Previous Informed Consent as the Core Principle for the Conference on Biodiversity

By

BEXIGA, Caio Augusto Zouain

THESIS

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

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ABSTRACT

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By BEXIGA, Caio Augusto Zouain

The UN's Conference on Biodiversity (CBD) is currently at a crossroads, defining its new strategic plan aimed to last at least until 2050. With the global coronavirus pandemic, this new document has gained even more attention since it monitors and accesses biodiversity and its uses across the globe. Relying on the document's first draft, a proposition for the Conference to recognize that Previous Informed Consent (PIC) – a institute that assures consent within a negotiation – is a guiding principle for all further negotiations and documents made by the CBD is found.

PIC has been an institution within international law for over 50 years, having been inserted into CBD treaties and documents. Even so, PIC faces fierce opposition from parties and private sectors due to their fear of losing economic and negotiation power on biodiversity access deals, which define the means of a species commercial and industrial applications as well as the benefit repartition of profits.

This work analyzes the CBD's structure, international bodies, international jurisprudence, and doctrine to demonstrate that the adoption of PIC as a principle is not only logical but also an action that benefits all parties involved, whether for assuring rights and legal certainty, better tracking, standardization of interpretations of the institute, or the like.

KEYWORDS: Previous Informed Consent; Conference of Biodiversity; 2050 Vision of Living in Harmony with Nature.

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List of Abbreviations

Abbreviation	Explanation
ABS	Access and Benefit Sharing
ABS Clearing House	
AU	African Union
CBD	Convention on Biological Diversity
CERD	Committee on the Elimination of Racial Discrimination
CESCR	Committee on Social, Economic and Cultural Rights
COP	Conference of Parties
IFC	International Finance Corporation
ILO	International Labor Organization
IPLC's	Indigenous People and Local Communities
LMOs	Living Modified Organisms
MAT	Mutually Agreed Terms
OAU	Organization of African Unity
PIC	Previous Informed Consent
UNDRIP	United Nation's Declaration on the Rights of Indigenous Peoples
WG8J	Working Group on Article 8J
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

INTRODUCTION

The treatment of biodiversity and its derivative genetic materials as well as the manner in which research is conducted have greatly changed in the past decades to provide fairer agreements to contractors in regards to benefit sharing and access to information. At the same time, the UN's Conference on Biodiversity (CBD) is on the cusp of reevaluating its strategic plan as the term of the previous one has passed.

One category of stakeholders to perform a significant part in the new strategic plan is indigenous people and local communities (IPLCs), given their actions concerning access to biodiversity and conservation. IPLCs are present on all continents of the world, and they share a common linkage among their cultures with the land they occupy. This relationship brings forward an inherit conservation of biodiversity on the territories occupied by IPLCs, as well as providing the scientific community with artificially selected species of extreme research and industrial relevance (Mgbeoji, 2006).

However, few international laws have acknowledged IPLCs' rights and aspirations to ensure the continuity of their way of life and knowledge, mainly their agency over their land's biodiversity. The main piece of legislation that addresses IPLCs' rights is the 1992 Convention on Biological Diversity (CBD), sanctioned by 196 countries, which states in its preamble the following terms:

> Recognizing the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components.

Articles 8 (j), 17 (2), and 18 (4) of the CBD specify the rights to preserve, share information, and gather benefits from biodiversity access derived from their lands. Biodiversity access can be defined as the way organisms, their genetic material, or

associated traditional knowledge are discovered, gathered, used, and shared. This has been an important theme in international negotiations that began to be formed in 1992 at the United Nations Nairobi Convention, where the CBD was adopted.

Another important agenda for CBD negotiations on Biodiversity Access agreements is benefit sharing, understood as the way an appropriate compensation is given to providers of the knowledge needed to find and to extract benefits from a specific specimen or genetic material. The benefits shared may be owed to a specific country or an indigenous/traditional community.

The CBD has been a foundation for successive international negotiations on biodiversity and agreements like the Cartagena Protocol (2000) and the Nagoya Protocol (2014), which are subsidiary bodies of the CBD. The Nagoya Protocol established the Access and Benefit Sharing Clearing House (ABS Clearing House), which has the power to facilitate the enactment of the Nagoya Protocol, as well as to monitor and superintend the "utilization of genetic resources along the value chain" (The Nagoya Protocol on Access and Benefit-sharing, n.d.) by issuing an internationally recognized certificate of compliance that functions as proof of adequate access to genetic resources in compliance with the CBD, the Cartagena Protocol, and the Nagoya Protocol (Greiber, et al., 2014).

As an effect of the Nagoya Protocol adoption, any biodiversity access by its signatories must contain a correspondent certificate of compliance issued by the ABS Clearing House. The certificate of compliance to the protocol contains details regarding the provider and the user of biodiversity, the specific organism or genetic material inserted within the access, and other information to ensure the traceability of the material used. Therefore, stricter rules about what can be defined as compliance directly affect companies' and countries' finances, while a lax definition would increase the risk of a

lack of efficiency of the protocol, leaving IPLCs and biodiversity holders under threat of neither being allowed to negotiate nor to receive compensation for their contributions.

Given the ABS Clearing House interpretation of the protocol's importance, it should come as no surprise that nations that host biotechnology enterprises, and the enterprises themselves, employ heavy lobbying within CBD meetings, oftentimes leaving IPLCs and global south countries underrepresented due to a lack of funds and human capital. It must be highlighted that even though the United States did not sign the CBD or its protocols, it still attempts to indirectly influence the convention's decisions, taking a strong pro-business approach.

As of today, the Nagoya Protocol is only now being implemented, around seven years after being adopted by CBD members. The implementation process has been addressed by the Conference of the Parties 13 (COP13 of Cancun, 2016), which had set a plan for the full operation of the protocol to occur in 2020. Despite the unfulfilled goals set in Cancun, it is worth noting that a problem has risen in recent years. National legislations adopted within the jurisdiction of the treaty signatories, written after the Nagoya Protocol's signature, have stated their compliance to the protocol while, in reality, breaking the core goals of the agreement, namely, on providing adequate previous informed consent (PIC), mutually agreed terms, and proper access and benefit-sharing to all of the parties involved with biodiversity access. While each of the aforementioned goals is further explained in the first chapters, PIC broadly consists of the biodiversity holder conceding, from their own free volition, a permit to the user that seeks to access said biodiversity before the access occurs. Mutually agreed terms (MAT) occur in the beginning of the biodiversity access process, wherein the terms on which the access will occur must remain open to be proposed, modified, and agreed by both provider and user. Finally, fair and equitable access and benefit-sharing (ABS) relates to the division of

profits and benefits granted from biodiversity access, ensuring the fairness of this division to users and providers alike. Since the ABS Clearing House is not nationally grounded and does not consider the law background of every country in its scope, clear directives to access compliance must be set for it to properly assess a country's compliance to the Nagoya Protocol.

