice: A Psychological Analysis. Hillsdale, NJ: Lawrence Erlbaum Associates.

[32] Verboon, P., and van Dijke, M. (2007). A self-interest analysis of justice and tax compliance: how distributive justice moderates the effect of outcome favorability. J. Econ. Psychol. 28, 704–727.

[33] Brockner, J. (2002). Making sense of procedural fairness: how high procedural fairness can reduce or heighten the influence of outcome favorability. Acad. Manage. Rev. 27, 58–76, Bianchi, E. C., Brockner, J., van den Bos, K., Seifert, M., Moon, H., van Dijke, M., et al. (2015). Trust in decision-making authorities dictates the form of the interactive relationship between outcome fairness and procedural fairness. Pers. Soc. Psychol. Bull. 41, 19–34

[34] Maiese, Michelle. "Types of Justice." Beyond Intractability. Eds. Guy Burgess and Heidi Burgess. Conflict Information Consortium, University of Colorado, Boulder, 2003

[35] Jeffrey A. Jenkins's discussion on "Types of Justice," in The American Courts: A Procedural Approach, Jones & Bartlett Publishers, 2011.

Similarly, procedural justice is a notion that aims to accomplish justice or fairness through the procedures involved in the distribution of commodities or benefits in society, including the settling of disagreements over the distribution of resources. A fair process gives people who are under impact a chance to participate in the decision-making process.[36] Procedural justice in a legal system is important as the continuation and legitimacy of a legal system partly depend on public confidence and support generated by its fair procedural guarantees.[37] Procedural fairness produces favorable results, a positive attitude of the legal subjects, and cooperative actions in the implementation of substantive rights (for example, the distributive aspect of justice).[38] In the context of disputes involving Indigenous peoples, procedural justice is crucial because it implies respect for the parties and their positions, has the potential to promote amity and harmony and increases the likelihood of achieving substantive justice, and enables parties to come to mutually agreeable conclusions.[39] Procedural justice, in short, means creating procedures that are fair and just to both Indigenous peoples and all parties involved.

The relationship between distributive and procedural justice indicates that either a high level of procedural or distributive justice is sufficient to generate positive responses to the authority or the social collective. Or, to put it another way, when both distributive justice and procedural justice are poor, negative reactions and responses are most likely to occur.[40]

A human rights-based approach (HRBA), which is based on a system of rights and accompanying duties that derives from international human rights law, is also contained within the TWAIL framework. This approach helps in identifying rights holders, their entitlements, and the corresponding States' related duties.[41] Through the general duty of respecting human rights, this approach imposes a responsibility to uphold the human rights of Indigenous Peoples on States as well as non-state entities using maritime space and marine resources.[42] It further helps to address the civil, political, economic, and cultural rights of Indigenous Peoples in a comprehensive way, encompassing the diversity of local, traditional, and cultural access rights that are now recognized by law and exercised in indigenous communities.[43]

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[36] J. Rawls, A Theory of Justice (Oxford University Press, Oxford, 1999) pp. 52–53, 198
[37] T. Tyler, 'Procedural Justice and the Courts', 44 Court Review (2007) p. 26.
[38] Tyler, T. R., and Blader, S. L. (2000). Cooperation in Groups: Procedural Justice, Social Identity, and Behavioral Engagement. Philadelphia, PA: Psychology Press.
[39] Ibid
[40] van Dijke M, Gobena LB and Verboon P (2019) Make Me Want to Pay. A Three-Way Interaction Between Procedural Justice, Distributive Justice, and Power on Voluntary Tax Compliance. Front. Psychol.
[41] Willmann, Franz, N., Fuentevilla, C., McInerney, T. F., & Westlund, L. (2017). A Human Rights-Based Approach in Small-Scale Fisheries: Evolution and Challenges in Implementation. In *The Small-Scale Fisheries Guidelines* (pp. 763–787). Springer International Publishing.
[42] ibid
[43] TNI Agrarian Justice Programme, Masifundise Development Trust and Afrika Kontakt, 37-38

In conclusion, TWAIL and the HRBA combined to guide the framework for the methodological approach, including the methodologies and sources used to interpret the many instruments relevant to this thesis (described in more detail in the next sections).

1.4. Methodology and Legal Sources

To realize the above-mentioned study aims, issues, and questions, appropriate research methodology must be used. This thesis is a legal study that focuses on international public law. Thus, the traditional legal dogmatic/doctrinal method is used in this thesis.[44] This widely used approach to legal research focuses on the examination of legal principles and concepts, soft laws, case law precedents, statutory provisions, and guiding principles.[45] Doctrinal research gives a comprehensive explanation of the rules controlling a particular legal category, assesses the link between rules, explains areas of difficulty, and, maybe, forecasts future changes, trends, and developments.[46] Through examination and interpretation of "the authoritative sources" of international law, a legal dogmatic method aids in comprehending the state and content of applicable international law as it presently stands, the *lex lata*.[47]

After establishing the existing regulatory framework, the thesis analyzes the relevant international legal sources, as well as provides some references to the national legal regimes regarding Indigenous Peoples' rights. Proposals for *lex feranda* ("the law to be borne" the "ought" or "should" to be of the law) have been done to address some existing problems, gaps, and shortcomings in the existing legal framework. The pertinent international law sources that apply to this thesis are discussed in the subsection that follows.

1.4.1. Applicable Sources of International law

The conventional sources of international law recognized under article 38 of the ICJ Statute[48] – international treaties, customary international law, general principles, jurisprudence, and academic publications of scholars – as well as other sources of international law pertinent to answering the research questions, are used in this thesis.

[44] Hutchinson (2006). Researching and writing in law (2nd ed., pp. XIII, 461). Lawbook Co.
[45] Ibid
[46] Dennis Pearce et, al. (2010), 'A Discipline Assessment for the Commonwealth Tertiary Education Commission', Australian Law Schools, P 7
[47] TC Hutchinson, "Doctrinal research: Researching the Jury" in D Watikns and M Burton (eds), Research Methods in Law (Routledge 2013) 7,7,10
[48] Statute of the International Court of Justice (24 October 1945) 33 UNTS 933.

The law of the sea, human rights law, and biodiversity regulation are now the three primary international legal frameworks that intersect in the regulation of these activities, particularly as it relates to Indigenous Peoples.[49]

Thus, pertinent provisions of general international and regional human rights treaties, as well as Indigenous Peoples-specific human rights accords, have been analyzed. The general human rights treaties include, among others, the European Convention on Human Rights (ECHR),[50]; the International Covenant on Civil and Political Rights (ICCPR);[51] the International Covenant on Economic, Social, and Cultural Rights (ICESCR);[52] and the International Convention on the Elimination of All Forms of Racial Discrimination (CERD Convention).[53] This thesis will explore the ILO Convention 169,[54] a significant indigenous-specific convention. The other conventions and treaties, such as the Convention on Biological Diversity (CBD)[55], which addresses global biodiversity challenges, and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (NP)[56] have been thoroughly examined in relation to the research questions. These treaties are interpreted using the appropriate rules of interpretation under the Vienna Convention on the Law of Treaties (VCLT).

The thesis also analyzes certain instruments that are considered 'soft law'. the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), despite being a legally non-binding instrument, has a special status as a source of international law. The ICJ concluded that UNGA resolutions may have a normative value under certain circumstances;[57] the UNDRIP, adopted by the overwhelming majority of States, is of such nature. The jurisprudence of UN Treaty Monitoring Bodies, including, *inter alia*, the Human Rights Committee (HRC),[58] the

[49] Dieter Dörr Biopiracy and the right to self-determination of Indigenous Peoples International and European Law, Media Law, Johannes Gutenberg-University Mainz, Weg 4, Mainz 55128, Germany, Phytomedicine Volume 53, February 2019, Pages 308-312

[50] European Convention on Human Rights: Convention for the Protection of Human Rights and Fundamental freedoms, adopted at Rome on 04 November 1950 UNTS 2 (Entered into force 3 September 1953)

[51] International Covenant on Civil and Political Rights, concluded at New York on 16 December 1966, 999 UNTS 171 (entered into force 23 March 1976).

[52] International Covenant on Economic, Social, and Cultural Rights, concluded at New York on 16 December 1966,993 UNTS (entered into force 3 January 1976).

[53] International Convention on the Elimination of All forms of Racial Discrimination (CERD Convention), concluded at New York on 21 December 1965, 660 UNTS 195 (Entered into force4 January 1969).

[54] Convention Concerning Indigenous and Tribal Peoples in Independent Countries (ILO Convention 169), concluded at Geneva on 27 June 1989, 1650 UNTS 383 (entered into force 5 September 1991).

[55] The Convention on Biological Diversity of 5 June 1992 (*1760 U.N.T.S. 69*).

[56] Nagoya Protocol, adopted at Nagoya, Japan on 29 October 2010, UN Doc. UNEP/CBD/COP/DEC/X/1

[57] Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion) (1996) ICJ Rep 226, (70)

[58] The HRC was established pursuant to Art 28 of the ICCPR.

Committee on Economic, Social and Cultural Rights (CESCR),[59] and the Committee on the Elimination of All Forms of Racial Discrimination (CERD Committee)[60] are also used in this work, as they address the different rights of Indigenous Peoples in their practice. Finally, the topical studies of the UN Special Rapporteur on the Rights of Indigenous Peoples, the works of different expert bodies, and the UN Permanent Forum on Indigenous Issues have been considered in the thesis.

1.5. Scope Delimitation of the Theis

Several delimitations must be made to answer the thesis question within the scope of this thesis. The focus of the thesis is to cover in depth the international, global treaties and instruments related to the rights of the Indigenous People, regarding FPIC, and access and benefit-sharing concerning the MGRs. Yet, as the thesis focuses on the rights of Indigenous People on ABS, the spatial scope of the thesis is limited to the issues within marine areas under national jurisdiction. Thus, debates relating to ABS of MGRs in marine areas beyond national jurisdiction are excluded. There is also a quite specific issue of digital sequence information (DSI) and its correlation with the Nagoya Protocol. Acknowledging the seriousness and potential impact of this issue on utilizing MGRs and ABS procedures the thesis will slightly touch upon this issue but will not go into any deeper discussions.

There is also a limited scope regarding the depth of the discussions on the implementations of the Nagoya Protocol (NP) at the national level. Considering the vast amount of State parties to the NP and the specificity of the research questions, only a few characteristic examples of national practices are discussed here. These selected examples show the tendencies of NP's implementations on the national level regarding FPIC and the notion of "established rights" regarding Indigenous Peoples' rights among the developing and developed states ("Global South" and "Global North" States).

1.6. Structure of the Thesis

The thesis is organized into an introduction, a two-chapter main body, and a conclusion. The first introductory chapter provides information on the study's topic, the backdrop for the underlying issues, the research questions, the methodology, and the scope and structure of the thesis. The second chapter discusses the substantive and procedural rights of Indigenous

[59] The CESCR was established by the UN Economics and Social Council Res. 1985/17 on 28 May 1985.
[60] The CERD Committee was established under Art 8 of the CERD Convention.

Peoples to lands and natural resources under international human rights instruments. The third chapter discusses Indigenous Peoples' rights on MGRs, interpreting the relevant provisions of the CBD and NP, going into details of Indigenous Peoples' related provisions in NP (Art 6,7,12), discussing the term "established rights" and discovering possible gaps and shortcoming of the NP. The conclusion chapter provides a summary of the objectives that the study has accomplished, i.e. the results and summary from chapters 1 through 3 are provided.

Chapter 2: The Rights of Indigenous Peoples to Marine Natural Resources under International Law

2.1. Introduction:

The 2007 UNDRIP is evidence of the rising worldwide recognition of Indigenous rights. The international indigenous mobilization over the past few decades has played a significant role in this acknowledgment of Indigenous rights.[61] With the approval of the Declaration, the long-debated issue of whether international law protects the rights of Indigenous Peoples received a real conclusion: indigenous rights are human rights, and Indigenous Peoples are equal to other peoples under international law.[62] This chapter provides a brief overview of Indigenous Peoples' rights to natural resources under international law by canvassing some core human rights norms. The chapter serves as a general background from which subsequent chapters will draw.

2.2. Indigenous peoples' rights to marine resources and international human rights law

Coastal Indigenous Peoples' ability to maintain their cultural distinctiveness as a people depends on their continuous utilization of ocean space and marine living resources (MLRs).[63] In general terms, it is worth noting here, that human rights law applies to both land and maritime areas where a state has sovereignty, including internal waters, territorial sea, and archipelagic waters, or exercises "jurisdiction."[64] This is in line with the fact that human rights

[61] Anaya, S. James. 2009. "Why There Should Not Have to be a Declaration on the Rights of Indigenous Peoples." In International Human Rights and Indigenous Peoples, edited by S. James Anaya, 58– 63. Chicago, IL, Rancie`re, Jacques. 2003. The Philosopher and His Poor. London: Duke University Press. Shafir, Gershon, and Alison Brysk. 2006. "The Globalization of Rights: From Citizenship to Human Rights." Citizenship Studies 10 (3): 275– 287 Wolters Kluwer Law & Business.

[62] Allen, Stephen, and Alexandra Xanthaki, eds. 2011. Reflections on the UN Declaration on the Rights of Indigenous Peoples. Oxford: Hart Publishing, A˚ hre´n, Mattias. 2007. "The Saami Convention." GA´LDU CA´LA Journal of Indigenous Peoples Rights, 2 no. 3: 8–39.

[63] V Toki , ' Study on the Relationship between Indigenous peoples and the Pacific Ocean ' , Permanent Forum on Indigenous Issues , UN Doc E/C 19/2016/3 (New York , 2016) [4].

[64] Enyew Endalew Lijalem. "Application of the Right to Permanent Sovereignty over Natural Resources for Indigenous Peoples: Assessment of Current Legal Developments." Arctic Review on Law and Politics 8 (2017): 222-45

are universal and that all States have a need to "promote universal respect for, and observance of, human rights and freedoms".[65] Indigenous Peoples are included in this broad statement of human right law's scope of applicability. Therefore, a coastal state has a responsibility to uphold the human rights of Indigenous Peoples who live on its sovereign territory or are subject to its jurisdiction.

This section examines the degree to which general and indigenous-specific human rights agreements, pertinent case law, and practices of treaty-monitoring bodies recognize the customary rights of Indigenous Peoples to the maritime environment and related resources. The international human rights law standards that are pertinent to Indigenous Peoples' rights to maritime resources and marine space – including the rights to self-determination, culture, property, non-discrimination, and consultation – are briefly examined in this section.

2.2.1. The right to self-determination: The economic dimension in focus

Although the right to self-determination was originally intended to exclusively apply to peoples that were subject to colonial rule or to the "aggregate populations" of a state,[66] it has since changed to apply to Indigenous Peoples in the present.[67] The self-determination provisions of the general global and regional human rights instruments, such as the common article 1 of ICCPR and ICESCR as well as article 20 of the African Charter, have been interpreted to apply to Indigenous Peoples.