Moreover, on a larger scale, the CBD moves toward adopting a new biodiversity framework, the 2050 Vision of Living in Harmony with Nature goals adopted by its Decision 14/34,[1] which is expected to set the tone needed to achieve a pathway toward a sustainable future with no more loss of biodiversity by implementing a transformational change to the world economy. The planning, as of this writing, is in the midst of a series of consultation workshops happening around the world, which will produce recommendations given by a set of working groups created by the CBD and segmented into key subjects with the objective to inform further negotiations toward the final 2021 document. These will establish the concrete stepping stones for achieving the 2050 vision.

One of the most recent interdisciplinary international working groups established in Montreal (WG8J) has concluded a list of recommendations regarding traditional communities' role and integration within the protocol's activities and actions.[2] These recommendations include the adoption of the principle of PIC as an essential tool to assure "the full and effective participation of indigenous peoples and local communities" in the development of a new program of work on traditional-related communities' provisions to be adopted by the CBD. This means that, once adopted, representatives of IPLCs, along with the international community, would develop a new plan of actions to assure their participation at all phases and degrees of implementation of the CBD and its protocols. Currently PIC is treated as an institute that may only be applied to Biodiversity

[1] Available at: https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-34-en.pdf
[2] Available at: https://www.cbd.int/doc/recommendations/wg8j-11/wg8j-11-rec-02-en.pdf

Access when determined by a specific article or ruling. The effect PIC as a outlined institute generates is the non-application of PIC whenever new technologies or processes are involved such as the use of digitalized genetic information from previous researches and the use of genetically altered organisms to change an ecosystem to a desired outcome – which strongly benefits biodiversity users, who are not required to perform PIC until it is properly regulated by the CBD, which could take years or even decades.

Whereas the adoption of PIC as a Principle wouldn't provide direct procedural closure to arguments, it poses as a guide to interpretation that must be followed by international courts and oblige biodiversity users to minimally include PIC within their processes. Currently PIC is only applied and taken into consideration when rulings specifically mention it, being left out of new discussions and topics that may affect IPLC's and Global South nations. One such example are digital sequencing of genetic materials: The digitalization of an organism's DNA and RNA sequences and subsequent utilization of this information on research, which currently only takes in PIC tangentially whenever IPLC's traditional knowledge is used for the first time – leaving out any subsequent uses of said information on different researches due to the inexistence of regulations in these cases.

Whereas PIC as principle would not be able to directly enforce rulings on the international and local spheres it would permeate further discussions and creations of new rulings as well as demand new interpretations of older regulation in order to adapt to PIC. Raising PIC to the status of a principle, therefore, would create a minimal standard and oblige the CBD and its signatories to incorporate PIC on all of their legislation comprehensively.

The adoption of PIC as a principle, however, faces resistance from biotechnology companies and from global north countries since this would not only give IPLCs control

over their traditional knowledge but also the power to deny access to that knowledge and to the genetic material attached to it. This would thus grant greater control over the ways that biodiversity could be used along the productive chain, resulting in greater inclusion of these stakeholders in the final product from biodiversity accesses and diminishing the face-value negotiation power granted to biodiversity users that have been a part of this relationship thus far. Strengthening PIC by elevating it to a principle recognized by the CBD, therefore, could lead to a sensible shift in negotiation power toward IPLCs and in future resolutions embraced by the conference of the parties as PIC would be immediately implemented on all instances, which is why this issue has not yet been settled up to this point. Thus, the adoption of all recommendations by the working groups is uncertain given the long rounds of negotiations yet to come in 2021 and in the decades to follow.

The declaration of PIC as a principle would moreover create a clear directive to be followed not only by the CBD but by the international community in general. Since PIC currently only consists of a set of general rulings, mainly from the CBD, there are multiple interpretations of what it means to accomplish PIC. The rulings on PIC come from places such as UN bodies, the World Bank, international courts, and class entities with some similarities and differences about accessing the occurrence of PIC.

Nonetheless, the lack of standardization of PIC across international bodies generates uncertainty about the extent of rights held by IPLCs and often leads to judicial conflicts. A clear understanding of PIC and its limits by the CBD would be a source for other institutions, assuring IPLCs their rights and legal certainty to enterprises and researchers. The alternative to not consolidating PIC is to wait for the institutions to gradually change their definitions to ones that synchronize with each other. However, there is no indication of if or when the alignment of institutions' rulings might happen

given the fact that the matter has only reached agreements so far with rulings from the UN or the CBD.

This research proposes to analyze in depth the effect the discourse on PIC has had on CBD negotiations across 28 years of its existence. The analysis includes the CBD's formation and complementary international law and doctrine, ultimately arguing that the kernel of the principle of PIC has already been at the core of the main documents and treaties adopted so far. Thus, this paper aims to demonstrate that not raising PIC to the status of principle would go against all of the goals set by the convention and against international law and doctrine.

In addition, all decisions and documents subscribed by CBD parties are directed toward fulfilling the goals first determined in 1992; therefore, backtracking on matters previously decided would represent a direct violation of the original signatories' commitment.

Within the CBD, the effect of PIC is highlighted by instances where PIC enters rounds of negotiations, and the matter only proceeds once an agreement is reached with all parties to keep PIC on the proposed document. This shows that parties eventually accommodate PIC, acknowledging the matter as necessary to further any of their own agendas. Since the CBD resolutions and treaties are only adopted by consensus, any single disagreement from any party completely blocks the advancement of a proposed document. Because of the consensus rule, matters with lower resistance come to pass with more ease and fewer revisions. When PIC passes negotiations with minimal effort, it points to an underlying consensus toward it and to the consolidation of a principle within the CBD, as proposed by the 2021 strategic plan draft.

In regard to international law, PIC in form of a principle arises from the analysis of precedents set by international courts such as the Awas Tingni and the Saramaka Cases,

where the Interamerican Court of Human Rights set clear PIC parameters to be followed when IPLCs are involved.

Finally, an analysis of international and biodiversity law doctrine extracts the status of principle given to PIC and its extent, demonstrating significant momentum toward this understanding among scholars around the world. The sum of CBD negotiations, jurisprudence, and doctrine provides this work with empirical evidence on the treatment of PIC internationally, apt to answer the following question: Why should PIC be a guiding principle for the next CBD meetings and treaties?

Instances where discussions of PIC blocked negotiations among the parties that had been adopted in international courts and international and biodiversity law doctrine therefore demonstrate that the CBD, and the international community *de facto,* has adopted the principle, even though it has not formally recognized it yet. Future CBD and ABS Clearing House resolutions, therefore, are expected to behave in consonance with the principle of PIC.

RESEARCH METHOD

This work uses qualitative methods of analysis regarding quotations about PIC in the contexts of international agreements, organization documents, international jurisprudence, and doctrines. In international agreements, PIC is analyzed in the final form of the documents as well as in previous drafts used for negotiations. Particularly for the CBD, all versions and drafts are publicly available, which is why most non-finalized versions of agreements used are concentrated within the CBD and its subsidiary bodies.

Whenever PIC is found in international agreements, the goal is to screen the context into which the institute is inserted and the role it plays in the document. The

question of whether PIC is mandatory and if it spills over to other rulings is fundamental to assert the nature of principle of the institution and the effects it carries with it.

Regarding organization documents, once again the mandatory nature of PIC is taken into account, but the discussion mostly targets the effects of the adoption on the organization's operation and the changes it has caused. With this, it is possible to check whether PIC is actually followed and the weight it represents in organizations. If PIC is able to modify the organization and even create particular rulings concerned with its application, it may be cited as a principle followed by the organization.

The focus on international jurisprudence in this work is not on particular case outcomes because every case may have specific determinations by courts that are only applied to those cases. Instead, the reasoning provided by the courts is the main objective, especially when it is expressed as an intent of setting a standard for future cases and similar issues. While it is true that international jurisprudence includes some interpretation of international treaty law, most decisions applied are much more linked to precedents, making it so that the analysis of reasoning in paradigm cases is much more relevant to the assessment of strength of PIC as a principle than the final outcome of those cases.

Finally, a qualitative study of doctrine tends to be easier since scholars are much clearer on categorizing PIC as a principle. Therefore, whenever a source recognizes PIC as a principle, the inquiry remains on the arguments put forward to form a network of complementing rationales under which PIC should be considered a principle (as argued by this thesis). All of the results of this investigation are consolidated in a short conclusion at the end, synthesizing the premises for the principle of PIC on the international stage.

The selected documents presented on this thesis were reached via a keyword search on academic databases and on the UN public database with the term "Previous

Informed Consent". Simple mentions to PIC with no development to the topic were excluded from the results. Since the topic at hand concerns a principle discussion, it is natural for the qualitative method to be used as in many cases the documents must also be analyzed from the context surrounding them and the developments they entail – all of which would be lost if a quantitative research method were applied.

PIC ON THE CBD AND ITS PREDECESSORS

To more deeply comprehend the context in which the Nagoya Protocol and the CBD are inserted and the role PIC plays within the documents, it is necessary to examine the international agreements responsible by defining the terminologies and discussions in this research.

Firstly, the concept of PIC itself must be understood, from its first appearance on the international stage with the International Labor Organization's (ILO) Convention 169 to its direct derivation from the post-Second World War Universal Declaration of Human Rights. Secondly, it is important to conduct an analysis of how PIC was established within the CBD itself and how it is inserted into the framework established by the convention, moving onto its subsidiary protocols, namely, the Cartagena and Nagoya Protocols.

This chapter, therefore, further expands on the institute of PIC to provide better context for this research's claim that it has already been performing as an essential principle to the CBD and that it will be recognized as essential going forward.

a) The UN's Declaration of Human Rights and the ILO's Convention 169 on Indigenous and Tribal Peoples Convention's Impact on Biodiversity Law

The ILO has touched upon indigenous and traditional people's rights ever since the post-World War I era, having finally reached a consensus with its signatories in 1989.

This was the origin of the document known as Convention 169, defined by the ILO's Handbook in the following manner:

> ILO Convention No. 169 on indigenous and tribal peoples is an international treaty, adopted by the International Labour Conference of the ILO in 1989. The Convention represents a consensus reached by ILO tripartite constituents on the rights of indigenous and tribal peoples within the nation-States where they live and the responsibilities of governments to protect these rights. It is based on respect for the cultures and ways of life of indigenous peoples and recognizes their right to land and natural resources and to define their own priorities for development. The Convention aims at overcoming discriminatory practices affecting these peoples and enabling them to participate in decisionmaking that affects their lives. Therefore, the fundamental principles of consultation and participation constitute the cornerstone of the Convention. Further, the Convention covers a wide range of issues pertaining to indigenous peoples, including regarding employment and vocational training, education, health and social security, customary law, traditional institutions, languages, religious beliefs and cross-border cooperation. (International Labour Office, 2013)

This agreement was introduced as a deterrent to prevent abuses of indigenous and traditional communities' rights and way of living while also recognizing the vulnerability of these people to the social organizations into which they are inserted. Oftentimes, indigenous and traditional people are exploited for work purposes, generating concern from the ILO and, therefore, its interference in the matter.

The 169 ILO Convention can be interpreted as an assurance of compliance to the Universal Declaration of Human Rights concerning indigenous and traditional people,[3] having created parameters and procedures to be followed once a state reaches a matter pertinent to them. This limits the decision-making process and obligates signatories to obtain the consent of the affected people before enforcing the intended measures. Most notably, "consent" is the important keyword of the convention; the ILO demands that any consent must be given previous to the decision-making, free of coercion and in possession

[3] On recent years the expression "Tribe" was phased out of academic and international law texts due to its implications on the societies that it describes as "less developed", "primitive" or "incomplete", therefore said terminology will be avoided by this work.

of all the information regarding the decision analyzed, making it a "previous, free and informed consent."

The principle of PIC may therefore be defined by the assurance that IPLCs be consulted to provide their voluntary consent before a person, an institution, or an individual accesses traditional knowledge or genetic resources in their territory (Firestone, 2003), providing the communities with complete information of the risks and implications of access, with no form of coercion (Bensusan & Lima, 2005). The ILO provided the framework that would be the basis for documents for decades to come. The formation of PIC itself was meant to be a guide for relations with IPLCs worldwide, and it can be argued that it was the purpose of the resolution to create a new international principle.

The definition of PIC was directly imported into the text of the CBD, where the access to genetic resources remains conditioned by Article 15 (5) of the convention to the occurrence of PIC of the provider of the material. Thus, the 169 ILO Convention had a direct impact on CBD structuring of both states' and indigenous and traditional communities' positions within the convention.

The mutual agreement of parties to access genetic material was a concern even in the early stages of negotiation of the convention. In February 1990, the second session of the Ad Hoc Working Group of Experts on Biological Diversity, which structured the basis document for the convention, reached a consensus on the following terms:

> (iii) accessibility to biological diversity, including new varieties, and to related technologies, including conservation technologies, are two sides of one and the same coin and must be an integral part of the planned legal instrument. (United Nations Environmental Programme, 1990)

This consensus was reached by representatives from 41 nations spanning across every continent, including the United States and the Soviet Union (the most antagonistic views from that era). It was later consigned on the aforementioned Article 15 (5) and, most relevant to IPLCs, on Article 8 (j).