Indigenous-specific human rights laws, particularly the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the American Declaration on the Rights of Indigenous Peoples (ADRIP) have expressly recognized the right to self-determination of Indigenous Peoples.[68] The UNDRIP declares that "Indigenous Peoples have the right to self-determination." By virtue of that right, they are free to choose their political status and to build their economies, societies, and cultures.[69] According to James Anaya, the UNDRIP was an important instrument because "Indigenous peoples have been denied equality, self-determination, and associated human rights" and that "exactly because the human rights of indigenous groups have been rejected, with disdain for their character as peoples." These injustices and their lingering consequences could be corrected by indigenous self-

[65] UN Charter, art 1(3); ICCPR, preamble, recital 4; ICESCR, preamble, recital 4; ECHR, preamble, recital 2.
[66] K Knop , Diversity and Self-Determination in International Law (Cambridge University Press , 2002) 58 .
[67] A Farmer , ' Towards a Meaningful Rebirth of Economic Self-Determination: Human Rights Realization in Resource-Rich Countries ' (2006) 39 Journal of International Law and Politics 417, 440 .
[68] American Declaration on the Rights of Indigenous Peoples, AG/Res 2888 (XLVI-O/16), (15 June 2016).
[69] UNDRIP art 3.

determination.[70] The ADRIP offers similar recognition of Indigenous Peoples' right to self-determination. Both documents acknowledge that, in the context of Indigenous Peoples, self-determination may have an internal component, i.e., the exercise of autonomy or self-government in matters related to internal and local affairs, including political, social, cultural, and economic dimensions.[71] Thus, the right to self-determination principally aims to balance the power relations between Indigenous Peoples and nation-states. Such a shift in the balance of power would be extremely difficult to achieve without a relational interpretation of the right to indigenous self-determination, in which the relationship between Indigenous People and the nation-state in which they dwell is primarily one of political equality. It is difficult to envision how Indigenous Peoples might have "the freedom of a people to determine what their future would be" without such an idea of self-determination.[72]

The right to internal self-determination includes Indigenous Peoples' "sovereignty" over natural resources – the economic dimension of self-determination.[73] According to Daes, the term "sovereignty" should be conservatively defined to indicate a "legal right to control, utilize, and manage natural resources" in regard to Indigenous Peoples' assertions of rights to those resources.[74] The ownership, utilization, and management of natural resources that are found within their traditional lands are the rights that they are entitled to exercise.[75] Thus, the sovereign right of Indigenous Peoples over natural resources includes "all the usual instances of ownership right, including the right to utilize or conserve resources, the right to manage and restrict access to resources, the ability to freely dispose of or sell resources and associated interests."[76] The global human rights documents[77] similarly acknowledge that everyone has the unalienable, unrestricted right to dispose of natural resources. They maintain that peoples have the authority to decide how to use natural resources and that they are the only ones who profit from their exploitation.[78] The right of Indigenous Peoples to freely dispose of natural resources has been implemented through treaty-monitoring organizations in their unique settings. The right to economic self-determination has been affirmed by the Human Rights

[70] Anaya, S. James. 2009. "Why There Should Not Have to be a Declaration on the Rights of Indigenous Peoples." In International Human Rights and Indigenous Peoples, edited by S. James Anaya, 58– 63. Chicago, IL: Wolters Kluwer Law & Business.
[71] UNDRIP, arts 4 and 46; ADRIP, arts 4 and 21(1).
[72] Porter, Robert B. 2002. "The Meaning of Indigenous Nations Sovereignty." Arizona State Law Journal 75: 75– 112
[73] Endalew Lijalem Enyew Application of the Right to Permanent Sovereignty over Natural Resources for Indigenous Peoples: Assessment of Current Legal Development, Arctic Review on Law and Politics Vol. 8, 2017, pp. 222–245
[74]Erica-Irene A. Daes, "Indigenous Peoples' Permanent Sovereignty over Natural Resources", UN Doc. E/ CN.4/Sub.2/2004/30 (Final Report to the Commission on Human Rights, 13 July 2004), para.18.
[75] Ibid
[76] Erica-Irene A. Daes. "Indigenous Peoples' Rights to Land and Natural Resources", in Minorities, Peoples and Self-determination, ed. Nazila Ghanea and Alexandra Xanthaki (Martinus Nijhoff Publishers, 2005), 87.
[77] UDHR; CERD Convention; ECHR.
[78] NJ Schrijver , Sovereignty over Natural Resources: Balancing Rights and Duties (Cambridge University Press , 1997) 36.

Committee (HRC) in several cases, despite the fact that it is beyond the purview of its complaint procedure.[79]

Indigenous Peoples' rights to marine regions and MLRs are covered by this right in equal measure. Although none of these human rights documents define the word "natural resources," it must be understood to include marine natural resources because the term is so wide.[80] As a result, the right to economic self-determination grants Indigenous Peoples the right to own or possess specific marine areas that they occupy or use as a part of their traditional territories, as well as the non-exclusive right to harvest the MLRs present there, for their own needs.[81]

The economic component of the right to self-determination serves as a hub for other substantive and procedural rights relating to natural resources. One of the most important rights connected with the right to PSNR is the right to property, discussed in the next section. Richard Barnes has developed the basic idea of "territorial sovereignty as property," emphasizing this close connection.[82]

2.2.2. Right to marine natural resources as a property right

It goes without saying that one of the most frequent causes of ethnic conflict in the world in recent decades has been Indigenous Peoples' struggles to protect their land and natural resources,[83] and it is this ongoing struggle of indigenous movements around the world that has initially drawn attention to their demands on an international level.[84]

The human rights treaties that are specifically related to Indigenous Peoples explicitly acknowledge Indigenous communities' rights to their traditional lands and natural resources as protected property rights.[85] Similar to this, despite the fact that Indigenous Peoples are not

[79] HRC, Concluding Observation: Norway , UN Doc CCPR/C/79/Add 112 (1999) [17]; HRC, Concluding Observation: Sweden , UN Doc CCPR/CO/74/SWE (2002) [15]; HRC, Concluding Observation: Canada , UN Doc CCPR/C/79/Add.105 (1999) [8]; HRC, Concluding Observation: United States of America , UN Doc CCPR/C/USA/CO/3/Rev.1 (2006) [37]; HRC, Concluding Observation: Mexico , UN Doc CCPR/C/MEX/CO/5 (2010) [22]; HRC, Concluding Observation: Chile , UN Doc CCPR/C/CHL/CO/5 (2007) [19]; and HRC, Concluding Observation: Australia , UN Doc A/55/40, vol I (2000) [506] and [507].

[80] Endalew Lijalem Enyew Application of the Right to Permanent Sovereignty over Natural Resources for Indigenous Peoples: Assessment of Current Legal Development, Arctic Review on Law and Politics Vol. 8, 2017, pp. 222–245

[81] M Fitzmaurice Indigenous Peoples in Marine Areas Whaling and Sealing, The rights of Indigenous Peoples in Marine Areas, Hart Publishing 2019.

[82] Richard Barnes, Property Rights and Natural Resources (Hart Publishing, 2009)

[83]Gurr, Ted R. 1993. Minorities at Risk: A Global View of Ethnopolitical Conflicts. Washington, DC: United States Institute of Peace. Gurr, Ted R. 2000. Peoples Versus States. Minorities at Risk in the New Century. Washington, DC: United States Institute of Peace.

[84] Minde, Henry. 1995. “The International Movement of Indigenous Peoples: An Historical Perspective.” In Becoming Visible – Indigenous Politics and Self-Government, edited by Terje Brantenberg, Janne Hansen, and Henry Minde. Tromso¨: Centre for Sa´mi Studies.

[85] ILO Convention 169, arts 14 – 16; UNDRIP, arts 25 and 26; ADRIP, art 25.

specifically mentioned in the property rights provisions of the general global and regional human rights instruments,[86] treaty-monitoring bodies and human rights courts have determined that these provisions protect Indigenous communities' rights with regard to their traditional lands and natural resources.[87] Indeed, some observers contend that Indigenous Peoples now have a property title to their indigenous lands, territories, and natural resources as rights under customary international law.[88]

This right equally applies to the rights of Indigenous Peoples to marine areas and marine resources. In the ILO Convention 169, "land" is defined broadly. According to Article 13(2), the notion of territories—which encompasses the whole environment of the places that the Indigenous Peoples concerned inhabit or otherwise use— is included when the term "lands" is used in Articles 15 and 16.[89] This broad understanding covers marine areas and marine resources traditionally used by Indigenous Peoples.[90] By explicitly recognizing Indigenous Peoples' rights to "maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources," the UNDRIP contributes to this broader understanding.[91] Cross-referred by Article 13(2), Article 15 of ILO Convention 169 expressly recognizes Indigenous Peoples' rights to the natural resources pertaining to their lands.[92] These rights include the peoples' right to take part in the utilization, administration, and preservation of these resources.[93]

Depending on the type of resource, Indigenous Peoples' sovereign rights over such resources take varied forms. In other words, the type and character of the resource should be taken into account while defining the scope of Indigenous Peoples' sovereign rights over those resources.[94] The Inter-American Court of Human rights (IACtHR) came to the conclusion that, in terms of the scope of rights over culturally significant resources, the right to enjoy

[86] UDHR, art 17; CERD Convention, art 5(d)(v); ECHR, Optional Protocol 1, art 1; ACHR, art 21; ACHPR, art 14.
[87] Mayagna (Sumo) Awas Tingni Community v Nicaragua , Case No 79 (IACtHR , 31 August 2001) [148]; Yakye Axa Indigenous Community v Paraguay , Case No 125 (IACtHR , 17 June 2005) [137] and [143]; Saramaka People v Suriname , Case No 172 (IACtHR , 28 November 2007) [95]; African Commission on Human and Peoples ' Rights v Republic of Kenya (006/2012) [2017] AFCHPR 28; (26 MAY 2017) [128].

[88] International Law Association, Rights of Indigenous Peoples: Final Report (Sofi a Conference, 2012) 27; M Åhrén, Indigenous Peoples ' Status in the International Legal System (Oxford University Press , 2016) 165; J Anaya and RA Williams , ' The Protection of Indigenous Peoples ' Rights over Lands and Natural Resources under the Inter-American Human Rights System ' (2001) 14 Harvard Human Rights Journal 33, 55 .
[89] ILO Convention 169, art 13(2).
[90] For a detailed discussion see, Enyew, Endalew Lijalem "International Human Rights Law and the Rights of Indigenous Peoples in Relation to Marine Space and Resources." The Rights of Indigenous Peoples in Marine Areas. Ed. Stephen Allen, Nigel Bankes and Øyvind Ravna. Oxford: Hart Publishing, 2019. 45–68.
[91] UNDRIP, art 25.
[92] International Labour Organization (ILO), Indigenous and Tribal Peoples Convention, C169, 27 June 1989, C169
[93] ILO Convention 169, art 15(1).
[94] Endalew Lijalem Enyew, Application of the Right to Permanent Sovereignty over Natural Resources for Indigenous Peoples: Assessment of Current Legal Development, Arctic Review on Law and Politics Vol. 8, 2017, pp. 222–245

traditionally owned lands necessarily implies a similar right with respect to the natural resources that have traditionally been used by and essential to the survival of indigenous communities.[95] According to Ahrén, an indigenous group "must fairly retain the same claim over such resources as it does with regard to the land area as such" if it has "traditionally utilized natural resources located on or within its traditional territory."[96] This suggests that native peoples enjoy full, unalienable sovereignty over all naturally occurring resources that are essential to their culture and that are present on the lands and territories they have traditionally owned or occupied. Their rights include the entire freedom to dispose of natural resources and are not just restricted to the right to "participate in the use, management, and conservation of the resources" as stated in article 15(1) of ILO Convention No. 169.

Although the phrase "natural resources" under Article 15 is not defined in the Convention, an interpretation of this clause and Article 13(2) suggests that "natural resources belonging to their lands" includes both terrestrial and marine resources that are found in the maritime areas that coastal Indigenous populations have traditionally occupied or utilized.[97]

Natural resources belonging to their lands are also generally considered to include all surface and subsurface resources that are found on or within any lands or territories that Indigenous Peoples have ownership, possession, and use rights over[98] due to traditional ownership, traditional occupancy, or traditional use.[99]

Generally, it is possible to conclude that the provisions of general human rights documents pertaining to property rights could be read as defending the property rights of Indigenous groups to maritime areas and marine resources. Indigenous Peoples' rights over natural resources can be demonstrated by exercising full ownership rights, whether it exists above or subsurface if it is culturally significant to and customarily used by them. Additionally, Indigenous Peoples have specific rights regarding non-culturally relevant sub-surface resources that are present on their traditional lands and territories. In this regard, Article 15 (2) of ILO Convention No. 169 stipulates certain sets of procedural rights.[100]

2.2.3. Bio-cultural rights: Right to harvest marine resources and access marine areas

[95] Saramaka v. Suriname (n 89), paras. 121 & 141.
[96] Mattias Åhrén, Indigenous Peoples' Status in the International Legal System (Oxford University Press, 2016), 213.
[97] RL Johnstone , Offshore Oil and Gas Development in the Arctic under International Law: Risk and Responsibility (Martinus Nijhoff Publishers , 2014) 61, 63
[98] ILO Convention No. 169, Art. 13(2)
[99] CESCR, General Comment 21: Right of Everyone to Take Part in Cultural Life (art 15, para 1(a) of the International Covenant on Economic, Social and Cultural Rights), UN Doc E/C.12/GC/21 (21 December 2009).
[100] ILO Convention No. 169, Art. 15(2)

The right to culture is a generally acknowledged human right that is included in many legal documents. According to Article 15(1) of the ICESCR everyone has the right to participate in [the community's] cultural life.[101] People from minority groups "must not be denied the right, in community with the other members of their group, to enjoy their own culture," according to Article 27 of the ICCPR.[102] Similar to this, the International Convention on the Elimination of All Forms of Racial Discrimination (hereafter the CERD Convention) emphasizes that everyone has the right to "equal participation in cultural activities."[103] This convention affirms that all cultures are valuable and should be given equal respect and protection since no culture is better than any other.[104] The preservation of Indigenous Peoples' cultures, traditions, and worldviews is also mentioned in the human rights documents that are specifically geared toward Indigenous Peoples. For instance, states are required to take action to "promote the full realization of the social, economic, and cultural rights of [Indigenous] peoples with respect for their social and cultural identity, their customs and traditions, and their institutions".[105] In a similar vein, the UNDRIP affirms the right of Indigenous Peoples to their culture in all of its forms, including their "right to retain, regulate, conserve and develop their cultural heritage, traditional knowledge, and traditional cultural expressions."[106]

The material foundation of culture is arguably the most significant of Indigenous Peoples' various expressions. In its General Comment No. 23, the HRC provided a broad meaning of culture as employed in Article 27 of the ICCPR:

> [C]ulture manifests itself in many forms, including a particular way of life associated with the use of land resources, especially in the case of Indigenous People. That right may include such traditional activities as fishing or hunting and the right to live in reserves protected by law.[107]

This idea of culture has been used by the HRC in several instances involving Indigenous communities under Article 27. The HRC makes it clear that Article 27 not only safeguards the traditional livelihoods of minorities but also permits the adaptation of those livelihoods to contemporary lifestyles and subsequent modern technologies.[108] Similar reasoning was used

[101] ICESCR, art 15(1)(a). Article 27(1) of the Universal Declaration of Human Rights (UDHR)
[102] ICCPR, art 27.
[103] CERD Convention, art 5(e)(vi).
[104] Enyew, Endalew Lijalem "International Human Rights Law and the Rights of Indigenous Peoples in Relation to Marine Space and Resources." The Rights of Indigenous Peoples in Marine Areas. Ed. Stephen Allen, Nigel Bankes and Øyvind Ravna. Oxford: Hart Publishing, 2019. 45–68. Bloomsbury Collections.
[105] ILO Convention 169, art 2(2)(b). See also arts 4(2), 5, 7, 13 and 23.
[106] UNDRIP, arts 15 and 31.
[107] HRC, General Comment No 23(50), UN Doc CCPR/C/21/Rev.1/Add.5 (1994).
[108]HRC, Apirana Mahuika, et al v New Zealand, Communication No 547/1993, UN Doc CPR/C/70/D/547/1993 (27 October 2000) [9.4]

by the CESCR in interpreting ICESCR Article 15(1)(a). According to the Committee, "the strong communal character of Indigenous Peoples' cultural existence... involves the right to the lands, territories, and resources that they have traditionally owned, occupied, or otherwise used or acquired."[109]

The tangible component of the right to culture is expressly acknowledged in the human rights documents that are special to Indigenous Peoples. According to ILO Convention 169, Indigenous Peoples have a unique relationship with their lands, territories, and natural resources that is crucial to the preservation and growth, and development of their culture.[110] Furthermore, Article 23(1) expressly states that Indigenous Peoples' traditional hunting and fishing methods are not only the foundation of their subsistence economies but are also essential to the preservation and further development of their cultures. Accordingly, states parties are required by ILO Convention 169 to acknowledge that such practices are a component of the cultural rights of Indigenous Peoples and to take proactive steps to protect and advance those rights.[111] Articles 11, 12, 15, 25 and 31 of the UNDRIP, provide similar recognition and safeguarding of Indigenous Peoples' rights to natural resources as an essential component of their culture.

Thus, under international human rights law, Indigenous Peoples have the right to their culture, including all of its physical elements. This means that, since such harvesting methods are fundamental and integral to their culture, Indigenous Peoples should be permitted to continue harvesting MLRs.