Given its context and further development, the 169 ILO Convention expanded on the Universal Declaration of Human Rights and provided the international community with the cornerstone needed, the 1992 United Nations Convention on Biological Diversity, to put together a treaty based on mutual respect and on PIC of parties.

b) The CBD (1992): Planning and Establishing Future Protocols and Principles

Established in 1992, the CBD contains the basis for biodiversity access to be had not only between parties but also within private sector actors, further distinguishing treatment to be given to IPLCs that hold biodiversity resources:

> Article 8. In-situ Conservation
> Each Contracting Party shall, as far as possible and as appropriate:
> (…)
> (j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

This article was inserted into the CBD agreement due to the fact that IPLCs are responsible for an essential part in biodiversity innovation. As noted by Professor Ikechi Mgbeoji, at times 74% of the pharmacologically active trees reported by an indigenous group correlated with laboratory tests, while random samplings by nonindigenous scientists only provided 8% of similar results (Mgbeoji, 2006). In a similar fashion, Professor Michael Balick has associated the use of traditional knowledge in traditional science to an increase of over 400% of screening plant-based material for medicinal purposes (Balick, 1990).

In addition to the undeniable position occupied by indigenous and traditional communities in biodiversity access, the need for creating a separate system for IPLCs that differs from the more widely used patent system has been explained. The system adopted

by the World Intellectual Property Organization (WIPO) doesn't provide proper protection to traditional knowledge nor does it take into account the cultural context on which traditional knowledge is produced (Santilli, 2005).

Free exchange and circulation of information are essential to the production of traditional knowledge since it is created in a collective manner and passed on to new generations orally whereas patents protect individual innovations or innovations that can be individually identified. WIPO's system promotes fragmentation of knowledge and a removal of the invention from the context of its production and from the collectivity that shares it (Santilli, 2005).

Adopting the patent system for traditional knowledge still presents multiple improprieties broadly documented (Santilli, 2005).

> Beyond that, only inventions subject to industrial application are patentable, and in many cases the traditional knowledge does not dispose of direct industrial application, although it can be utilized to develop products or processes that have that characteristic. Patents also dispose of a set time limit for their lifespan, assuring a temporary monopoly over the utilization of their object. In general, it is not possible to define a moment in which a specific traditional knowledge was produced or created (…).
> (…)
> The inventive and creative processes of these populations are, in essence, collectives, and the utilization of generated information, ideas, and resources based on these processes is widely shared; therefore, the conception of a property law—belonging to an individual or to determined individuals—goes against the values and conceptions that lead the collective life in these societies. For this reason, the defense of adopting the concept of "collective property rights" (or communitary) is explained to exclude the property, given its exclusivist, monopolistic, and individualist characteristics. [4]

[4]Santilli, J. *A proteção jurídica aos conhecimentos tradicionais associados à biodiversidade* (The judicial protection to traditional knowledge associated to biodiversity. *In* Rios, A. V. V. & Irigaray, C. T. H. (2005). *O direito e o desenvolvimento sustentável: curso de direito ambiental* (Law and sustainable development: course in environmental Law). São Paulo: Editora Petrópolis, p. 77. Translation: "Além disso, apenas são patenteáveis as invenções que tenham aplicação industrial, e muitos conhecimentos tradicionais não têm aplicação industrial direta, ainda que possam ser utilizados para desenvolver produtos ou processos que a tenham. As patentes têm ainda um prazo de vigência determinado, conferindo um monopólio temporário sobre a utilização de seu objeto. Em geral, não é possível precisar op momento em que determinado conhecimento tradicional foi produzido ou gerado (como precisar, por exemplo, o momento em que os povos indígenas passaram a utilizar o ayahuasca com fins medicinais?).
(...)
Os processos inventivos e criativos de tais populações são por essência coletivos, e a utilização das informações, ideias e recursos gerados com base em tais processos é amplamente compartilhada; portanto, a concepção de um direito de propriedade – pertencente a um indivíduo ou a alguns indivíduos

With this in mind, the CBD attempted to develop a system wherein traditional communities' rights and ways of life could be preserved while still allowing for research and access to economically relevant biodiversity from the private and public sectors. This attempt validated the idea of using PIC one year before the CBD final text was adopted, in the fifth negotiating session of the convention:

> Article 14. [Regulated] Access to [Biological Diversity] [Genetic Material]
> (…)
> 4. Access to genetic material [genetic resources] shall be based upon the prior [informed] consent of the Contracting Party providing such material (Intergovernmental Negotiating Committee for a Convention on Biological Diversity, 1991).

It is important to note that the document quoted above still had several brackets, a way for the conference to signal that those matters were still under discussion. However, once finalized, the text of the convention has the same components as its original proposition, but it added an exception to cases where the specific party waives its rights:

> 5. Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.

With this article, the CBD creates an assumption that PIC suffices to ensure the safety of IPLCs' knowledge. PIC in this context attempts to conciliate more commercial and more traditional-based views. By these actions, the convention begins to address the issues caused by past exploitation of IPLCs, lowering the possibility of further exploitations occurring (Schroeder, 2010). It should be noted that, in this instance, PIC may not have been considered from the beginning, but when the institute entered the drafts to the proposition, it was not possible to remove it afterward. All parties agreed that PIC had to remain in the document's final text.

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determinados – é estranha e contrária aos próprios valores e concepções que regem a vida coletiva em tais sociedades. Por tal razão é que se defende a adoção do conceito de "direitos intelectuais coletivos" (ou comunitários), para excluir a propriedade, por causa do seu caráter exclusivista, monopolístico e individualista"

The signature of the CBD represents a mark where international law starts to prohibit development and research of traditional knowledge without the consent of IPLCs, establishing PIC, MAT, and fair and equitable benefit-sharing as minimal standards to be followed worldwide (Bodeker, Kronenberg, & Burford, 2007).

Even after establishing the aforementioned parameters, the CBD created a working group on Article 8(j) in 2000, geared toward implementing the previsions of the agreement and also enhancing effective involvement of indigenous and traditional communities in CBD negotiations. This working group has determined via Decision V/16 that traditional knowledge access should always be preceded by PIC. The working group has also produced a collaborative framework called the Akwé: Kon Guidelines, which serve as a leading document to parties of the convention on how to conduct development policies within sensitive lands occupied by IPLCs, applying PIC as a mandatory disposition in all of its steps.

The mandatory nature of PIC and the emphasis given to it point to a very clear understanding from the CBD of the importance of the institute—enough to only allow for biodiversity accesses that comply with PIC.

While the CBD provided the international community with a stable framework on how to conduct business and research regarding biodiversity access, the initial text of the convention itself understood the limitations of reaching an agreement at that given point regarding more technical and sensitive matters, namely the transport and handling of biological material and the process of how to attain access and assure fair and equitable benefit-sharing. The convention, therefore, established the framework for future negotiations regarding unfinished or untouched topics, suggesting the need for specific protocols to be implemented after its passing:

> Article 19. Handling of Biotechnology and Distribution of Its Benefits
> (…)

> 3. The Parties shall consider the need for and modalities of a protocol setting out appropriate procedures, including, in particular, advance informed agreement, in the field of the safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity.
>
> COP 6 Decision VI/24
> (…)
> The Conference of the Parties
> (…)
> 7. Decides to keep under review the implementation of the guidelines and consider the need for their further refinement on the basis of, inter alia, relevant work under the Convention, including work on Article 8(j) and related provisions…

These provisions facilitated new negotiations and furthered the need to establish clear rules to assure the accomplishment of the CBD's principles, among them adequate PIC. The negotiations provided, most well known in regards to the effects produced, two different protocols: the *Cartagena Protocol on Biosafety* (2000) and the *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization (ABS)* [2014].

c) The Cartagena Protocol on Biosafety (2000): Ensuring Safe Access to Biodiversity

One of the most immediate issues under discussion after the signature of the CBD, in its second meeting in 1995, was on how to safely research and transfer living modified organisms (LMOs), arising from the increasing relevance of LMO research in the early 1990s. The negotiations would then lead to the passing of the Cartagena Protocol a mere five years later, providing parties with a standard and transparent framework for how to handle biological material as a whole.