2.2.4. The right to equality and nondiscrimination in the use of natural resources

In order for Indigenous peoples to fully enjoy their human rights, the right to non-discrimination obliges States to ensure that all forms of prejudice against them be eliminated.[112] Indigenous Peoples must have access to the full range of human rights and fundamental freedoms without restriction or discrimination, according to ILO Convention 169.[113] The right to equality and nondiscrimination cannot be exercised on its own; rather, it must be combined with other human rights, such as the right to property.[114] For instance, states parties are required

[109] CESCR, General Comment 21: Right of Everyone to Take Part in Cultural Life (art 15, para 1(a) of the International Covenant on Economic, Social and Cultural Rights), UN Doc E/C.12/GC/21 (21 December 2009)
[110] ILO Convention 169, art 13(1).
[111] ibid art 23(1)(2).
[112] J Anaya , Indigenous Peoples in International Law , 2nd edn (Oxford University Press , 2004) 129 .
[113] ILO Convention 169, art 3(1).
[114] CESCR, General Comment No 20: Non-discrimination in Economic, Social and Cultural Rights [7]. (art 2, para 2 of the International Covenant on Economic, Social and Cultural Rights), UN Doc E/C.12/GC/20 (2 July 2009).

under Article 5 (d)(v) of the CERD Convention to forbid discrimination in all of its forms when a person is exercising their "right to property alone or in cooperation with others." This includes the responsibility of the CERD Committee to acknowledge and defend Indigenous Peoples' property rights to their communal lands and natural resources. Indigenous Peoples would be discriminated against if this were not done.[115] Thus, the right to equality and nondiscrimination provides a further legal foundation for the acknowledgment of coastal Indigenous People's property rights over their historically utilized maritime regions and MLRs. This norm further implies that a State should recognize the rights of Indigenous Peoples to MGRs if it recognizes the same right to non-indigenous peoples.

2.2.5. Procedural Rights and Protections: The right to consultation and FPIC

The right to consultation is a crucial procedural right that ensures the effectiveness and applicability of Indigenous Peoples' substantive rights pertaining to historically utilized maritime regions and marine resources.[116] States must consult the Indigenous Peoples concerned, through appropriate procedures and in particular, through their representative institutions, whenever consideration is being given to legislative or administrative measures which may directly affect them, according to Article 6(1)(a) of ILO Convention 169.[117] With the goal of obtaining agreement or permission to the proposed actions, the consultation "must be performed in good faith and in a form suited to the circumstances".[118] Similar to this, Article 19 of the UNDRIP requires states to work with coastal Indigenous Peoples in good faith to acquire their FPIC before enacting policies that may have an impact on them.[119] Consultation is required in the specific context of resource exploitation initiatives in Indigenous Peoples' traditional lands and territories, as per Article 15(2) of ILO Convention 169 and Article 32(2) of the UNDRIP. This would compel a coastal state to engage Indigenous groups in good faith prior to "the approval of any project" impacting their historically utilized maritime regions and traditional fishing grounds, especially with regard to projects involving "the development, usage, or exploitation of... resources,"[120] and to include them in impact assessment studies.[121]

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[115] 2 CERD Committee, General Recommendation No 23: Indigenous Peoples (fifty-first session, 1997) [5].
[116] V Tauli-Corpuz , 'Consultation and Consent: Principles, Experiences and Challenges' , International Colloquium on the Free, Prior, and Informed Consultation: International and Regional Standards and Experiences (Mexico City, 8 November 2016) 4 .
[117] ILO Convention 169, art 6(1)(a). See also arts 7, 15 and 16.
[118] ibid art 6(2).
[119] UNDRIP, art 19.
[120] UNDRIP art 32(2); ILO Convention 169, art 15(2), J Anaya, ' Indigenous Peoples ' Participatory Rights in Relation to Decisions about Natural Resource Extraction: The More Fundamental Issue of What Rights Indigenous Peoples Have in Land and Resources ' (2005) 22 Arizona Journal of International and Comparative Law 7.
[121] ILO Convention 169, art 7.

A consultation that is carried out merely to offer information without taking further action is not considered to be conducted in good faith.[122]

International law, in certain circumstances, may also compel the state to secure the FPIC of the impacted community in addition to good faith consultation. Article 32 of the UNDRIP states that: "Indigenous Peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories or other resources. States shall consult with Indigenous Peoples through their own representative institutions to obtain their free prior informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the use of mineral, water or other resources."[123]

Moreover, FPIC should be needed in two distinct and distinguishable situations: where an Indigenous community is required to be relocated from historically utilized maritime areas and fishing grounds as part of the planned project,[124] and when hazardous waste is to be stored or disposed of in those areas.[125]

Therefore, it should be underlined that the rights to consultation and FPIC serve as significant procedural protections against any actions, including resource development projects, that entails transferring ownership of rights to access, control, or use of the marine environment and the related resources away from the coastal Indigenous groups that have used the marine environment traditionally. The right to FPIC is a significant right in the context of access and benefit sharing of MGRs and is discussed in detail in Chapter 3 below.

2.2.6. Have human rights law recognize the rights of Indigenous Peoples to MGRs?

As shown above, none of the human rights instruments has defined the term natural resources. Thus, Indigenous Peoples' rights to "natural resources" may include rights to marine genetic resources (MGRs). Indeed, Article 31 of the UNDRIP expressly provides that: "Indigenous Peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge, and traditional cultural expressions, as well as… *genetic resources*, seeds, medicines, knowledge of the properties of flora and fauna…".[126] Although the prefix term "marine" is not included, there is no reason why this provision does not include MGRs. This further implies that the substantive and procedural rights discussed in this chapter equally

[122] ILO Committee of Experts on the Application of Conventions and Recommendations (CEACR), General Observation on the Right of Indigenous and Tribal Peoples to Consultation (Observation 2010/81) 8 – 9.
[123] Ibid art 32
[124] ILO Convention 169, art 16; and UNDRIP, art 10.
[125] UNDRIP, art 29(2).
[126] Ibid art 31 (emphasis added).

apply to the rights of Indigenous Peoples relating to access and benefit sharing of MGRs. International law instruments concerning biodiversity protection, specifically the CBD and the NP, offer more explicit provisions recognizing and protecting the rights of Indigenous Peoples relating to access and benefit sharing of MGRs although the capacity of such instruments to offer effective protection might be questioned. The following chapter explores this issue in more detail.

4. Conclusion

Human rights law does not specifically guarantee Indigenous Peoples' rights with regard to marine regions and resources, although it is conceivable to infer such rights protections from general legal principles and rules that apply to traditional "lands" and "natural resources."[127]

Thus, Indigenous Peoples' rights to traditionally used marine areas and MLR (including MGRs) are covered by certain human rights norms, such as the right to self-determination, the right to cultural integrity, the right to property, the right to non-discrimination, and the right to consultation and participation and additionally, safeguarded and adapted through interpretation of judicial and treaty bodies.

Chapter 3: Rights of Indigenous Peoples relating to Access and Benefit Sharing of Marine Genetic Resources

3.1. Introduction

The CBD, signed in Rio de Janeiro in 1992, and the Nagoya Protocol (NP), signed in 2010, are two important international instruments in terms of biodiversity protection. These treaties deal directly with Indigenous Peoples' fair and equitable participation in the benefits resulting from commercial genetic resource exploitation, as well as free, prior, and informed consent. While research and utilization of marine genetic resources may provide biotechnology corporations with potential socioeconomic gains, problems of justice and fairness remain when such efforts impact indigenous communities.[128] The indigenous communities' participation is critical in ensuring that the benefits obtained from the exploitation of genetic resources are shared fairly and equitably, as well as that Indigenous Peoples' traditional knowledge and values are

[127] Enyew, Endalew Lijalem "International Human Rights Law and the Rights of Indigenous Peoples in Relation to Marine Space and Resources." The Rights of Indigenous Peoples in Marine Areas. Ed. Stephen Allen, Nigel Bankes and Øyvind Ravna. Oxford: Hart Publishing, 2019. 45–68.

[128] Atapattu at 381; Janis Geary et al., Access and Benefits Sharing of Genetic Resources and Associated Traditional Knowledge in Northern Canada, 72 INT'L J. CIRCUMPOLAR HEALTH 21,351, 21,357 (2013). A

safeguarded and respected.[129] The CBD sets a goal for protecting Indigenous Peoples' rights by recognizing the concept of access to genetic resources and a fair and equitable benefit sharing system.[130] This issue refers to how and to what degree genetic resources may be accessed, as well as how the benefits gained from commercial exploitation of genetic resources should be shared in a fair and equitable manner between those who use the resources and those who give them. Benefit sharing is primarily designed to resolve developing States' worries about industrialized States' usage of their natural resources. Benefit-sharing aims to ensure that all users of resources, not only biotechnology corporations, have access to them and that the benefits derived from their use are shared by every actor involved. This mutuality applies to any usage of natural resources as well as any policy that may have a detrimental influence on Indigenous Peoples' rights.[131]

This chapter, therefore, explores the extent to which the biodiversity regime, particularly the CBD and the NP, offer mechanisms that encourage the many players involved in the utilization of genetic resources in a sustainable manner and recognize the right of Indigenous Peoples to benefit sharing and free, prior, and informed consent.

3.2.Access and benefit-sharing of MGRs under the CBD (Bonn Guidelines) and NP

3.2.1. What are MGRs?

While moving along through the existing international ABS framework it would be useful to get into the definition of the term marine genetic resources (MGRs). It should be noted that an internationally agreed legal definition of MGR does not exist.[132] This term and the concept itself is more of a biological nature and has been never formally described in legal texts,[133] it is not mentioned or defined in any way by UNCLOS.[134]

However, the CBD may serve as a starting point to define MGRs. Article 2 of the CBD defines the term "biological resources", "genetic material" and "genetic resources". "Genetic

[129] Elisa Morgera & Elsa Tsioumani, The Evolution of Benefit Sharing: Linking Biodiversity and Community Livelihoods, 19 REV. OF EURO. COMP. & INT'L ENVTL. L. 150, 162, 173 (2010).
[130] Convention on Biological Diversity, at art. 1.
[131] Morgera & Tsioumani, at 160, 164.
[132] Thomas Greiber, 'IUCN Information Papers for the Intersessional Workshop on Marine Genetic Resources 2- 3 May 2013, United Nations General Assembly Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction', International Union for Conservation of Nature (IUCN) Environmental Law Centre. Bonn, Germany, p. 1.
[133] M. Vierros, C. A. Suttle, H. Harden-Davies, G. Burton, Who owns the ocean? Policy issues surrounding marine genetic resources. Limnol. Oceanogr. Bull. 25, 29–35 (2016).
[134] Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397.

resources" are defined as "genetic material of actual or potential value"; and genetic material is defined as "any material of plant, animal, microbial or other origin containing functional units of heredity".[135] Thus, genetic material, that contains in itself "actual or potential value" could be characterized as a genetic resource. It could be noted that the term being rather ambiguous and broad requires some scientific clarity and additional interpretation,[136] specifically "functional units of heredity, hence cells of living organisms contain those heredity's units (DNA or RNA)[137], thus encompassing all kingdoms of life (both macro-and microorganisms/viruses).[138]

It goes without saying that genetic resources play a growing role in various economic sectors, including pharmaceuticals, agriculture, biotechnology, bioremediation, cosmetics, food, nutraceuticals, industrial processes, and scientific research.[139] As to the question of the "values" of MGR, it is worth mentioning that the global ocean contains approximately 2.2 million species of marine animals and a trillion of different types of microorganisms.[140] Although, the "actual or potential value" of the MGR is not just an economic or commercial value, but also a value that can be considered in scientific, environmental, educational, ecological, cultural, and societal terms.[141] The MGR and its values could be found in various ecosystems and associated biodiversity[142] including present and future values that are attributed to MGR that have a "potential value".[143]

The logic of defining the MGRs could use the same logic as in defining the "genetic resources" in CBD, thus MGR could be defined as "genetic material of marine origin of actual or potential value". Put simply, MGRs can be described as "material from marine plants, algae, animals, and microbial or other organisms, and parts thereof containing functional units of heredity of actual or potential value."[144]

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[135] The Convention on Biological Diversity of 5 June 1992 (1760 U.N.T.S. 69)
[136] https://www.dosi-project.org/wp-content/uploads/DOSI-Commentary.BBNJ_.IGC4_.pdf
[137] Lyle Glowka et al., p. 22
[138] U.N. Secretary-General, Oceans and the law of the sea, 40–1, U.N. Doc. A/62/66 (Mar. 12, 2007).
[139] David Leary et al., 'Marine genetic resources: A review of scientific and commercial interest', Marine Policy 33 (2009), p. 183-194, Ana Martins, et al., 'Marketed Marine Natural Products in the Pharmaceutical Industries: Tips for Success', Marine Drugs 2014, 12(2),
[140] Locey, Kenneth J., and Jay T. Lennon. "Scaling laws predict global microbial diversity." Proceedings of the National Academy of Sciences 113.21 (2016): 5970-5975.
[141] Commission on Genetic Resources for Food and Agriculture. Global plan of action for the conservation, sustainable use and development of forest genetic resources. Commission on Genetic Resources for Food and Agriculture, FAO, 2014
[142] Secretariat of the Convention on Biological Diversity. Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the convention on biological diversity. UNEP, 2011
[143] Lyle Glowka, et al., 'A Guide to the Convention on Biological Diversity, IUCN Environmental Law Centre, Environmental Policy and Law Paper No. 30, p. 22.
[144] CBD art.2.

The Nagoya Protocol used the CBD's approach of using the sovereign rights of States over their natural resources as the foundation for the ability to make decisions on access to MGRs.[145] In addition to "populations, or any other biotic component of ecosystems with present or prospective utility or value for mankind," MGR is also viewed as a subclass of "biological resources."[146] Despite the fact that this specific reference increased the level of legal certainty significantly,[147] MGR still lacks precise definitional clarity. It is still unclear what exactly constitutes "actual or potential worth" or "functional units of heredity" from a legal and scientific perspective.[148] In general, the word "natural resources is considered a larger concept than that of "biological resources" in that it encompasses not just living species but also non-living organisms that are not part of diversity but vital to its survival, such as water, soil, and land.[149]

It seems like it is, being a common practice in international legislation that, it lacks some crucial legal definitions for the different terms (IP, TK, MGR). One may find this "approach" useful for developed countries. The legal uncertainty in definitions, when it is used by more "powerful" players in a "real life" practical perspective is always a gain.

3.2.3 Access and Benefit Sharing of MGRs under the CBD

The CBD covers most of the world's genetic resources (GRs).[150] The CBD's acceptance as one of the three "Rio Conventions" represented a paradigm change. For the first time, an international agreement with conservation as its overarching purpose acknowledged the relevance of social, economic, scientific, educational, cultural, recreational, and aesthetic values for conservation.[151] Different aims and interests were therefore recognized as being mutually reinforced or complementary, in the spirit of the Rio Earth Summit and the Brundtland Report.[152] The CBD has been the most recognizable international framework for addressing global biodiversity challenges.[153] The CBD was a historic agreement because it

[145] NP art. 6(3).
[146] CBD art. 2(1).
[147]Tvedt, Morten Walløe and Tomme Young, 53 (2007). Beyond Access: Exploring Implementation of the Fair and Equitable Sharing Commitment in the CBD. IUCN, Gland, Switzerland, Environmental Policy and Law Paper No. 67/2
[148] L Glowka, A Guide to Designing Legal Frameworks to Determine Access to Genetic Resources (IUCN 1998) 31.
[149] U Beyerlin and V Holzer, 'Conservation of Natural Resources' in R Wolfrum (ed), Max Planck Encyclopedia of Public International Law (Oxford University Press 2009).
[150] See Convention on Biological Diversity, at arts. 2, 4, 15.
[151] G. Kristin Rosendal, "Balancing Access and Benefit Sharing and Legal Protection of Innovations From Bioprospecting" (2006) 15:4 The Journal of Environment & Development at 430, 431.
[152] Report of the World Commission on Environment and Development: Our Common Future, transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment, UN General Assembly 96th plenary meeting, 11 December 1987.
[153] Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79 (CBD)

connected environmental concerns to cultural, social, and scientific interests in addition to addressing environmental issues.[154] The CBD's three goals, outlined under article 1, focus on the importance of not only biodiversity protection and sustainable use of its components, but also the fair and equitable distribution of benefits generated from the use of genetic resources.[155]

The CBD's goal of biodiversity conservation supports the notions of intergenerational justice by protecting resources for future generations. Additionally, the CBD's requirements for prior informed consent for the use of traditional knowledge and genetic resources have their roots in procedural justice. Finally, "international justice in exchange" that attempts to establish the equity, or the fairness of transactions necessitates the CBD's rules demanding the fair and equitable sharing of the benefits from the use of genetic resources.[156]

Indeed, the CBD was adopted in an aim to ease access to genetic resources as well as to stop the unchecked loss of biodiversity, which is mostly occurring in the "Global South" (developing countries).[157] However, the agreement was also made to address issues with a specific perceived unfairness called "biopiracy." The term "biopiracy" could be explained as the patenting of innovations based on biological resources and/or traditional knowledge that are taken without sufficient consent and benefit-sharing from other (often developing) countries, Indigenous Peoples, or local communities.[158] According to the CBD, genetic resources should be regarded as the property of sovereign nations who grant access to them in accordance with the principles of prior informed consent (PIC), mutually agreed terms (MAT), and fair and equitable benefit-sharing, rather than as the common heritage of humanity that is freely accessible to all.[159] According to Daniel Robinson, the CBD is a difficult compromise reached by nations with large biodiversity, sometimes known as the "Global South".[160]

Articles 8(j) and 15 of the Convention provide core principles and procedural requirements for access and benefit-sharing (ABS) with respect to genetic resources (GRs) and

[154] Konstantia Koutouki & Katharina Rogalla von Bieberstein, The Nagoya Protocol: Sustainable Access and Benefit-Sharing for Indigenous and Local Communities, 13 Vt. J. Envtl. L. 513, 518 (2011).
[155] ibid art 1.
[156] For the detailed discussion see Schroeder Doris and Pisupati Balakrishna Ethics, Justice and the Convention on Biological Diversity Published: October 2010 Copyright: United Nations Environment Program Design: CD Marketing Ltd, UK., see also CBD, arts. 3, 8 & 15. William W. Fisher, Toward Global Protection for Traditional Knowledge (Centre for International Governance. Innovation, Paper No. 198, November 2018).
[157] Ina Lehmann, The Distributive Justice of the International Biodiversity Regime: An Argument for a Multifaceted Measurement (July 2012).
[158] Daniel Robinson, Confronting Biopiracy: Challenges, Cases, and International Debates 24 (2010), Lorna Dwyer, Biopiracy, Trade, and Sustainable Development, 19 Colo. J. Int'l Envtl. L. & Pol'y 219, 227 (2008); Kaitlin Mara, Indigenous Groups Express Concerns on IP Protection of Their Knowledge, Intel. Prop. Watch (Mar. 3, 2008).
[159] Ibid, art. 3, 8, 15, Cynthia M. Ho, Biopiracy and Beyond: A Consideration of Socio-Cultural Conflicts with Global Patent Policies, 39 U. Mich. J. L. Reform 433, 473 (2006).
[160] Robinson, D. F. (2014). Biodiversity, Access and Benefit-Sharing: Global Case Studies (1st ed.). Routledge

traditional knowledge (TK), including the principles of prior informed consent (FPIC), mutually agreed terms and fair and equitable benefit-sharing. Benefit-sharing in the CBD has various nuances that must be considered. According to Article 8(j) of the CBD, "indigenous and local communities reflecting traditional lifestyles essential for the conservation and sustainable use of biological diversity" are recognized for their "knowledge, inventiveness, and practices."[161]

Thus, in conformity with domestic law, state parties are required under the CBD to promote "the fair sharing of the advantages emerging from the exploitation of such knowledge" and genetic resources.[162]

Before accessing genetic resources, parties must get free, prior, and informed consent (Article 15).[163] In order to ensure the fair and equitable sharing of benefits resulting from the commercial or other exploitation of these genetic resources with the Contracting Party supplying such resources, Article 15 CBD also states that access shall be based on mutually agreed terms (MAT). Article 8(j) CBD covers ABS regarding traditional knowledge, in addition to controlling access to genetic resources and the distribution of the benefits emerging from their use. The clause fosters the equitable distribution of the benefits resulting from the use of the TK associated with genetic resources and encourages its broader application with the consent and cooperation of the holders.[164] The FPIC of indigenous TK holders, however, as it was debated by Parties and stakeholders is not an obligation, according to Article 8(j).[165] These debates are rooted in the weak language of Article 8(j) of the CBD which drew a lot of criticism: using terms like "each Contracting Party should, as far as practicable and appropriate, according to its national legislation," "promote," "encourage"…..[166]

In response to this discussion the Fifth Meeting of the Conference of the Parties (COP5) in 2000,[167] stated an approach that access to TK of Indigenous Peoples should be governed by the PIC of its holders.[168] However, the question of whether this is a recommendation or an

[161] Zafar M. Nomani, The Access and Benefit-Sharing Regime: An Environmental Justice Perspective, 49 Env't Pol'y & L. 259, 260 (2019).
[162] Daniel Robinson, Confronting Biopiracy: Challenges, Cases, and International Debates 24 (2010). See also International Treaty on Plant Genetic Resources for Food and Agriculture, Preamble, Mar. 11, 2001, 2400 U.N.T.S. 303.
[163] Id. at art. 15(5).
[164] Ibid art. 15, art 8(j)
[165] Evanson Chege Kamau, Bevis Fedder, & Gerd Winter, The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What Is New and What Are the Implications for Provider and User Countries and the Scientific Community? 6/3 L. ENV'T & DEV. J. 246 (2010)
[166] Ibid.
[167] UNEP/CBD/COP/5/23, decision V/16.
[168] Nijar Gurdial Singh, Incorporating Traditional Knowledge in an International Regime on Access to Genetic Resources and Benefit Sharing: Problems and Prospects, 21:2 EUROPEAN. J. OF INT'L L. 457, 459 (2010).

obligation under international law persists because the CBD's wording was never changed to call for such consent.

In this new paradigm, which is also intended to consider the genetic resources and traditional knowledge (TK) possessed by Indigenous Peoples "as a commodity that will be exchanged by [them] in return for monetary and non-monetary advantages [...]," Indigenous Peoples' first appear to fit rather awkwardly.[169]

Article 15 of the CBD recognizes a State's sovereign right to control access to genetic resources and provides that State parties have discretion in deciding how to proceed in order to achieve an equitable sharing system.[170] Article 15 simply requires the government to implement the required steps to share benefits with the Indigenous communities and does not provide similar rights to the Indigenous Peoples in whose territory genetic resources are situated. In other words, this system acknowledges that Indigenous groups are the guardians of genetic resources, but it does not go far enough to ensure that they will also benefit from their utilization.[171] However, it should be specifically noted that the CBD exclusively governs relationships between contractual parties and does not take into account the involvement of third parties such as nonprofit organizations or indigenous communities.[172]

Thus, it would be safe enough to conclude that the CBD is more concerned with ensuring access to genetic resources and sharing the advantages of those resources than the safeguarding of indigenous traditional knowledge and the well-being of indigenous and local communities. That is to say that the Convention was not created with the main goal of protecting the TK of Indigenous Peoples. The CBD framework acknowledges the Indigenous Peoples' position as stewards of genetic resources, but it falls short of ensuring their involvement in the advantages that result from their utilization.[173] Mostly because of this, various developing State groupings, such as the Group of 77 and China, as well as the Group of Like-Minded Megadiverse Countries (LMMC) advocated for the adoption of an ABS protocol.[174] Consequently, the Working Group-ABS was tasked at COP 7 (2004) with drafting

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[169] Bavikatte, K., Jonas, H., & von Braun, J. (2010) p 294. Traditional Knowledge and Economic Development: The Biocultural Dimension. In S. M. Subramanian & B. Pisupati (Eds.), Traditional Knowledge in Policy and Practice: Approaches to Development and Human Well-Being (pp. 294–326). United Nations University Press

[170] Ibid art. 15(1)

[171] Zafar M. Nomani, The Access and Benefit-Sharing Regime: An Environmental Justice Perspective, 49 Env't Pol'y & L. 259, 260 (2019).

[172] Ibid art. 4

[173] Khor Martin, INTELLECTUAL PROPERTY, BIODIVERSITY AND SUSTAINABLE DEVELOPMENT: RESOLVING THE DIFFICULT ISSUES 40 (2002); Chidi Oguamanam, Genetic Resources & Access and Benefit Sharing: Politics, Prospects and Opportunities for Canada after Nagoya, 22 J. ENVTL. L. & PRAC. 87, 103–04 (2011)

[174] Swiderska, Krystyna. "What happened at Nagoya?", International Institute for Environment and Development (November 2010), online: iied <http://www.iied.org/natural-resources/keyissues/biodiversity-and-conservation/what-happened-nagoya>.

and negotiating an international ABS regime in collaboration with the Working Group on Article 8(j).[175]

I. The Bonn Guidelines

Due to the intricacy of the issues addressed and the lack of guidance as to ABS procedures provided by the CBD as a framework convention, its implementation has been rather slow and not quite achieving the goals[176] of "fair and equitable benefit sharing."[177] This triggered the Conference of the Party to the CBD to establish an AD Hoc Open-ended Working Group on ABS with the mandate to develop guidelines.[178] Parties unanimously adopted (by some 180 countries) the non-binding and voluntary Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization (Bonn Guidelines) in 2002 in an attempt to guide and foster ABS implementation in domestic legislation.[179]

The Bonn Guidelines set some details on prior informed consent, such as deadlines and timing, special procedures for getting FPIC, consultation mechanism, and specifications of use of MGRs.[180] According to the Bonn Guidelines, a benefit-sharing system should be developed and adopted on a regional and national level.[181] The guidelines also describe the fundamental roles and duties of users and providers, as well as the basic prerequisites for MAT, providing more detail on ABS and FPIC.[182] It should be noted, that apart from the Guidelines' voluntary, non-binding character, Indigenous Peoples have criticized them for neglecting to distinguish between their role and that of any other stakeholder participating in resource management.[183]

As a result, their involvement in ABS is more an issue of national recognition of Indigenous local communities' rights than of rights enforcement and recognition on an international level.[184]

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[175]CBD, Working Group on Article 8(j), online: CBD <http://www.cbd.int/convention/wg8j.shtml>
[176] Ibid
[177] Bram de Jonge and Niels Louwaars, "The Diversity of Principles Underlying the Concept of Benefit-Sharing", Nijar, The Nagoya Protocol on Access and Benefit Sharing of Genetic Resources: Analysis and Implementation Options for Developing Countries at 7
[178] Kamau, Fedder & Winter, "The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What is New and what are
the Implications for Provider and User Countries and the Scientific Community?" at 248.
[179] Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, in Report of the Sixth Meeting of the Conference of the Parties to the Convention on Biological Diversity, UN Doc. UNEP/CBD/COP/6/20 (2002).
[180] Id. at 9.
[181] See Bonn Guidlines, at 8.
[182] Ibid
[183] Bieberstin Katharina & Koutouki Konstantia, The Nagoya Protocol: Status of Indigenous and Local Communities (2011).
[184] Miriam Dross & Franziska Wolff, New Elements of the International Regime on Access and BenefitSharing of Genetic Resources - the Role of Certificates of Origin (Bonn: German Federal Agency for Nature Conservation, 2005) at 19

Furthermore, the Guidelines have been criticized for focusing too much on the access side, and hence on provider country measurements rather than user country ones.[185] While access to genetic resources and the agreement to share benefits occurs in the nation that provides them, the actual use of the genetic resources, and therefore the benefits triggering moment, normally takes place in a different jurisdiction - the user country. The importance of user-country procedures has been emphasized to guarantee compliance with the provider country's domestic ABS law and to monitor the use of genetic resources and related TK in order to enforce benefit-sharing agreements.[186] Despite the mentioned flaws, the Bonn Guidelines did provide more practical details on the various elements in the ABS process, and it set a foundation for further development of Indigenous Peoples' rights, triggering the process of adopting a binding international instrument.

3.2.2. Nagoya Protocol as Implementation of the CBD's ABS Rules

I. The drafting history of the Nagoya Protocol:

The Nagoya Protocol, which was adopted in Nagoya, Japan, in October 2010, was adopted more than 18 years after the CBD was adopted. The Contracting Parties to the CBD investigated, debated, expanded upon, and further bargained the ABS idea throughout this period. There were three distinct phases and significant turning points throughout the long journey to Nagoya.[187]

Phase 1: ABS Developments Prior to International Regime Negotiations

The CBD Conference of the Parties (COP) has tackled the ABS issue from the outset. ABS was designated as agenda item 6.6 of the Conference of the Parties' medium-term program of action at the inaugural COP (1994, Nassau, Bahamas).[188] In the years that followed, the CBD COP 2 (1995, Jakarta, Indonesia) and CBD COP 3 (1996, Buenos Aires, Argentina) solicited, evaluated, and analyzed formulations of national, regional, and sectoral legislative, administrative, and policy measures as well as procedures regarding the participation and guidelines for activities covered by Article 15, including information on the interpretation of ABS key terminology, case studies, and implementation experiences.[189] After CBD COP 4

[185] Ibid
[186] Cabrera Medaglia, The Political Economy of the International ABS Regime Negotiations: Options and Synergies with Relevant IPR Instruments and Processes
[187] For detailed information on the ABS history, see the CBD website at www.cbd.int/abs/ background/#timeline.
[188] See CBD COP 1 decision I/9, Medium-term program of work of the Conference of the Parties, Retrieved from https://www.cbd.int/doc/?meeting=cop-01
[189] See CBD COP 2 decision II/11, Access to genetic resources, and COP 3 decision III/15, Access to genetic resources.

(1998, Bratislava, Slovakia), when a regionally balanced expert group on ABS was established and the work on ABS under the Convention was legally launched, ABS advancements intensified.[190]

By creating the *Ad Hoc* Open-ended Working Group on ABS (AHWG), which had the responsibility of creating guidelines and other approaches for submission to the COP on FPIC and MAT, stakeholder participation, benefit-sharing mechanisms, and the preservation of traditional knowledge, CBD COP 5 (2000, Nairobi, Kenya) further approved and formalized the continuing ABS process.[191] As highlighted above, the Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising from Their Utilization (Bonn Guidelines) draft was created by the AHWG at its first meeting in Bonn, Germany (2001); it was later accepted with few modifications at CBD COP 6 (2002, The Hague, Netherlands).[192]

Phase 2: The mandate to negotiate a universal, comprehensive, international ABS regime.

The "Johannesburg Plan of Implementation," which was approved at the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, included many allusions to ABS. The international community demanded, among other things, that steps be taken to negotiate an international regime to support and safeguard the fair and equitable distribution of benefits resulting from the use of genetic resources[193] within the context of the CBD, taking the Bonn Guidelines into consideration. Following this appeal, the CBD COP 7 (2004, Kuala Lumpur, Malaysia) tasked the AHWG to "elaborate and negotiate a worldwide regime on access to genetic resources with the assistance of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions, guaranteeing the involvement of indigenous and local communities, non-governmental organizations, industry, and scientific and academic institutions, as well as intergovernmental organizations", with a goal to adopting an instrument or instruments to successfully fulfill the Convention's three goals, as well as the requirements in Articles 15 and 8(j).[194]

By doing this, COP 7 put the WSSD call to action within the framework of the CBD and expanded the AHWG's mandate to include issues of access as well as benefit-sharing. Additionally, the AHWG's terms of reference for negotiating the global regime were established by CBD COP 7.[195]

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[190] See CBD COP 4 decision IV/8, Access and benefit-sharing .Retrieved from https://www.cbd.int/doc/?meeting=cop-04
[191] See CBD COP 5 decision V/26, Access to genetic resources, Retrieved from https://www.cbd.int/doc/?meeting=cop-05
[192] See CBD COP 6 decision VI/24, Access and benefit-sharing as related to genetic resources, Retrieved from https://www.cbd.int/doc/?meeting=cop-06
[193] Plan of Implementation of the World Summit on Sustainable Development, Chapter IV, Paragraph 44 (o).
[194] See CBD COP 7 decision VII/19, Access and benefit-sharing as related to genetic resources (Article 15), D. 1, Retrieved from https://www.cbd.int/doc/?meeting=cop-07
[195] 17 Ibid., Annex

Phase 3: The process of negotiations

The third and fourth AHWG sessions, held in 2005 in Bangkok, Thailand, and 2006 in Granada, Spain, respectively, produced compilations of a draft text that served as the starting point for subsequent negotiations. The AHWG was given the task of continuing the development and negotiation of the global regime at the CBD COP 8 that followed (2006, Curitiba, Brazil). The notion of a globally recognized certificate of origin, and certificate of source, was explored and elaborated upon by a team of technical specialists. Additionally, the AHWG was tasked with finishing its elaborations and drafts, as soon as feasible, but in any scenario before COP 10.[196]

The CBD AHWG was given the instructions by CBD COP 9 (2008, Bonn): "to effectively implement the provisions in Article 15 and Article 8(j) of the Convention and its three objectives."[197]

The CBD COP 10 in Nagoya lasted the whole two weeks, and negotiations went on the entire time. In the first plenary session of COP 10, an Open-ended Informal Consultative Group on ABS (ICG) was created to aid in the ABS talks. Utilization and derivatives, scope, emergency access to genetic resources, relationships with other international instruments, checkpoints, and obligatory disclosure requirements, as well as difficulties relating to traditional knowledge, were among the major challenges that required compromise. A compromise document was submitted by the Japanese COP Presidency as a starting point for Ministerial informal consultations when it became apparent that the ICG would not be able to reach a consensus on a final text.[198]

The Nagoya Protocol was accepted by COP 10 Decision X/1 on October 29, 2010. The Nagoya Protocol being a package deal was a component of the Strategic Plan for Biodiversity 2011-2020, which also included the Aichi Targets[199] and the Resource Mobilization Strategy[200].