Despite the fact that the Cartagena Protocol does not touch upon the steps leading to biodiversity access, the document provided the basis for the next protocol adopted by the CBD, creating a subsidiary body to the protocol. This was called the Biosafety Clearing House, which was responsible for providing any party with information

regarding the specific genetic material being handled at any given moment. It effectively enabled LMOs to be traced to every location where they had been handled and ensured accountability for any infraction to the articles of the protocol, a model that was replicated by the Nagoya Protocol, as further detailed.

d) The Nagoya Protocol on Biodiversity Access (2014) and Its Current Implementation

In 2014, the most recent protocol to the CBD came into being: the Nagoya Protocol on Biodiversity Access. This protocol regulated what was considered one of the spiniest matters dealt with by the CBD: the manner in which access, research, and benefit-sharing is conducted and which inputs are required to be provided by parties, IPLCs, and private enterprises for access to be validated. Within its boundaries, the Nagoya Protocol set out to address particularities regarding biodiversity access concerning both IPLCs and private enterprises.

Irigaray and Rios have analyzed the required regulation protection to recognize the rights of IPLCs, considered as the collective target group of intellectual property rights. For these authors, any approved regulations should ensure free knowledge interchange between people and communities, with the recognition of their own representative systems along with the moral and patrimonial contents of intellectual property rights (Rios & Irigaray, 2005). Concerning the objectives of the protocol, literature has already touched upon the need of PIC, thought to be essential in any industrial application of traditional knowledge (Bensusan & Lima, 2005).

Given the abovementioned concerns regarding decision-making, ownership of biodiversity, and information exchange within IPLCs, the Nagoya Protocol states in Article 6 (paragraphs 2 and 3) the need for parties to attain PIC in cases of biodiversity access that are held in some way by IPLCs:

> Article 6
> ACCESS TO GENETIC RESOURCES
> (…)
> 2. In accordance with domestic law, each Party shall take measures, as appropriate, with the aim of ensuring that the prior informed consent or approval and involvement of indigenous and local communities is obtained for access to genetic resources where they have the established right to grant access to such resources.
> 3. Pursuant to paragraph 1 above, each Party requiring prior informed consent shall take the necessary legislative, administrative or policy measures, as appropriate, to:
> (a) Provide for legal certainty, clarity and transparency of their domestic access and benefit-sharing legislation or regulatory requirements;
> (b) Provide for fair and non-arbitrary rules and procedures on accessing genetic resources;
> (c) Provide information on how to apply for prior informed consent;
> (d) Provide for a clear and transparent written decision by a competent national authority, in a cost-effective manner and within a reasonable period of time;
> (e) Provide for the issuance at the time of access of a permit or its equivalent as evidence of the decision to grant prior informed consent and of the establishment of mutually agreed terms, and notify the Access and Benefit sharing Clearing-House accordingly;
> (f) Where applicable, and subject to domestic legislation, set out criteria and/or processes for obtaining prior informed consent or approval and involvement of indigenous and local communities for access to genetic resources; (…)

Not only that, but the protocol also establishes the need to promote fairness and equity of negotiations so that biodiversity access occurs only after the establishment of MAT “between providers and users of genetic resources”:

> Article 6
> ACCESS TO GENETIC RESOURCES
> (…)
> 3. Pursuant to paragraph 1 above, each Party requiring prior informed consent shall take the necessary legislative, administrative or policy measures, as appropriate, to:
> (…)
> (g) Establish clear rules and procedures for requiring and establishing mutually agreed terms. Such terms shall be set out in writing and may include, inter alia:
> (i) A dispute settlement clause;
> (ii) Terms on benefit-sharing, including in relation to intellectual property rights;
> (iii) Terms on subsequent third-party use, if any; and
> (iv) Terms on changes of intent, where applicable.
> Article 7

> ACCESS TO TRADITIONAL KNOWLEDGE ASSOCIATED WITH GENETIC RESOURCES
> In accordance with domestic law, each Party shall take measures, as appropriate, with the aim of ensuring that traditional knowledge associated with genetic resources that is held by indigenous and local communities is accessed with the prior and informed consent or approval and involvement of these indigenous and local communities, and that mutually agreed terms have been established.

It must be noted, however, that the protocol only demands such procedures to be taken in accordance to domestic legislation of the parties, meaning the manner in which these provisions are carried out depends on the signatories of the protocol, with the possibility of oversight by the Nagoya Protocol Clearing House, to which all biodiversity access must be reported.

The understanding of PIC by the Nagoya Protocol Clearing House is therefore a major point of attention since CBD provisions give the clearing house the parameters to assess biodiversity accesses. A clear ruling by the CBD on PIC would bring more transparency and foreseeability to the signatories of the protocol, while silence would delegate the mission of understanding the boundaries and the minimal content of PIC to the clearing house, creating gray areas within and possible sanctions on biodiversity access.

Furthermore, fair and equitable benefit-sharing is a reoccurring topic in the Nagoya Protocol and one that requires attention within proper PIC. Sarah Laird, director of the People and Plants International organization and author of two books on biodiversity access, points to the need of any legislation on biodiversity access to, firstly, assure human rights and self-determination of IPLCs and, secondly, to prevent unfair agreements and loss of traditional knowledge, as well as to preserve biodiversity. This legislation must also observe traditions of the communities as well as eliminate gray zones, interpreting them as favorably as possible for these groups since they will always be on unequal grounds when facing economic agents seeking to explore/exploit their

knowledge. Furthermore, governments must adapt to and encourage these new economic relations, promoting public policies to assure the cultural perpetuity and inclusion of and strengthen indigenous and traditional communities, allowing them to actively participate in the maintenance of biological resources. This shifts the control over the knowledge to the communities and creates codes of conduct related to the access (Laird, 2001).

The pharmaceutical and cosmetics industries are the main requestors of access to biodiversity: the top 25 biotechnology industries are responsible for $32.251 billion USD in sales in the United States alone (Rosen, 2006). Faced with this scenario, Laird has imposed the requirement that any biodiversity and traditional knowledge access must be undertaken with state intervention to ease the inherit economic power inequality (Laird, 2002). Likewise, PIC must be assured at all times, even concerning scientific research on the materials, once there is potential for economic uses of these substances, demanding MAT to be established between access granters and requestors. Not only PIC and MAT but also the returns to the communities must be assured through fair and equitable benefit-sharing, with a state duty to create mechanisms of contractual control and revision, granting protection to the biodiversity providers, containing general commercial dispositions as well as those related to intellectual property rights, material transfer agreements, environmental authorizations, land lease, the community's provided technology usage, contractual revision situations, and the requestor's declaration of intentions. With this in mind, the Nagoya Protocol established a mandatory state-intervention on the benefit-sharing aspect of biodiversity access that involves IPLCs to assure equity and fairness of negotiations:

> Article 5
> FAIR AND EQUITABLE BENEFIT-SHARING
> 1. In accordance with Article 15, paragraphs 3 and 7 of the Convention, benefits arising from the utilization of genetic resources as well as subsequent applications and commercialization shall be shared in a fair and equitable way with the Party providing such resources that is the country of origin of such

> resources or a Party that has acquired the genetic resources in accordance with the Convention. Such sharing shall be upon mutually agreed terms.
> 2. Each Party shall take legislative, administrative or policy measures, as appropriate, with the aim of ensuring that benefits arising from the utilization of genetic resources that are held by indigenous and local communities, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over these genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms.
> 3. To implement paragraph 1 above, each Party shall take legislative, administrative or policy measures, as appropriate.
> 4. Benefits may include monetary and non-monetary benefits, including but not limited to those listed in the Annex.
> 5. Each Party shall take legislative, administrative or policy measures, as appropriate, in order that the benefits arising from the utilization of traditional knowledge associated with genetic resources are shared in a fair and equitable way with indigenous and local communities holding such knowledge. Such sharing shall be upon mutually agreed terms.

These articles are also fundamental to address the threat of biopiracy, which is defined by the act of "transferring genetic material (animal or vegetal) and/or biodiversity associated traditional knowledge without the proper authorization of the State from which it was extracted or the traditional community that developed and kept determined knowledge through time (practice which goes against the obligatory dispositions of the United Nations' Convention on Biodiversity)" (Barbieri, 2014). It involves, furthermore, the "not fair and equitable benefit sharing of the resources derivate from commercial exploration or not of the resources and knowledge transferred between States, corporations and traditional communities" (Barbieri, 2014). Biopiracy, therefore, bypasses national and CBD boundaries, draining resources from parties and, more importantly for this work, denying proper PIC to be applied.

To avoid the risk of biopiracy products being commercialized on the international stage, the Nagoya Protocol has also created a subsidiary body named the ABS Clearing House, which centralizes all biodiversity access involving at least one of its parties, creating a clear and traceable thread for every access and easily identifying any unlawful or extraneous procedure to the protocol within its boundaries.

PIC is thus placed in the center of analysis on unruly biodiversity accesses: its occurrence assures the clearing house of respect to IPLCs and parties alike, and a lack of compliance points to a case of biopiracy. Once again, it is critical that the boundaries for PIC are set within clear parameters so that the risk of exploitation of loopholes by petitioners may be severely diminished.

With this final addition, the Nagoya Protocol provided closure to the major regulation of biodiversity negotiation, inserting PIC within several of its procedures and articles in a way that it must be considered as a fundamental cornerstone in any further negotiation.

e) Opposition of PIC within the CBD and the UN System

Opposition to PIC within the UN System seldom comes in a definite and direct document. Argumentation often times shifts from PIC as the topic of discussion or attempts to put forth the stance that the topic under discussion does not imply on the need to obtain PIC. A good example of shifting the discussion can be found on the negotiation rounds leading up to Decision 14/20 on digital sequence information on genetic resources adopted by the COP on November 30th 2018. Developed nations argued against the document that would become Decision 14/20 under the grounds that digital sequences were not considered biodiversity and therefore not subject to the CBD nor to PIC. While Decision 14/20 came into pass recognizing the relevance to digital sequencing to the CBD with determinations to create further studies on the matter, the simple admission of relevancy of the topic to negotiations spanned over four years due to this kind of interference.

It is worthy to note, however, contrary positions to PIC have been expressed in the past on the lead up to the World Bank's incorporation of PIC. The incorporation of

PIC by the World Bank will be discussed in the next chapter, hence this topic shall focus on the process of incorporation.

The presidency of the World Group sponsored a study named the Extractive Industries Review in 2001 as a response to the early 2000's growth of consciousness on carbon gas emissions and climate changes. Within its conclusions, the study recommended the adoption of PIC as an indicator by the World Bank, demanding changes from the organization.

Upon the study's conclusion a reply outline from the World Bank's management was publicized with several retorts to the final recommendations presented. This outline generated such a severe reaction from the civil society that the eventual final version of the document started the process of incorporation of PIC to the World Bank's processes.

The outline provided three lines of reasoning against the adoption of PIC: Firstly that PIC could represent a veto from IPLC's to a country development, secondly that broad community acceptance would be enough acceptance to a project rather than PIC and finally that PIC may only be required when local law demands the application of PIC (MacKay, 2004). These arguments have already been surpassed by the World Bank however they remain within the rhetoric of those opposed to PIC, reason why it is important to address this matter.

Opposite to giving IPLC's the power to veto development, PIC prohibits nations to use development as a catch-all term to carry out a project despite the opposition it may face, even violating IPLC's human rights and their right to self-determination.

Given the open context on which traditional knowledge is produced and the different ways decisions are made by IPLC's it is impossible to translate PIC as a general acceptance from the targeted community. It is clear from the first topics of this thesis that PIC is not the same as a declaration of approval from more than half of the members of

an IPLC group concerning a project, but a comprehensive method of guaranteeing consent backed by international law.

Finally, it seems obvious that an organization may demand stricter parameters than the ones required by local legislation especially when said parameters are derived from an international treaty signed by most nation-states in the world. The World Bank as well as any other international institution can also advocate for changes and better practices by using their own attributions.

It is certain that more arguments can be created against PIC on the future, however most direct opposition found on the international discourse derivate from the three points mentioned above – reason why indirect opposition has become more usual as PIC is increasingly adopted by international jurisdiction as it shall remain clear on the next chapter of this work.