II. Indigenous People's involvement in the negotiations of the Nagoya Protocol

From 2006 until 2010, when the Access and Benefit Sharing International Regime was finally adopted as the Nagoya Protocol, the International Indigenous Forum on Biodiversity, the Indigenous Women's Network on Biodiversity (IWBB) from Latin America and the Caribbean

[196] See CBD COP 8 decision VIII/4, Access and benefit-sharing, A, https://www.cbd.int/doc/?meeting=cop-08
[197] See CBD COP 9 decision IX/12, Access and benefit-sharing, 3, https://www.cbd.int/doc/?meeting=cop-09
[198] See COP 10 Decision X/33 (2010), https://www.cbd.int/doc/?meeting=cop-10.
[199] See CBD COP 10 Decision X/2, The Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets.
[200] See CBD COP 9 Decision IX/11, Review of implementation of Articles 20 and 21, and CBD COP 10 Decision X/3, Strategy for resource mobilization in support of the achievement of the Convention's three objectives.

participated in several negotiations.[201] Indigenous Peoples were to have the rights to "full and effective participation in all matters that concern them and their right to remain distinct and to pursue their own visions of economic and social development" through the UNDRIP[202]; however, the experience of Indigenous Peoples participating in the drafting and implementation of the Nagoya Protocol shows how complicated it was to achieve this goal.[203] It was extremely difficult to negotiate since the Nagoya Protocol's main principles conflict with the way of life of Indigenous Peoples and require it to address intricate technological concerns and trade. The Western world sees the Earth as a planet full of resources to be utilized for financial gain without caring for her natural resources or her human inhabitants, but Indigenous Peoples perceive the Earth as a mother to be cared for, respected, and cherished.[204]

There were also other procedural difficulties that Indigenous People had to face during the negotiating process dealing with the issues of their participation in it, so there were some objective reasons for Indigenous Peoples to perceive the Access and Benefit Sharing International Regime as being written from a Western perspective.[205] The right of Indigenous Peoples to full and effective involvement in Protocol negotiations - which, under international law, must entail "full and meaningful" engagement -was not acknowledged or ensured well enough. Most States considered the discussions to be between the State Parties. Indigenous or local community interventions were often viewed as a rare luxury.[206]

Financing for Indigenous Peoples' involvement was insufficient to guarantee that enough Indigenous Peoples would be able to participate and prepare for the Protocol negotiations, although their rights could have been significantly impacted by the negotiation of a new international treaty, like the Protocol the international bodies and Parties did not fulfill their responsibilities in this regard. Thus, the number of delegates at the negotiations was insufficient to provide thorough study, prompt elaboration of views, and timely consultations with the States and the European Union.[207] Additionally, there were not enough representatives with the required legal and technical knowledge present at the bargaining table. During the

[201] Bavikatte and Robinson, 2011 Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing vl.7 Law, Environment and Development Journal.
[202] UNDRIP para. 5
[203] Committee on the Elimination of Racial Discrimination 80th Session 13 February - 9 March 2012 United Nations, Geneva, Response to Canada's 19th and 20th Periodic Reports: Alternative Report on Canada's Actions on the Nagoya Protocol 28.
[204] Teran, M. Y. (2016). The Nagoya Protocol and Indigenous Peoples. The International Indigenous Policy Journal, 7(2).
[205] Ibid.
[206] Expert Mechanism on the Rights of Indigenous Peoples, Fourth session, Geneva 11-15 July 2011, Agenda Item 4: Study on Indigenous Peoples and the right to participate in decision-making Nagoya Protocol on Access and Benefit Sharing: Substantive and Procedural Injustices relating to Indigenous Peoples' Human Rights 151-152.
[207] Ibid163.

final phases, it was almost difficult to properly engage in the several meetings that were held concurrently in Nagoya, Japan.[208]

To minimize or ignore the rights of Indigenous Peoples and local communities, several States took advantage of the practice of seeking consensus among Contracting Parties. Given that the procedures were biased in favor of States, the process proved to be exceptionally difficult for Indigenous Peoples.[209] Indigenous Peoples were excluded from any consensus on clauses addressing their rights and concerns. No suggested Protocol changes from Indigenous Peoples were allowed to be submitted. Indigenous suggestions had to have the backing of at least one Party to be added to the text.[210]

Discriminatory measures that went against the Convention and aimed to only address "established rights"[211] to genetic resources were also approved through consensus. In Nagoya, this matter was decided upon during a meeting that specifically excluded members of Indigenous organizations.[212] One of the Co-chairs of the discussions indicated in July 2010 that, only Parties but not the representatives of the Indigenous Peoples would be able to offer and approve wording and text.[213] Since the access and benefit sharing negotiations were held in English, even though Spanish is the most widely spoken language in Latin America and the Caribbean, the International Indigenous Forum on Biodiversity and the Indigenous Women's Network on Biodiversity from that region immediately ran into problems with getting the information properly translated, as there were no translation services offered.[214] The Indigenous Peoples had to struggle, going through massive resistance from Canada, even for mentioning UNDRIP in the preamble of the Protocol.[215] Thus, it is clearly seen that the International Indigenous Forum on Biodiversity battled valiantly over each comma and word to secure the rights of Indigenous Peoples in the Nagoya Protocol, achieving some results for the local communities and Indigenous Peoples out of these six years of arduous and demanding negotiations.

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[208] Ibid 165.
[209] Ibid 97.
[210] Committee on the Elimination of Racial Discrimination 80th Session 13 February - 9 March 2012 United Nations, Geneva, Response to Canada's 19th and 20th Periodic Reports: Alternative Report on Canada's Actions on the Nagoya Protocol 28.
[211] There will be a discussion about it later on in the thesis, p. 39.
[212] Committee on the Elimination of Racial Discrimination 80th Session 13 February - 9 March 2012 United Nations, Geneva, Response to Canada's 19th and 20th Periodic Reports: Alternative Report on Canada's Actions on the Nagoya Protocol 31.
[213] Expert Mechanism on the Rights of Indigenous Peoples, Fourth session, Geneva 11-15 July 2011, Agenda Item 4: Study on indigenous peoples and the right to participate in decision-making Nagoya Protocol on Access and Benefit Sharing: Substantive and Procedural Injustices relating to Indigenous Peoples' Human Rights 177.
[214] Teran, M. Y. (2016). The Nagoya Protocol and Indigenous Peoples.The International Indigenous Policy Journal, 7(2)
[215] Expert Mechanism on the Rights of Indigenous Peoples, Fourth session, Geneva 11-15 July 2011, Agenda Item 4: Study on Indigenous Peoples and the right to participate in decision-making Nagoya Protocol on Access and Benefit Sharing: Substantive and Procedural Injustices relating to Indigenous Peoples' Human Rights, 101.

Despite the abovementioned difficulties that Indigenous Peoples had to face, some achievements have been made in the course of the negotiations. The NP was the first international legal agreement reached after UNDRIP's adoption. Seven paragraphs of the Nagoya Protocol's preamble deal with Indigenous Peoples, local communities, and traditional knowledge. The necessity of FPIC and MAT as well as benefit sharing resulting from any use of Indigenous Peoples' and local communities' traditional knowledge, was mandated and the link between genetic resources and traditional knowledge was established. However, those accomplishments of Indigenous Peoples made during negotiations, so as the NP itself, as it would be discussed later might still undermine Indigenous Peoples' rights regarding the FPIC and benefit-sharing concerning the MGRs. It might also be the case, that some developed countries through the negotiation process just created an illusion of respect and acknowledgment of the Indigenous Peoples' rights considering some minor and irrelevant matters and undermining the whole purpose of NP by strategically letting into the text of the Protocol ambiguities of different sorts and deliberately creating the gaps in the procedural issues.[216]

III. The Nagoya Protocol: General overview

As mentioned earlier, the Nagoya Protocol was adopted to supplement the CBD's benefit-sharing provisions.[217] Although the CBD required Parties to facilitate access to their genetic resources and to fairly and equitably share benefits from their use with provider countries, it provided little guidance on how ABS, FPIC, and MAT should be carried out in practice. For this reason, the Nagoya Protocol was necessary.[218] In the development of a cogent framework to lessen ambiguity and promote uniformity for both consumers and producers of genetic resources and related traditional knowledge, the Nagoya Protocol, as a legally binding agreement, was a logical evolution.[219] As many observers claim the Protocol's eventual acceptance at the Nagoya summit was uncertain until the very last moment.[220]

There are 27 preambular paragraphs, 36 articles, and one appendix in the NP. The preamble begins by reiterating some of the CBD's preambular paragraphs, emphasizing the significance of ABS for conservation. The preamble also mentions some of the issues that the

[216] To be discussed later in the chapter
[217] See Nagoya Protocol, at 1.
[218] Mattias Ahr´en et al., An Explanatory Guide to the Nagoya Protocol on Access and Benefit-Sharing, 83 IUCN Env't Law & Pol'y Paper 14-20 (2012)
[219] Ibid at 14
[220] CBD, Working Group on Article 8(j), online: CBD <http://www.cbd.int/convention/wg8j.shtml>

CBD has faced in its implementation, emphasizing the significance of maintaining equity and fairness in MAT agreements between providers and users of genetic resources. The last seven paragraphs are all about TK, including Article 8(j) CBD, the necessity of TK for biological diversity conservation, the variety of conditions in which TK associated with genetic resources is possessed by IP, and their right to identify the legal holder of their TK. The preamble also mentions the UNDRIP, which could be seen as a positive additional sign of Indigenous Peoples' rights recognition.

The Nagoya Protocol strives to provide parties who offer and use genetic resources with stronger legal clarity, predictability, certainty, and accountability. To help achieve this aim, the Nagoya Protocol establishes a set of requirements to augment domestic law by identifying genetic resources and contractual obligations that must be specified in MAT.[221] In addition to the requirement to make agreements on MAT, with the Indigenous Peoples, the Protocol requires the holders of genetic resources to give their FPIC.[222] The Protocol keeps the CBD's free, prior, and informed consent procedure in place, incorporating the certificate of compliance.[223] Thus, the Nagoya Protocol addresses the link between benefit sharing for local communities and Indigenous Peoples and FPIC as a requirement for allowing access to genetic resources for the first time in a legally binding document.[224]

Benefits emerging from the use of genetic resources, benefits coming from genetic resources controlled by Indigenous Peoples, and benefits arising from the use of TK associated with genetic resources are distinguished in Article 5 NP (Fair and Equitable Benefit-Sharing).

Article 6 specifically states that to use genetic resources, each party must get prior informed consent from local communities and Indigenous Peoples "subject to domestic access and benefit sharing legislation or regulatory requirements... unless otherwise determined by that Party."[225] Article 6 also distinguishes between national consent and consent from local communities and Indigenous Peoples, with the purpose of obtaining permission from all groups with a right to the resources.[226] In comparison to prior implementation attempts, the Protocol is highly detailed in terms of procedural issues of access (Article 6.3 NP).[227] Article 7 further

[221] See Nagoya Protocol, at arts. 2(c), 15, 16, 18.
[222] See id. at arts. 5(2), 6(2).
[223] See id. at art 17.
[224] Kamau, Fedder & Winter, "The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What is New and what are the Implications for Provider and User Countries and the Scientific Community?".
[225] Nagoya Protocol, at art. 6(1).
[226] See id. at art. 6.
[227] Kamau, Fedder & Winter, "The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What is New and what are the Implications for Provider and User Countries and the Scientific Community?" at 250

extends the consent requirement to Indigenous Peoples' traditional knowledge, which encompasses a wide variety of topics such as the environment and resource utilization.[228]

According to some scholars, the Nagoya Protocol's new consent requirement provides a "community concept" that enables Indigenous Peoples to govern, manage and control resources and benefits and prevent projects from compromising their lands and resources.[229] Both Articles 6 and 7 of the Nagoya Protocol require the country providing genetic resources to take steps to ensure that Indigenous Peoples' prior informed consent, approval, and engagement are obtained, and this has a significant impact on Indigenous communities' relationships with private companies. These efforts should be "appropriate, effective, and proportionate," according to Articles 15 and 16.[230]

Article 12 also requires that countries must communicate and interact with Indigenous Peoples to share traditional knowledge with prospective genetic resource consumers.[231] Article 6.3(e) requires each Party to arrange for the issuing of a permit or its equivalent as proof of the decision to grant FPIC and the establishment of MAT at the moment of access, as well as to inform the ABS Clearing-House provided under Article 14. Article 18 of the NP makes it plain that MAT enforcement, and hence benefit-sharing should be done through contract enforcement procedures.[232]

As some scholars argue, benefit-sharing obligations being enforced by contractual procedures might constitute certain problems. They state that user states do not have any explicit duty to guarantee benefit sharing and that some challenges arise out of benefit sharing obligations being enforced by the contractual procedures (forum, litigation costs, prosecution of titles). The mentioned nuances could put a provider side into a disadvantaged position.[233]

Additionally, Article 12 NP (TK Associated with Genetic Resources) should be highlighted in relation to the Indigenous Peoples. According to the Article, Parties must: Consider the customary laws, Indigenous Peoples' practices, and procedures with regard to TK associated with genetic resources; Create a system for educating future genetic resource users about their duties while using traditional knowledge; Support the creation by Indigenous Peoples of (a) Community protocols relating to ABS in TK, (b) Minimum standards for MAT, and (c) Model contractual clauses for benefit-sharing; and Do not restrict the customary use

[228] See id. at art. 7.
[229] MORGERA ET AL., at 148.
[230] Nagoya Protocol, at arts. 15, 16.
[231] Nagoya Protocol, at art. 12
[232]Kamau, Fedder & Winter, "The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What is New and what are
the Implications for Provider and User Countries and the Scientific Community?" at 252.
[233] ibid., at 257.

and exchange of genetic resources and associated TK within and among Indigenous Peoples in their implementation of the Protocol.[234]

The following sections will discuss the rights of Indigenous Peoples relating to ABS under the NP in more detail.

3.3. Rights of Indigenous Peoples relating to ABS of MRGs and Use of TK under the NP

In general terms, the NP recognizes two broad sets of rights of Indigenous Peoples, namely the right to give access to and sharing the benefit derived from MGRs, and the right to give access to TK and benefit sharing for using that knowledge. This section explores these core rights in detail.

3.3.1 Indigenous Peoples' rights to give access to and benefit sharing of the MGRs

Genetic resources were thought to be freely accessible before the CBD, and users were not required to share advantages with the countries that provided the resources.[235] The Preamble and Articles 3 and 15(1) of the CBD altered this perspective by reaffirming that these resources fell under the territorial sovereignty of the countries where they were discovered. The CBD further stipulated that, unless that Party determined otherwise (Article 15(5)), access to genetic resources was subject to the prior informed consent (PIC) of the Party supplying those resources as well as to mutually agreed terms (MAT) (Article 15(4)). Users of genetic resources are required to share benefits with providers in exchange for access (Article 15.7). Therefore, genetic resources covered by the CBD cannot be seen as being openly available. The CBD thus became the first international instrument that acknowledges the sovereign rights of States over the genetic resources within their jurisdictions and clarifies the link between sovereign rights and access to genetic resources and established the principle of benefit-sharing.[236]

I. Article 6(2) of the NP: in-depth review

Article 6(2) of the Nagoya Protocol governs access to genetic resources over which Indigenous Peoples have rights. That is a novel concept in the international law of ABS. According to

[234] Nagoya protocol Art. 12

[235] FNI (Fridtjof Nansen Institute). 2010. The Concept of "Genetic Resources" in the Convention on Biological Diversity and How It Relates to a Functional International Regime on Access and Benefit Sharing. Lysaker, Norway

[236] Glowka, L., F. Burhenne-Guilmin, and H. Synge. 1994. A Guide to the Convention on Biological Diversity, IUCN Environmental Policy and Law Paper No. 30. Gland, Switzerland; Cambridge, U.K.; and Bonn, Germany: International Union for Conservation of Nature.

Article 8(j) of the CBD, States must (only) promote the wider application of traditional knowledge with the approval and involvement of the holders of such knowledge and encourage the equitable sharing of benefits resulting from its utilization, insofar as this is possible and appropriate. On the other hand, the Nagoya Protocol recognizes that the Indigenous Peoples may have the authority to offer access to genetic resources as such, that is, genetic resources without traditional knowledge associated with them, as well as to traditional knowledge associated with genetic resources. It also establishes a requirement for prior informed consent (PIC) or approval from the Indigenous Peoples in order to access such resources. Additionally, it outlines a Party's responsibility in securing PIC or approval and involvement of Indigenous Peoples. Prior informed consent or approval, as well as the participation of Indigenous Peoples where they have the established right to allow access to genetic resources, must be acquired. It is crucial to note that each Party has a mandatory responsibility to follow these steps as the word "shall" is used to express this.[237] Article 6(3)(f) of the Protocol further stipulates the requirements and procedures for gaining PIC as well as the participation of Indigenous and local communities in giving access to genetic resources that they possess. In other words, where Idigenous and local communities have established rights to give access to their genetic resources, Parties are required to inform potential users of genetic resources on how to apply for Indigenous Peoples' PIC.[238] The requirement of FPIC is also a core principle under international human rights law, as discussed in chapter 2.