PIC APPLIED AS A PRINCIPLE IN INTERNATIONAL JURISDICTION

The CBD and the connected legislation, shown in the previous chapter, are not the only instances where PIC may be found. The principle is applied in other regional legislations as a collateral for attaining international financial institute's credit and in international courts overall. In this chapter, the previously mentioned cases are further expanded, demonstrating how well PIC has penetrated institutes worldwide. PIC is once more applied in an obligatory manner, being enforced as a principle (in support of the main point of this thesis).

a) The African Union's Model Legislation and PIC regarding IPLCs

The African Union (AU) is an international cooperation body comprising 55 member states. The AU was created in 2002, succeeding the Organization of African

Unity (OAU, 1963–1999). It was during the organization's transition from OAU to AU that it released the *Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources,* a document directed at government officials and centered on protecting Africa's biological diversity and the people who depend on it to maintain their livelihoods (Ekpere, 2000). As such, the model legislation recognizes PIC as one of its main objectives in accordance to IPLCs' rights:

> PART I
> OBJECTIVES
> (…)
> c) provide an appropriate system of access to biological resources, community knowledge and technologies subject to the prior informed consent of the State and the concerned local communities… (Organisation of African Unity, 2000)

PIC also appears in the very first article of the document regarding access to biological resources, demanding PIC and a written permit for access to be correctly granted:

> PART I
> OBJECTIVES
> (…)
> PART III
> ACCESS TO BIOLOGICAL RESOURCES
> 1) Any access to any biological resources and knowledge or technologies of local communities in any part of the country shall be subject to an application for the necessary prior informed consent and written permit. (Organisation of African Unity, 2000)

With these determinations, the model law is also intended to serve as a guide to the procedure to be followed by African nations that adhere to the document, requiring PIC to be obtained for access to biological resources and to traditional knowledge. This applies to any request within the nation's borders, even if it comes from a protected area destined to safeguard the local environment or species (Ekpere, 2000).

It should be noted that this document came to pass more than a decade before the Nagoya Protocol was signed; however, its articles are in accordance with what would later be established by the protocol. As such, any national legislation adopted today based on the AU's model legislation would also be accomplishing the Nagoya Protocol's goals.

PIC within the AU's model law is treated as a principle: all of the concrete actions to be taken by legislation must be done while proper PIC is conducted. In the same manner, failure to obtain PIC means that national authorities may revoke or simply not grant access permits to corporate biodiversity users, turning this provision into hard law.

b) PIC on the International Finance Corporation's Performance Standard No. 7.

PIC can also be found in contexts spanning from the CBD framework. For instance, the principle has been incorporated by the World Bank's International Finance Corporation (IFC) in its performance standards on environmental and social sustainability.

Performance standards are set by the IFC as guidelines for their patrons so that they may identify, lower, and account for the impact of their enterprises on their environment, bringing more sustainable practices to the market. These guidelines become mandatory once the IFC's direct funding is involved, becoming a *sine qua non* condition to any business that intends to receive backing from the entity (International Finance Corporation, 2012).

Performance standard no. 7 is a response from the IFC to the evolution of indigenous rights on the international stage, not by coincidence being adopted in the same year as the ratification of the Nagoya Protocol. The document recognizes IPLCs' condition of vulnerability, most often being marginalized and therefore having their means of defending their rights hampered. IPLCs' land is considered a major factor of their cultural reproduction, making them more sensitive to development projects than other communities (International Finance Corporation, 2012).

The IFC recognizes PIC as a mean to grant more safety to IPLCs, designating the principle on the objective of the adoption of Performance Standard no. 7 whenever such communities are recognized by the environmental and social risks and impacts identification process stage of a credit analysis (International Finance Corporation, 2012). Once IPLCs are identified in a project, the receptor of capital is then responsible for attaining PIC whenever that project may interfere or cause any impact on the communities (International Finance Corporation, 2012).

The adoption of PIC by the IFC has a direct impact on the world's financial institutions, which since then have adopted the principle as a compliance indicator, following the IFC's ruling. Such is the case of the equator banks and many others. This represented a breakthrough of PIC into the private sector, incorporating IPLCs' rights as a factor to attain credit (Doyle, 2019). Thus, PIC is not only a principle recognized by international legislation, but it has also been *de facto* applied by the private sector, having being introduced by the World Bank and reflected down the production chain.

The formalization of PIC as a principle by the CBD has a multiplier effect, assuring its spread and further application. This also makes it so that the markets ensure the application of PIC as a self-preservation measure, transforming the position that a stakeholder previously held into one that moves forward along with IPLCs.

c) The UN System's Application of the Principle of PIC

In the previous chapter, the focus of the analysis remained on CBD-related treaties and documents; however, PIC is also touched upon by various other UN documents examined in this section.

The first and more obvious document from the UN addressing IPLCs is the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). UNDRIP is a result of decades of work and of overcoming resistance from UN parties regarding IPLCs' right to

self-determination. The first working group for the declaration started in 1982, the first draft was submitted to the UN parties in 1994, and the declaration finally passed in 2007 (United Nations Department of Economic and Social Affairs, 2007).

The amount of time taken by the UN to pass this document is a strong indicator that the matter has been thoroughly discussed by all members of the organization. It was not by chance that the declaration passed with but four contrary votes: Australia, Canada, New Zealand, and the US, the same parties that, even to this day, along with Japan, still pose resistance to PIC.

PIC is given great status by the declaration, being mandated whenever actions that pose an impact on IPLCs are considered. Whereas the principle permeates the whole document, Articles 11, 19, and 28 have direct correlation to the CBD:

> Article 11
> (…)
> 2. States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs.
> (…)
> Article 19
> States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measures that may affect them.
> (…)
> Article 28
> 1. Indigenous peoples have the right to redress, by means that can include restitution or, when this is not possible, just, fair and equitable compensation, for the lands, territories and resources which they have traditionally owned or otherwise occupied or used, and which have been confiscated, taken, occupied, used or damaged without their free, prior and informed consent.

When the declaration uses terms such as “intellectual property” and “resources,” it includes access to biodiversity in its provisions since biodiversity and traditional knowledge fit in the categories highlighted. Given the provisions of UNDRIP, PIC must already be applied to access that relates to IPLCs even before CBD provisions are applied.

Once again, it must be argued that the lack of recognition of PIC as a principle by the CBD would in practice be illogical as the institute already permeates the UN system, in which the CBD is included. There would be scant justification for the CBD to deny PIC the status of a principle when it is not only already treated as such by the convention but is also already included in the UN's most important document regarding IPLCs.

Moreover, PIC is recognized by involved stakeholders as a necessity to assure IPLCs' rights, self-determination, and endurance (Doyle, 2019), reinforcing it as a fundamental principle to be adopted. Likewise, the UN system further encompasses international courts and subsidiary bodies, which also include PIC as a fundamental mechanism for matters concerning IPLCs.

Regarding international courts, one can identify consent in sentences that good faith consultations with IPLCs are required whenever analysis or profiteering of resources located within their lands may affect IPLCs' way of living and holdings. The courts find that PIC is more than a simple bureaucratic process: the practice of PIC on matters regarding IPLCs is an instrument to assure their own self-determination (Ward, 2011).

The Inter-American Human Rights system has followed in the international courts' footsteps, establishing parameters to ensure PIC is applied and IPLCs' rights are safeguarded. The first parameter arose from the Awas Tingni case, in which it was defined that it is the obligation of parties to specify, demarcate, and grant IPLCs lands and territories. The second parameter obliges parties to always apply PIC whenever the status of IPLCs' land is changed or targeted. Lastly, the third emanates from the Saramaka case, asserting that IPLCs have a right to consultation and to PIC as development projects are projected to affect or influence their territories (Ward, 2011).