However, the responsibility must be carried out "In conformity with local law," a phrase that appears frequently in the Nagoya Protocol in relation to Indigenous Peoples (see also Articles 5(2), 7, and 12(1)). This might suggest that each Party is free to choose the actions it wants to take. It could also imply that each Party is free to act in accordance with what its domestic legislation allows or mandates.[239] In this regard, scholars observe that Article 6(2) restricts the State's role in executing Indigenous Peoples' rights over genetic resources to one of facilitation rather than determination. According to Bavikatte and Robinson,[240] this strategy has been deemed to be less supportive of community rights.

In any event, there is no prescription in paragraph 2 about the nature of the actions the Parties must take. It simply states that "Each Party shall take actions, as appropriate".

[237] Buck, M., and C. Hamilton. 2011. The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity. Review of European Community and International Environmental Law 20(1): 47 – 61

[238] Elisa Morgera, Elsa Tsioumani and Matthias Buck, Unraveling the Nagoya Protocol, p 168, Published by: Brill

[239] Ibid

[240] Bavikatte, K., and D. F. Robinson. 2011, p.47. Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing. Law, Environment and Development Journal 7(1): 35 – 51.

Therefore, such actions might be any additional actions the Party considers suitable to carry out its commitment under Article 6 in addition to legislative, administrative, or policy measures. Therefore, the goal is the main emphasis rather than the type of activities and measures to be undertaken. In other words, each Party should have a specific goal in mind when taking such action, which is to make sure that the PIC or engagement of Indigenous Peoples is gained for access to genetic resources. This demonstrates that what counts is whether such procedures are successful in ensuring that PIC or permission and the engagement of Indigenous Peoples are gained, not the type of measure that is taken.[241]

In this regard, it is significant to observe that Article 6(2) of the Nagoya Protocol could be interpreted in two ways. It may be interpreted as it offers the choice between PIC and approval and involvement, implying that a Party's efforts may be intended to ensure that either is acquired. However, it is not often apparent what "approval and involvement" mean or encompass, or how they differ from PIC.[242] This position was used by the Canadian government, by adding extra commas around the phrase “approval and involvement” in order to separate it from PIC and thus suggesting that only the “involvement” of Indigenous Peoples rather than obtaining FPIC is sufficient.[243] The other way of interpreting it would be the position of the Committee on the Elimination of Racial Discrimination[244]. According to their point of view, the involvement of Indigenous Peoples is required in addition to consent and approval because the “or” between PIC and “approval” suggests that the two terms are synonymous. They reinforce their position by reference to article 6(3)(f) of the Protocol and appealing to the norms of international law, namely UNDRIP.[245] This position that the right of Indigenous Peoples regarding FPIC cannot be undermined by “consultation” is also highly supported by the participants of the Permanent Forum on Indigenous Issues.[246] It seems that the latter position of the Indigenous Peoples’ representatives is more solid than the argumentation with adding extra commas. In this regard, the UN Special Rapporteur on Indigenous Peoples' Rights has urged those relevant international environmental accords to be

[241] Kamau, E. C., B. Fedder, and G. Winter. 2010. The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What Is New and What Are the Implications for Provider and User Countries and the Scientific Community? Law, Environment and Development Journal 6(3): 246 – 62.
[242] Ibid
[243]Government of Canada, "Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising from their Utilization to the Convention on Biological Diversity: Discussion Document", September 2011, at 24 (Appendix 1: Overview of the Current Engagement Process).
[244] Committee on the Elimination of Racial Discrimination 80th Session 13 February - 9 March 2012 United Nations, Geneva Response to Canada's 19th and 20th Periodic Reports: Alternative Report on Canada's Actions on the Nagoya Protocol
[245] Ibid par.69
[246]Permanent Forum on Indigenous Issues, Report on the tenth session (16 – 27 May 2011), Economic and Social Council, Official Records, Supplement No. 23, United Nations, New York, E/2011/43-E/C.19/2011/14, para. 36

interpreted and put into effect in a manner that is compatible with UNDRIP, whether or not the particular wording of these instruments perfectly reflects the principles of the Declaration.[247]

The Nagoya protocol imposes additional procedural duties on State parties. In particular, the minimal procedural conditions outlined in Article 6(3)(c-f) must be present in the domestic access regimes of Parties requesting PIC. First and foremost, Parties must outline in domestic access measures how to apply for PIC.[248] This includes specifying which national authorities have the authority to award PIC, what prerequisites must be met (such as information on the structure and substance of the application), and what processes must be followed.[249]

Generally, the right of Indigenous Peoples to control access to genetic resources in cases where they have the "established right" to do so is a novel scenario that was not included in access legislation prior to the Nagoya Protocol.[250] The following section will shed some light on the "established rights" issue showing how the ambiguity in international law could be used by some States to undermine Indigenous Peoples' rights.

II. The notion of "established rights": Undermining Indigenous Peoples' rights

The Bonn Guidelines' Paragraph 31,[251] which first acknowledged the established rights of Indigenous Peoples associated with genetic resources, served as the foundation for Article 6(2) of the Nagoya Protocol. According to Article 6(2), benefit-sharing from the use of genetic resources held by Indigenous and local communities is to occur "in accordance with domestic legislation regarding the *established rights of Indigenous* and local communities" over these genetic resources.[252] The statement, it may be argued, highlights concern that benefit-sharing should come after domestic legislation recognizesIindigenous and local populations' rights to certain genetic resources.[253] These concerns are highlighted by the Indigenous Peoples representatives that contended that, according to the Protocol, domestic law appears to provide some protection for only "established" rights and not for other genetic resource rights based on

[247] UN General Assembly, "Report of the Special Rapporteur on Indigenous Peoples' rights," A/67/301, par. 92, 61.
[248] Nagoya Protocol Article 6(3)(c).
[249] Greiber, Thomas, Sonia Pena Moreno, Mattias Ahrén, Jimena Nieto Carrasco, Evanson C. Kamau, Jorge Cabrera Medaglia, Maria Julia Oliva, Frederic Perron-Welch, Natasha Ali and China Williams. An Explanatory Guide to the Nagoya Protocol on Access and Benefit-Sharing. Gland: IUCN, 2012., p. 104.
[250] Glowka, L., F. Burhenne-Guilmin, and H. Synge. 1994. A Guide to the Convention on Biological Diversity, IUCN Environmental Policy and Law Paper No. 30. Gland, Switzerland; Cambridge, U.K.; and Bonn, Germany: International Union for Conservation of Nature.
[251] 2002. Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization. Montreal
[252] NP 5(2), 6(2)
[253] Greiber et al., Explanatory Guide, op. cit., 87

customary usage. Thus, it may happen that third parties may access and utilize genetic resources in the marine areas of Indigenous Peoples and local communities without their free, prior, and informed consent.[254] The Indigenous Peoples' representatives also argue that the term "established rights" may only be applied by the States where Indigenous Peoples can show that their claim to genetic resources is recognized by domestic law, an agreement, or a court decision. No matter how solid the proof that such rights exist, the Nagoya Protocol does not seem to offer any protection if such rights cannot be adequately confirmed.[255] They further argued that most Indigenous Peoples worldwide might lose access to genetic resources if the term "established" is defined and used in such a limited way.[256]

Those concerns are founded on the actual positions of some States regarding this term and the potential domestic implementation of the NP. For instance, the Canadian government confirms that "established" rights can only be recognized in relation to Indigenous Peoples who have "comprehensive land-claim and self-government agreements which give them authority to manage their lands".[257] It is obvious that such a strategy is at odds with the obligations placed on States by the United Nations Charter, the CBD, and international human rights law. In violation of the principles of equality and non-discrimination, it can deny Indigenous peoples' rights to self-determination, culture, and resources.[258] This notion of "established" rights is also incompatible with article 10(c) of the CBD, which requires States to "as far as feasible" safeguard and promote the use of genetic resources "in line with existing cultural practices."[259]

These are not rootless concerns, as some other "developed" countries (Finland, Norway, Sweden, Japan, France, China) do not explicitly recognize the rights of Indigenous Peoples over genetic resources saying that: "indigenous and local communities do not have the established rights to grant access to genetic resources according to their domestic law".[260] They follow the principle of sovereign rights of the State (as they claim) over the genetic resources and thus they interpret the term "established rights" in a manner that could deny the Indigenous Peoples' rights to genetic resources.

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[254] Committee on the Elimination of Racial Discrimination 80th Session 13 February - 9 March 2012 United Nations, Geneva Response to Canada's 19th and 20th Periodic Reports: Alternative Report on Canada's Actions on the *Nagoya Protocol, par. 17.*, "Nagoya Protocol on access and benefit sharing: Substantive and procedural injustices relating to Indigenous Peoples' human rights. Joint submission Grand Council of the Crees (Eeyou Istchee) et al. to the ICNP," par. 68-75.
[255] Ibid 19.
[256] Ibid 20.
[257] Government of Canada, "Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising from their Utilization to the Convention on Biological Diversity: Discussion Document", September 2011, at 24 (Appendix 1: Overview of the Current Engagement Process.
[258] Committee on the Elimination of Racial Discrimination 80th Session 13 February - 9 March 2012 United Nations, Geneva Response to Canada's 19th and 20th Periodic Reports: Alternative Report on Canada's Actions on the *Nagoya Protocol, par. 21.*
[259] Ibid 18.
[260] Interim national reports on the implementation of the Nagoya protocol are available at https://absch.cbd.int/en/countries.

However, despite not being acknowledged by national legal systems, Indigenous Peoples are still believed to have rights to natural resources, according to international human rights bodies.[261] Thus, two major approaches to interpreting "established rights" could be distinguished. First, the phrase "established rights" may only be used when a specific community can show that its legal, contractual, or judicial rights to genetic resources have previously been established. Communities will have to demonstrate and prove their legitimacy as the legitimate "owners" or "authorities" in respect to the protection of that genetic resource so that it is "in line with domestic law" if the term "established right" is used. Thus, according to this approach, if such rights are not already established within the national legal system,[262] the requirement of Article 6(2) to seek FPIC or the involvement of Indigenous Peoples would not be triggered. In other words, if Indigenous Peoples do not have that right, a Party is not required to take any steps to ensure that their FPIC, approval, or involvement is secured.[263] This approach is followed by Finland, Norway, Sweden, Japan, France, and China.[264]

Second, according to international human rights case law,[265] the phrase "established rights" can also be understood to include pertinent internationally recognized human rights of Indigenous and local groups to the lands, marine areas, and natural resources they have traditionally used.[266] It should be noted that some national legislations of the "Global South" countries (Egypt, South Africa, Pakistan, Angola, Mexico)[267], follow this other approach towards recognizing the rights of Indigenous Peoples over their territory and the resources thereon. In this case, a Party is required to take the necessary steps in accordance with national legislation to ensure that the FPIC or involvement and approval of the Indigenous Peoples are sought before access to such resources is granted. However, the NP makes no mention of the need for Parties to provide nationally recognized rights for Indigenous Peoples where they do not already exist.[268]

[261] Human Rights Council, "Report of the Special Rapporteur of Indigenous Peoples' rights," A/HRC/24/41, paragraphs 9, 12 and 35, Case of the Mayagna (Sumo) Awas Tingni Community v Nicaragua, Merits, Reparations and Costs, Judgement, Case No. 11,577 (IACtHR, 31 August 2001)
[262] "Joint submission Grand Council of the Crees (Eeyou Istchee) et al.," 12.
[263] Koutouki, K. 2011. The Nagoya Protocol: Status of Indigenous and Local Communities. Legal Aspects of Sustainable Natural Resources Legal Working Paper Series. Rome and Montreal: International Development Law Organization and Centre for International Sustainable Development Law.
[264] Interim national reports on the implementation of the Nagoya protocol are available at https://absch.cbd.int/en/countries
[265] Saramaka People v. Suriname (Preliminary Objections, Merits, Reparations and Costs), IACtHR, Case No.172 [2007], para.118.
[266] Lenzerini, "Indigenous Peoples' Cultural Rights," op. cit., 139–140;
[267] Interim national reports on the implementation of the Nagoya protocol are available at https://absch.cbd.int/en/countries
[268] Koutouki, K. 2011. The Nagoya Protocol: Status of Indigenous and Local Communities. Legal Aspects of Sustainable Natural Resources Legal Working Paper Series. Rome and Montreal: International Development Law Organization and Centre for International Sustainable Development Law.

Thus, it should be emphasized that the phrase "established right" is used without qualification, leaving it up to States to decide whether these rights are enshrined in national or international law. This is what is referred to as a "strategic ambiguity" in negotiation lingo. It is a cunning quiet that allows the possibility for different interpretations and jurisprudential developments.[269] And as practice shows, States are actively using this “interpretational” possibility, and not always in favor of Indigenous Peoples.

3.3.2 IP’s rights to give access to TK associated with MGRs and benefit sharing

Due to the interdependence of genetic resources and traditional knowledge for indigenous and local communities, it is recognized that the traditional use and exchange of genetic resources are crucial for the preservation and ongoing evolution of traditional knowledge as well as for its function in maintaining the cultural identity of communities. Thus, the Nagoya protocol provides guarantees on how to access TK and the benefits arising from its use. Defining the notion of TK, this section explores this issue.

I. Traditional knowledge: an overview of the concept

Before moving on to the discussion of the CBD’s and NP’s provisions on ABS related to Indigenous Peoples, the concept of traditional knowledge (TK) should be briefly discussed here. Indigenous Peoples have expertise in a wide range of fields, including categorization systems, land use patterns, sustainable management of natural resources, healthcare practices, and the therapeutic characteristics of local species.[270] Due to the concerns and worries of Indigenous Peoples as to the potential appropriation by commercial users of this information, requests have been made for both the conservation of indigenous or traditional knowledge (TK) and the equitable distribution of the gains from its usage.[271] It is crucial to understand the intricacy of the discussion, the nature of traditional knowledge, and the interests of Indigenous Peoples in TK. The absence of a single definition for TK in international discussions should be noted. Occasionally, the phrase is used to describe Indigenous knowledge systems, inventions, customary rules, or traditions.[272]

[269] Kabir Bavikatte & Daniel F. Robinson, Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing, 7 LAW ENV't & DEV. J. 35 (2011)
[270] Kerry ten Kate & Sarah A. Laird, The Commercial Use of Biodiversity: Access to Genetic Resources and Benefit Sharing (London, UK: Earthscan, 1999).
[271] Tania Bubela and E. Richard Gold - Indigenous rights and traditional knowledge, 9781781002629
[272] ‘Article 8(j): Traditional Knowledge and Biological Diversity’, available at http://www.cbd.int/doc/meetings/cop/cop09/media/cop9-press-kit-tk-en.pdf, John Mugabe, ‘Intellectual Property Protection

Traditional knowledge (TK) differs from Western types of knowledge in that it is typically locally specific, held collectively by members of a culture, and transmitted orally.[273] Due to its complexity and vastness, it is difficult to develop practical mechanisms and procedures to protect TK against misuse or abuse.[274]

For knowledge to be considered traditional, the concepts of "traditional," "local," and "held by a community" must be connected. [275] Based on genetic and biological resources, TK is a component of the regional and cultural identities of indigenous and local groups.[276] Thus, TK may be generally defined as knowledge that is created, maintained, and passed down through generations in a traditional context; it is distinctively linked to the traditional or indigenous culture or community that does this; it is connected to a local or Indigenous community through a sense of custodianship, guardianship, or cultural responsibility; and it is "knowledge" in the sense that it results from intellectual activity across a variety of fields.[277]

However, as it was noted above the lack of legal definition for TK may create some nuances in the practical aspect of dealing with this concept.

Having highlighted the notion of TK, I now turn to the issue of giving access to TK and benefit sharing. The Nagoya Protocol's fundamental clauses on access to traditional knowledge associated with genetic resources and benefit sharing resulting from its use are Articles 7, 12, and 5.5. It is necessary to keep in mind that these fundamental clauses greatly broaden the CBD's access and benefit-sharing (ABS) and traditional knowledge clauses.[278] Since States are assumed to have sovereign rights over genetic resources under the CBD, it was anticipated that the Nagoya Protocol will concentrate on ABS obligations regarding genetic resources, even though the Protocol also acknowledges that entities other than States might be holders of genetic resources. The situation is a little different when it comes to traditional knowledge associated with genetic resources. The CBD does not explicitly provide that Parties have rights to traditional knowledge associated with genetic resources, but it does not rule out the

and Traditional Knowledge: An Exploration in International Policy Discourse' WIPO (December 1998) at 5, available at http://www.wipo.int/tk/en/hr/paneldiscussion/papers/pdf/mugabe.pdf

[273]Janis Geary, Cynthia G. Jardine, Jenilee Guebert & Tania Bubela (2013) Access and benefits sharing of genetic resources and associated traditional knowledge in northern Canada: understanding the legal environment and creating effective research agreements, International Journal of Circumpolar Health, 72:1

[274]Janis Geary, Cynthia G. Jardine, Jenilee Guebert & Tania Bubela (2013) Access and benefits sharing of genetic resources and associated traditional knowledge in northern Canada: understanding the legal environment and creating effective research agreements, International Journal of Circumpolar Health, 72:1

[275] Russel Lawrence Barsh, 'Indigenous Property Rights and Innovation' in Darrell A Posey, ed., Cultural and Spiritual Values of Biodiversity, (London, UK: Intermediate Technology Publications and UNEP, 1999) at 73.

[276] Alois Leidwein Protection of Traditional Knowledge Associated with Biological and Genetic Resources. General Legal Issues and Measures Already Taken by the European Union and its Member States in the Field of Agriculture and Food Production The Journal of World Intellectual Property (2006) Vol. 9, no. 3, pp. 251–275

[277] WIPO/GRTKF/IC/5/12 (paragraph 45).

[278] Nijar, G. S. 2011a. The Nagoya Protocol on Access and Benefit Sharing of Genetic Resources: An Analysis. CEBLAW Brief. Kuala Lumpur, Malaysia: Centre of Excellence for Biodiversity Law.

possibility that they do. The phrase "knowledge, inventions and practices of indigenous and local communities" in Article 8(j) of the CBD, however, seems to imply that Indigenous Peoples typically hold the rights to traditional knowledge associated with genetic resources.[279]

Articles 7 and 5(5) of the Nagoya protocol clarifies and expands those provisions of the CBD. While Article 7 deals with how access to TK could be given, Article 5(5) focuses on the sharing of benefits derived from using TK.

II. In-depth examination of Articles 7 and 5(5) of the Nagoya Protocol

According to Article 7, States must take steps to guarantee that traditional knowledge associated with genetic resources held by Indigenous Peoples is accessible with their PIC or approval and involvement and that mutually agreed terms (MAT) have been established. Different limitations or qualifications apply to the Parties' obligations under Article 7. It could be said that this is not the same thing as arguing that traditional knowledge must always be accessible in conjunction with a genetic resource. It is more likely that in certain cases, a potential user would be more interested in the traditional knowledge itself than in the genetic resource that goes along with it.[280] In such circumstances, Article 7 of the Nagoya Protocol applies. In other words, Parties must take an effort to guarantee that FPIC or involvement and approval criteria are met even though the State is not a party to the transaction since no genetic resources are being utilized.[281] So, in accordance with Article 7 of the Nagoya Protocol, Indigenous Peoples have the right to decide who has access to traditional knowledge associated with the genetic resources they hold. As Greiber points out, the State parties are free to choose between methods that will guarantee that access is based either on FPIC or on "approval and involvement" when putting the provision into practice.[282] Although, it could be noted that this point of view is rather debatable and one that is in favor of the states than of Indigenous Peoples' interests. In short, Article 7 mandates Parties, if necessary, to implement steps (via domestic legislation) seeking to guarantee that Indigenous Peoples can consent or approve before traditional knowledge associated with genetic resources held by them is accessed.

[279] Bavikatte, K., and D. F. Robinson. 2011. Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing. Law, Environment and Development Journal 7(1): 35 – 51.
[280] Ibid.
[281] Thomas Greiber, Sonia Peña Moreno, Mattias Åhrén, Jimena Nieto Carrasco, Evanson Chege Kamau, Jorge Cabrera Medaglia, Maria Julia Oliva and Frederic Perron-Welch in cooperation with Natasha Ali and China Williams, An Explanatory Guide to the Nagoya Protocol on Access and Benefit-sharing, IUCN Environmental Policy and Law Paper No. 83
[282] Buck, M., and C. Hamilton. 2011, p.55, The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity. Review of European Community and International Environmental Law 20(1): 47 – 61.

The phrases "[i]n accordance with domestic law" and "as appropriate," along with the excluding phrase "aim of ensuring," do provide States some latitude in deciding what actions to take and when to take them in order to implement Article 7 of the Nagoya Protocol. First off, the phrase "as appropriate" suggests that states are not generally required to take action and only do so when necessary and a need has been discovered. The phrases "as appropriate" and "[i]n accordance with domestic law" further emphasize that the State is free to choose the kind of actions that will best meet the stated need. Article 7, States "shall" take some measures.

Therefore, the requirement is obligatory. It's also significant to remember that Article 7 has no restrictions on the length of protection of TK.[283] As a result, regardless of when the traditional knowledge was created or how long it has been made publicly accessible, it is subject to the access restrictions outlined in Article 7 of the Nagoya Protocol. It should be underlined that the conditions in the provision permit Parties to adopt actions that are appropriate for their national circumstances and regulatory traditions, but they do not support a Party's option to decide not to take any action at all to control access to traditional knowledge. This conclusion is backed by the fact that Article 7 does not contain the phrase "unless otherwise determined by that Party," which is present in Article 6 and permits States to not demand PIC to grant access to their genetic resources.[284] Therefore, it might be claimed that a State is still compelled to create the mechanisms necessary for users to receive the FPIC of Indigenous Peoples for access to traditional knowledge associated with such resources, even if it chooses to avoid requiring it for access to genetic resources or some categories of them.[285]

Finally, it should be recognized that, given the many and distinctive conditions in which Indigenous and local communities possess or hold traditional knowledge, Article 7's inherent flexibility can also be advantageous to them.[286] Since Indigenous and local groups may have conceptual relationships to the land that do not align with statutory conceptions of property and usage, it is inevitable that a diversity of legal solutions will be required to implement Article 7 in various countries in a way that is both successful and culturally appropriate.[287]

Once access is granted in conformity with Article 7, then the issue of sharing the benefits of using TK will arise. In this regard, Article 5(5) requires State parties to ensure benefit-sharing with Indigenous Peoples through mutually agreed terms (MAT) when they

[283] ibid
[284] Elisa Morgera, Elsa Tsioumani, and Matthias Buck, Unraveling the Nagoya Protocol, A Commentary on the Nagoya Protocol on Access and Benefit-sharing to the Convention on Biological Diversity, p. 177 Published by: Brill.
[285] Ibid
[286] Nagoya Protocol 23rd and 25th preambular recitals.
[287] Elisa Morgera, Elsa Tsioumani, and Matthias Buck, Unraveling the Nagoya Protocol, A Commentary on the Nagoya Protocol on Access and Benefit-sharing to the Convention on Biological Diversity, p. 177 Published by: Brill.

employ traditional knowledge connected to genetic resources they own. Thus, it may be said that the Protocol's Article 5(5) appears to apply only to traditional knowledge that can be associated with one or more specific Indigenous Peoples' communities.[288] State Parties are required under Article 5.5 to take action to ensure that benefits accruing from the utilization of traditional knowledge associated with genetic resources are shared with the appropriate Indigenous Peoples and local communities. While the CBD's Article 8(j) merely obliged Parties to "encourage" the fair sharing of the benefits resulting from the utilization of traditional knowledge associated with genetic resources, according to their national laws, Article 5(5) of the NP strengthens the need for benefit-sharing in relation to traditional knowledge associated with genetic resources.

The other important requirement both in granting access to TK and in sharing the benefit is the establishment of mutually agreed terms (MAT). In addition to articles 7 and 5(5), this requirement is provided under article 6(3) in more detail. The last part of Article 6(3)(g) specifies the minimal parameters for creating MAT, which must be met by domestic access measures; as a result, Parties are required to provide at least some "clear" guidelines and norms for mandating and establishing MAT.[289] This clause is crucial since it not only stipulates that MAT must be created in writing but also offers one of the Protocol's few sources of substantive instruction on how to do so.[290] Written terms protect the parties from abrupt changes in conditions by either party or baseless claims, which increases clarity and transparency.[291] The terms on benefit sharing might provide clarification about the kind of benefits to be shared, including monetary and/or non-monetary, percentage- or fixed-amount shares, as well as royalties or milestone payments.[292] Having said that, Article 6(3)(g) simply outlines a set of minimum standards for the MAT content in a non-exhaustive and non-prescriptive manner.[293]

Therefore, it is up to the parties to decide the content of the MAT in their domestic ABS frameworks.

Generally, Articles 5(5) and 7 recognize Indigenous Peoples as owners (holders) of traditional knowledge associated with genetic resources and, as a result, they are appropriate

[288] Thomas Greiber, Sonia Peña Moreno, Mattias Åhrén, Jimena Nieto Carrasco, Evanson Chege Kamau, Jorge Cabrera Medaglia, Maria Julia Oliva and Frederic Perron-Welch in cooperation with Natasha Ali and China Williams, An Explanatory Guide to the Nagoya Protocol on Access and Benefit-sharing, IUCN Environmental Policy and Law Paper No. 83
[289] Nagoya Protocol Article 6(3)(g).
[290] Nagoya Protocol, Article 18(1), Article 17(1)(b)
[291] 6(2) g Subparagraph (d)
[292] NP 6(2)ii)
[293] Greiber et al., Explanatory Guide, 106.

groups for granting access to their knowledge as well as recipients of the benefits derived from there, which would be established by mutual agreements.[294]

3.3.3. General obligation of states in implementing IP's rights relating to ABS: Review of Article 12 of the Nagoya Protocol

A general clause pertaining to the rights of indigenous and local communities, which is applicable in the implementation of all other obligations under the Protocol, is enshrined in Article 12. It also contains two broadly framed obligations for Parties to support understanding and fairness in ABS transactions involving traditional knowledge, as well as a prohibition on Parties limiting communities' customary use and exchange of genetic resources, that are in accordance with the CBD.[295] It is also possible to claim that Article 12(1) also applies to the Protocol's provisions on genetic resources held by Indigenous and local communities due to the link between genetic resources and traditional knowledge.[296]

Parties must take into account the customary laws, community protocols, and procedures of indigenous and local communities, according to Article 12(1) of the Nagoya Protocol. Customary laws are unwritten rules that have developed over generations by Indigenous Peoples as a result of ongoing adaptation to social and environmental changes.[297] Broadly speaking, community protocols can be described as written documents that have been adopted by a community that holds traditional knowledge and in which the community internally codifies the criteria under which it will agree to allow access to its traditional knowledge associated with genetic resources.[298] It is thought that the act of creating a community protocol itself has value: it may serve to unite the entire community and provide a chance to jointly map and assess customary laws, governance structures, traditional resource usage, and community development strategies.[299] It may also result in the creation of internal community regulations for the equitable distribution of benefits and the management of natural resources sustainably and conflict solving.[300]

[294] Ibid
[295] Ibid p. 217.
[296] Nagoya Protocol Articles 5(2) and 6(2).
[297] Bavikatte, K., and H. Jonas. 2009. Bio-cultural Community Protocols: A Community Approach to Ensuring the Integrity of Environmental Law and Policy. Nairobi: United Nations Environment Programme
[298] Ibid
[299] Bavikatte, Kabir and Harry Jonas, p.20, Bio-Cultural Community Protocols: A Community Approach to Ensuring the Integrity of Environmental Law and Policy. Nairobi: UNEP, 2009
[300] Ibid

Article 12(1) also states that Parties must take into consideration a range of Indigenous Peoples' governance mechanisms relating to traditional knowledge associated with genetic resources, including traditional ones like customary laws and more current ones like community protocols. The section makes it clear that it is up to the Party to decide how much it wants to take such governance systems into account by including many cautions, such as "in accordance with domestic law," "take into consideration," and "as applicable." [301]

According to Article 12(2), Parties must create methods to make potential users of traditional knowledge associated with genetic resources aware of their responsibilities. This must be done in collaboration with the Indigenous Peoples that are involved. The purpose of Article 12(2) is to make it easier for users to comply with domestic ABS obligations relating to traditional knowledge.[302] Parties shall go forward with the meaningful participation of the relevant Indigenous and local communities when enforcing this duty. This language should be interpreted in light of the principle of Indigenous Peoples' full and effective participation in decision-making,[303] which can be seen as a crucial component of their right to self-determination,[304] as well as a principle in the standards established by CBD Parties through Code of Ethical Conduct.[305] It is obligatory (or "shall establish") that each Party creates such procedures in collaboration with any relevant IP communities. Although, it does not go beyond informing potential users of traditional knowledge associated with genetic resources about their responsibilities under the Nagoya Protocol.[306]

According to Article 12(3) of the Nagoya Protocol, Parties must make an effort to assist Indigenous Peoples in creating a variety of tools that will make them better ready to manage access procedures with regard to traditional knowledge associated with genetic resources that they hold and to ensure that they receive a fair share of benefits when such knowledge is used. The tools mentioned may contain sample contract provisions, community protocols, and MAT minimum requirements.[307]

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[301] Thomas Greiber, Sonia Peña Moreno, Mattias Åhrén, Jimena Nieto Carrasco, Evanson Chege Kamau, Jorge Cabrera Medaglia, Maria Julia Oliva and Frederic Perron-Welch in cooperation with Natasha Ali and China Williams, An Explanatory Guide to the Nagoya Protocol on Access and Benefit-sharing, IUCN Environmental Policy and Law Paper No. 83

[302] Greiber, Thomas, Sonia Pena Moreno, Mattias Ahrén, Jimena Nieto Carrasco, Evanson C. Kamau, Jorge Cabrera Medaglia, Maria Julia Oliva, Frederic Perron-Welch, Natasha Ali and China Williams p.140. An Explanatory Guide to the Nagoya Protocol on Access and Benefit-Sharing. Gland: IUCN, 2012

[303] UNDRIP Article 19 and 32(2); ILO Convention No 169, Article 6(2).

[304] "Joint submission Grand Council of the Crees (Eeyou Istchee)," 25–26.

[305] Tkarihwaié:Ri Code, paragraph 30, Akwé: Kon Voluntary Guidelines, paragraphs 3(a) and 15.

[306] Ibid

[307] Oliva, Maria Julia. "The Implications of the Nagoya Protocol for the Ethical Sourcing of Biodiversity." In The 2010 Nagoya Protocol on Access and Benefit-Sharing in Perspective: Implications for International Law and Implementation Challenges, edited by Elisa Morgera, Matthias Buck and Elsa Tsioumani, 381. Leiden: Martinus Nijhoff, 2013

The phrase "as appropriate" qualifies the commitment to help indigenous and local populations in a best-effort manner. In this particular situation, this qualifier can be interpreted as "upon request from the relevant communities "where these tools are not already in existence,"[308] with the goal of preventing States from exerting undue control over communities' internal governance processes in relation to ABS[309] when they choose the methods to implement this provision. Greiber argues that a possible interpretation of "as appropriate" is that it alludes to the possibility that "not all communities may require or accept such support."[310] Practically speaking, national authorities would be well recommended to first ascertain whether local laws and norms on traditional knowledge associated with genetic resources exist and if so, facilitate their observance. If such procedures are lacking, they shall intervene on behalf of these communities in an assisting capacity only as a last alternative until such community mechanisms are in place.[311]

Community protocols are internal rules established by an IP that specify, for instance, when and under what conditions the IP will provide access to traditional knowledge associated with genetic resources claimed by the community. The substance of the minimum standards for mutually agreed terms (MAT) is probably identical. The two may differ in that community protocols more frequently, though not always, adopt a holistic approach, elaborate on the function of traditional knowledge within the community, etc., and so include information that is less frequently present in minimal criteria for MAT.[312] However, unless it is obliged by international agreements or by national law, adherence to community protocols remains optional.[313]

Overall, it seems that local and Indigenous communities can benefit from community protocols in two ways. They give local and indigenous communities a clear framework for outlining the kinds of benefits they would like to achieve to maintain their culture and way of life before they are compelled to apply for FPIC and get involved in the creation of MAT. So,

[308] Singh Nijar, "An Asian Developing Country's View on the Challenges of the Nagoya Protocol." In The 2010 Nagoya Protocol on Access and Benefit-Sharing in Perspective: Implications for International Law and Implementation Challenges, edited by Elisa Morgera, Matthias Buck and Elsa Tsioumani, 247. Leiden: Martinus Nijhoff, 2013.
[309] Greiber, Thomas, Sonia Pena Moreno, Mattias Ahrén, Jimena Nieto Carrasco, Evanson C. Kamau, Jorge Cabrera Medaglia, Maria Julia Oliva, Frederic Perron-Welch, Natasha Ali and China Williams. An Explanatory Guide to the Nagoya Protocol on Access and Benefit-Sharing. Gland: IUCN, 2012.
[310] Ibid 141
[311] Singh Nijar, "An Asian Developing Country's View on the Challenges of the Nagoya Protocol." In The 2010 Nagoya Protocol on Access and Benefit-Sharing in Perspective: Implications for International Law and Implementation Challenges, edited by Elisa Morgera, Matthias Buck and Elsa Tsioumani, 257. Leiden: Martinus Nijhoff, 2013.
[312] Buck, M., and C. Hamilton. 2011. The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity. Review of European Community and International Environmental Law 20(1): 47 – 61
[313] Morgera, Elisa and Elsa Tsioumani, p 157-158, "The Evolution of Benefit-Sharing: Linking Biodiversity and Communities' Livelihoods." Review of European Community and International Environmental Law 19 (2010): 150

rather than entering into such discussions haphazardly, the process leading to the formation of a community protocol enables a community to get ready in advance for negotiations with outside parties to an ABS agreement, helping to level the playing field for all parties.[314] A community protocol can also operate as a guide for outsiders (such as the State, a business, or a research institution) when they first engage with an indigenous or local community. An indigenous or local community may be able to identify any issues about the right to offer FPIC and the administration of future benefit-sharing by developing a community protocol, which would minimize internal conflicts.[315] In accordance with the standards set forth in customary, national, and international law, community protocols can therefore be seen as a tool to link the local and international legal instruments. This is done to mobilize communities to use international and national law to support the local manifestations of their right to self-determination.[316]

Therefore, Article 12(4) could be viewed as an expansion of the CBD's more general commitment to "guard and encourage customary use of biological resources in line with traditional cultural practices that are compatible with standards for conservation or sustainable use."[317]

3.3.4. Digital Sequence Information: A time bomb under the NP?

It should be noted specifically that the NP left unanswered issues like whether the term "genetic resources" referred to the resources' information as well as their physical form.[318] In other words, the query concerns whether the Nagoya Protocol applies to digital DNA, RNA, or amino acid sequences as opposed to the actual extracted genetic material. The significance of the issue is that neither genetic resources nor digital data are adequately defined in the NP.

Researchers may now sequence DNA, communicate this digital sequence information (DSI) through email or online gene banks, and then synthesize the sequence information back

[314] Tsioumani, Elsa. "Community Protocols: An Emerging Tool for Managing the Commons." Mataroa, 2013.
[315] Morgera, Elisa and Elsa Tsioumani, p 157-158, "The Evolution of Benefit-Sharing: Linking Biodiversity and Communities' Livelihoods." Review of European Community and International Environmental Law 19 (2010): 150
[316] Harry Jonas, Kabir Bavikatte and Holly Shrumm, "Community Protocols and Access and Benefit-Sharing," Asian Biotechnology and Development Review 12 (2010): 49, 62.
[317] Glowka, Lyle and Valérie Normand. "The Nagoya Protocol on Access and BenefitSharing: Innovations in International Environmental Law." In The 2010 Nagoya Protocol on Access and Benefit-Sharing in Perspective: Implications for International Law and Implementation Challenges, edited by Elisa Morgera, Matthias Buck and Elsa Tsioumani, 21. Leiden: Martinus Nijhoff, 2013
[318] Scott, D., 2015. Co-producing soft law and uncertain knowledge: biofuels and synthetic biology at the UN Convention on Biological Diversity. PhD dissertation. Rutgers University, New Brunswick, USA.

into actual DNA, thanks to lower prices and improved technical capabilities.[319] The "dematerialization of biology" may affect biodiversity management, socio-ecological interactions, and uneven access to and ownership of the technology. Questions about what this would entail for ABS governance started to be raised as new genetic methods and technologies transitioned from scientific excitement to commercial reality.[320]

Some countries, like Canada, claim that the Nagoya Protocol "is about the ABS of genetic material exclusively," and DSI does not fit under either Nagoya or the CBD.[321] On the contrary, the Namibian official representatives claim that "the usage of genetic sequence data is an example of a new and growing issue that cuts straight across the CBD and both protocols in a very basic sense" was repeated by a large number of self-identified "provider-country" delegations.[322] Moreover, nearly all of the COP13 negotiators acknowledged that DSI posed a danger to the present global ABS assembly.[323] Unaddressed DSI, according to some States, might completely undermine the Nagoya Protocol on ABS.[324] During the meeting held in 2020, the experts of the AD HOC technical expert group on DSI noted in their report that DSI on MGR may result in direct or indirect form from the utilization of GRs.[325]

Thus, it could be argued that DSI is not thought to be covered by the Nagoya Protocol since no decision has yet been taken in this regard and drafting history shows that the issues of tangibility of MGR have been discussed through the negotiating process and the decision was taken in favor of the “hard copy” of the genetic resources. This may lead to the rise of digital biopiracy - emerging scientific techniques that undermine the traditional systems for fair and equitable benefit-sharing.[326] Noting the strong disagreement that exists over whether DSI heralds the beginning of a new open source revolution in the engineering of life or a new wave of digital biopiracy, it becomes obvious, that high stakes exist and need continual attention at the intersections of the digital and the physical, biology and the economic, and capitalism and ontological complexity.[327]

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[319] Molly R. Bonda,, Deborah Scott, Digital biopiracy and the (dis)assembling of the Nagoya Protocol, Geoforum 117 (2020) 24-32

[320] Muller, M.R., 2018. Genetic Resources as Natural Information: Implications for the Convention on Biological Diversity and the Nagoya Protocol. Routledge, Abingdon (UK), Nijar, G.S., 2016. Law Speak: Safeguarding our genetic resources. The Sun Daily

[321] WGII COP13, Canada.

[322] COP13 WGII , Namibia.

[323] Ibid.

[324] Ibid.

[325] CBD/DSI/AHTEG/2020/1/7 20.03.2020 Report of the AD HOC technical expert group on digital sequence information on genetic resources p. 13, par. 29

[326] Hammond, E., 2013. Biopiracy watch: a compilation of some recent cases (2013). Third World Network: Penang (Malaysia).

[327] Bond, M.R. and Scott, D. Digital biopiracy and the (dis)assembling of the Nagoya Protocol Geoforum • December 2020

Thus, the solutions to the DSI issue will have profound effects on how genetic resources will be used in the future. Would it erode state sovereignty over MGR, who owns biobanks and databases, and ultimately who will profit from biodiversity are those questions that are yet to be resolved.[328] But for now, there is no exact answer to the question: Was the Nagoya Protocol flexible enough to incorporate these evolving norms, or was it more like "regulating VCR technology in the era of YouTube?"[329]

4. Conclusion

This chapter has shown that the issue of ABS in regard to Indigenous Peoples' rights is a rather complicated and controversial one. Although the CBD and NP provided States with the new authority to manage and profit from access to MGR, given the contentious nature of the relationship between States and Indigenous Peoples, it seems improbable that states would grant Indigenous People unrestricted access to claim their rights to the MGR. Despite the Protocol's focus on the need to protect biodiversity and its emphasis on the enormous economic worth of the natural world, it falls short, in terms of guaranteeing full protection for Indigenous Peoples' traditional knowledge and ownership of the genetic resources found in their lands. The detailed argumentation and unfolding of these ideas will be given in the following chapter.

Chapter 4: Conclusions

The Protocol is the result of a hard-reached compromise between all the CBD State Parties, and that is where most of the criticism voiced by or on behalf of Indigenous People originates.

From the skeptics' perspective, state sovereignty clearly outweighs Indigenous Peoples' rights throughout the Protocol. The text of the Protocol uses phrases like "in accordance with domestic law," "established rights," "as appropriate," "as relevant," and "with the objective of ensuring" whenever it refers to IP rights throughout the whole document, which first and foremost sets a double standard between IP rights and those of State parties. [330] References to customary rules are undercut because Parties must take them into consideration only in line with domestic law, particularly with regard to Article 12.1 NP.[331]

[328] Ibid
[329] Servick, K., 2016. Rise of digital DNA raises biopiracy fears. Science.
[330] NP Articles 6.2, 7, 11, and 16.1, Kamau, Fedder & Winter, "The Nagoya Protocol on Access to Genetic Resources and Benefit Sharing: What is New and what are the Implications for Provider and User Countries and the Scientific Community?" 6:3 Law, Environment and Development Journal at 262; Native Women of Quebec.
[331]Ibid 246.

When reading the Protocol's language, it is evident that access, benefit-sharing, and compliance are its main points. While “developing” nations underlined the need for a stronger mechanism to realize benefit-sharing and compliance, “developed” nations focused on facilitating access.[332] As per the NP and CBD's provisions, the coastal state has a lot of autonomy and discretion in deciding how to manage bioprospecting in accordance with national law.[333] It appears that the Protocol more accurately reflects the interests of user nations than those of developing countries. It is mostly because the Protocol was the product of hard compromise being adopted in exchange, and without such accommodations, it is likely that this would not have been achievable at all.

It is quite clear that, because of the language of the Protocol that is so vague, it is up to the coastal state to determine what is "fair" and "equitable" and for the Indigenous Peoples to attempt to prove this State’s position wrong in case their rights are infringed.[334]

“We need more than the rhetoric of justice. We need justice,” while expressing the plight of Indigenous Peoples.[335] It might be the case, that this phrase is well describing the current practical situation with the implementation of NP. Good policy is only a starting point; good practice is harder to accomplish, analysts imply.[336] And it is especially the case with the implementation of the NP procedure. For instance, in accordance with the Protocol, only 50 of the 97 States Parties have so far enacted domestic laws or policies pertaining to ABS. It remains to be seen how these domestic laws or policies will really be implemented and would they fully guarantee the Indigenous Peoples’ rights.[337] The results of a survey of indigenous organizations and the appropriate national authorities of CBD Parties show that the domestic ABS measures that are currently in place or that are being developed do not provide enough room, recognition, or respect for Indigenous communities' rights to be put into practice in a way that complies with the law's requirements for the PIC, MAT, and free access.[338]

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[332] Thomas Greiber, Sonia Peña Moreno, Mattias Åhrén, Jimena Nieto Carrasco, Evanson Chege Kamau, Jorge Cabrera Medaglia, Maria Julia Oliva and Frederic Perron-Welch in cooperation with Natasha Ali and China Williams An Explanatory Guide to the Nagoya Protocol on Access and Benefit-sharing IUCN Environmental Policy and Law Paper No. 83

[333] Elisa Morgera, Elsa Tsioumani and Matthias Buck, ’Unraveling the Nagoya Protocol – A Commentary on the Nagoya Protocol on Access and Benefit-Sharing to the Convention on Biological Diversity’, Brill Leiden, Boston (2015), at p 15 pp. 417.

[334] Ibid at p 132

[335] International Law and Human Rights: The Power and the Pity, Justice, Supreme Court of Canada. This speech was delivered as the McGill Law Journal Annual Lecture at the Faculty of Law, McGill University on 26 January 2010. Rosalie Silberman Abella 2010 (2010) 55 McGill L.J.

[336] Linda Siegele et al., Conservation and Human Rights, Who Says What? in Rights-based Approaches: Exploring Issues and Opportunities for Conservation 69, 47–76 (J. Campese et al. (eds.), Bogor, Indonesia: CIFOR and IUCN, 2009

[337] Chee Yoke Ling, Mixed Reactions on New Access and Benefit Sharing Treaty, Third World Network, 9 November 2010 (Sep. 20, 2018),

[338] Hasrat Arjjumend, Recognition of Indigenous Peoples in Access and Benefit Sharing (ABS) Legislation and Policies of the Parties to the Nagoya Protocol Doi: 10.21684/2412-2343-2018-5-3-86-113

It might be argued, that the drafting history of the Protocol itself also opens some logic and shows some "hidden" ideas and the broader strategy of its negotiators that challenges Indigenous Peoples' rights. The fact that Indigenous Peoples were not allowed to participate in the discussions on crucial matters, like during the discussion and final adoption of the approach of "established rights" which literally provided a pathway for global evictions and dispossessions of Indigenous Peoples; the fact that they could not put any other important ideas, concerning their interests into the final text of the Protocol even as to using the term Indigenous Peoples itself. The fact that Indigenous Peoples were left to be "satisficed" with just noting in the preamble of the NP the UNDRIP speaks for itself, as it is rather a neutral language that cannot be interpreted as either full approval or disapproval. It is rather an obvious conclusion because in another scenario, with the aim of inventing an international treaty that should serve the best interest of Indigenous Peoples, their involvement in it and expressed concerns and expectations would have been certainly considered. On the contrary, if one wants to exchange some glass beads for goods of exceptionally high value, he would not want a process of thorough professional discussion among all parties involved, moreover, he would not want to write down a "fair" contract having put all the concerns of the other party in its text either.

Thus, it could be argued that the drafting history of the NP is a clear sign of the intentions of the "Global North" States to promote and implement the following idea: "What is mine is mine, what is yours is also mine". The implementation of NP into national legislation in an attempt to convert Indigenous Peoples' inherent rights to TK and MGR into the rights that exist only in accordance with national laws; playing around with the "established rights" concept; not defining the crucial terms, like MGRs, Indigenous Peoples, "access to MGR", TK, along with the absence of the statistics reports on the Indigenous Peoples' gains and profits along the ABS process are those markers that show the potential of overall inefficiency of an international treaty from the real-life, practical implementational point of view.

There is also the DSI issue that is capable to undermine the whole idea of the Nagoya Protocol. As modern technologies use "soft", intangible copies of genetic material nowadays, it is not necessary to follow this rather long and costly process of ABS but simply to get the needed data digitally, through an e-mail, or via a data bank without Indigenous Peoples even knowing about it happening. And it should be noted that using DSI was not just a recent finding. As a matter of fact, it was a subject of discussion during the negotiating process, but some professional negotiators from the "developed" countries just made other parties involved, satisfied with the final version of the text's treaty without going into detailed scientifically founded, expertized argumentation, deliberately setting a serious gap and a backdoor into it.

This alleged strategic move of the "Global North" negotiators may just fully undermine and destroy the whole idea of ABS and Indigenous Peoples' rights in regard to MGR and TK associated with MGR, in some near future.

Thus, after analyzing international instruments in regard to the FPIC and fair and equitable benefit sharing among Indigenous Peoples, it would be safe enough to conclude that the rights of Indigenous Peoples concerning the MGRs are not well enough guaranteed and not fully covered by the existing international legal framework and that a human rights-based approach and respect to Indigenous Peoples' rights had not been fully incorporated in the Protocol. This tendency could easily lead to an objective reality, where Indigenous Peoples might expect to gain very little and lose a great deal concerning the potential benefits that come from commercial utilization of MGRs. Although, existing challenges of Indigenous Peoples' over MGR and TK associated with MGR could be addressed through national mechanisms for the involvement and participation of Indigenous Peoples in the factual, practical implementation of its provisions related to Indigenous Peoples and taking into consideration some specific national circumstances, with the State's support for coordination of development of community protocols and some minimum requirements for MAT.

The Protocol's omission to address the subject of Indigenous Peoples' TK's intellectual property rights is undoubtedly a source of concern. Despite the fact that the organization's mission does not involve the protection of TK, the majority of governments deferred the matter to World Intellectual Property Organization (WIPO).[339] The fundamental worry is that, if there is no recognition of a *sui generis* system of protection, the CBD and the NP would just intensify the pressure already placed on those who safeguard traditional knowledge by making such information commodifiable and subject to national law.[340]

With all real power to regulate the ABS regime in regard to Indigenous Peoples concentrated in the hands of the State's legislative system, there is no easy solution to the existing unfairness and procedural injustices that were found during the research. Therefore, the international and national laws at issue should be further developed in the direction where they could specify and determine the fair and equitable degree of benefit sharing between the Indigenous Peoples and the businesses involved in the commercialization of the MGRs products and utilization of TK associated with them.

[339] Tobin, Brendan. "Setting Protection of TK to Rights – Placing Human Rights and Customary Law at the Heart of TK Governance" in Evanson Chege Kamau, & Gerd Winter, eds., Genetic Resources, Traditional Knowledge and the Law: Solutions for Access and Benefit Sharing (London; Sterling, VA: Earthscan, 2009), 102.
[340] Swiderska, Krystyna. "What happened at Nagoya?", International Institute for Environment and Development (November 2010)

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