The Inter-American Human Rights system is the foremost proponent and developer of directives regarding PIC given that most of the continent's nations signed

the ILO Convention 169, which is a strong proponent of the utilization of PIC as a principle from within the UN's judicial system.

Finally, the UN's subsidiary bodies are also in alignment with international courts, extracting from all of the UN conventions and documents in this paper an obligation to consult IPLCs whenever a ruling regarding their territory and riches are concerned. This materializes with greater force via the Committee on the Elimination of Racial Discrimination (CERD) and the Committee on Social, Economic and Cultural Rights (CESCR), two committees that have repeatedly compelled parties to uphold PIC to assure that consent has been granted. The committees' reasoning differs from that of the courts, relying much more on IPLCs' rights to culture and to nondiscrimination, another possible means of justification provided by the analysis of UN documents (Ward, 2011).

This is not only in regard to the upper bodies of the UN; the African Commission of Human Rights has also determined that parties must conduct appropriate research and impact assessment with results open to the public. They must also conduct PIC and include IPLCs in the decision-making process when development may harm their way of living (Ward, 2011). Indeed, PIC is at the present recognized by practically all legal entities and mechanisms dealing with IPLC's, recognizing it as a derivative from UNDRIP's Article 32 mentioned at the beginning of this section (Barelli, 2012).

The inclusion of PIC as a principle by the CBD within the UN context would not only confirm the applications of the principle already on course but would also provide the system as a whole with clear directives and a legal substrate that, up to this point, has been constructed mostly on precedents. This would assure legal certainty to IPLCs and grant businesses and parties clear directives on how to proceed with their own processes, avoiding unexpected legal battles and resources wasted on improper means of development and process creation.

The UN parties have also begun addressing PIC, taking the UN's framework into account. One such nation is India, which has prosecuted mining projects that have impacted IPLCs without PIC, incorporating the principle under their jurisdiction (Ward, 2011).

To analyze if PIC can be considered a customary principle within the international community, it is necessary to verify if it is sustained by the constant and uniform practice of states in such a way that legitimate expectation of similar conduct can be drawn out by other actors. Given this definition, it can be verified that a minimal consensus is found within the international community that IPLCs must be given a right to consultation in good faith (Ward, 2011).

PIC is applied by the international community as it is perceived from UN documents. Therefore, a clear message from the CBD to recognize PIC as a principle would not only reinforce it but also ensure its incorporation by national legislations, thus increasing the safety of IPLCs.

d) PIC discussion under the World Trade Organization

Not all international bodies have already concluded their analysis, discussion and negotiations on incorporating PIC and CBD decisions under their jurisdiction. The World Trade Organization (WTO) carries out periodical consultations to access if consent may be achieved on the matter of patentability of organisms, genetic materials and traditional knowledge under the TRIPS Agreement.

The 1995 TRIPS Agreement is an international agreement signed under the WTO's jurisdiction that represents a set of minimum standards all Member States must follow in regards to intellectual property. Biodiversity is mentioned on the TRIPS Agreement under article 27.3 (b), allowing member states to exclude living organisms and genetic material from their national patent systems. Article 27.3 (b) also allows

members to adopt a *sui generis* system to address biodiversity and demands the article revision four years after it entering into force.

Subsequent negotiations on the TRIPS Agreement article 27.3(b) came forth with the 2001 Doha rounds of negotiation and successive Doha Declaration, which demanded the TRIPS Council to examine the relationship between the Agreement and the CBD concerning *the protection of traditional knowledge and folklore* (World Trade Organization, 2001).

PIC is a current topic of discussion on the TRIPS Agreement however consent is yet to be achieved on the topic. Several member states have advocated for the WTO to adopt a *sui generis* system for the protection of biodiversity. The push for a *sui generis* system is most vocally advocated by parties from Latin America, Africa, India and Southeast Asia (apart from Singapore), who are opposed by parties that desire to use the Patent System, namely the US, Japan and Canada (Council for Trade-Related Aspects of Intellectual Property Rights, 2006).

Pro-PIC parties under the WTO propose biodiversity users must demonstrate adequate PIC was obtained in order for produce that utilize biodiversity to be traded between member states, while against PIC parties argue that adopting the proposed measure would pose heavy burdens on nations that haven't adopted the CBD System and PIC. For against PIC parties a general disclosure requirement that presented the source and origin of biodiversity and traditional knowledge used would be enough protection under the WTO (Council for Trade-Related Aspects of Intellectual Property Rights, 2006).

The position of against PIC parties may have had logic on the context of the TRIPS Agreement signature in 1995 where the CBD had just entered into force in 1992 and many countries were still on the process of adoption and implementation of the treaty. As of 2021 however the claim that PIC would impose considerable strain on nations during

international trade does not agree with the reality where every nation recognized by the UN apart from the US and the Holy See have signed the CBD.

Since the TRIPS Agreement only addresses international trade agreements all international trade deals currently in effect apart from the ones between the US and the Holy See already must provide proof of adequate PIC obtainment as demanded by the CBD. In other words, should the TRIPS Agreement adopt PIC under their ruling effectively no change to the parties' bureaucratic system would need to be made since nearly all trade deals already must respect PIC by force of the CBD.

The relation between the TRIPS Agreement and the CBD in regards to traditional knowledge and PIC however is still at a deadlock since 2011, when the last round of negotiation was attempted on the issue.

DOCTRINAL DEFENSE OF PIC

This work quotes several documents, papers, theses, and research studies across the globe by scholars, organizations' representatives, and researchers that elevate PIC as a principle. Nonetheless, it is important to once more consolidate several points put forward, organizing them and reinforcing the theoretical reasoning for PIC to be raised to the status of a principle.

To begin, Fontana and Grugel (2016) have restated the origins of PIC as human rights legislation, granting grassroots engagement of IPLCs on matters that concern them directly. More than that, they have defended PIC as a tool to improve several facets of society, namely, better biodiversity and resources management, increased local participation, and populations' more effective use of their citizenship.

This is a major part of PIC often overlooked. In addition to its important intent of assuring IPLC rights, PIC also expects and demands IPLCs to understand the public discourse and politic scenario into which they are inserted so that a decision can be made.

The process of decision-making carries with it an inherit exercise of citizenship that can be used to strengthen democracies. At the same time, it may constitute a barrier to the application of PIC in nations where democratic values are not of interest to the ruling class.

Tamang (2005) has described the international law scenario concerning PIC as mandatory for nations and private entrepreneurs every time IPLCs' culture, history, traditional knowledge, lands, territories, natural resources, genetic resources, climate, environment, arts and artifacts, or historical and sacred sites are under risk of being changed by development projects. The author has also highlighted that should PIC become a principle, it would give policymakers and stakeholders technical guidance and uniformity within the international scenario.

Uniformity is also important in the private sector, providing legal certainty and clear, preestablished rules regarding biodiversity access and development involving IPLCs. This mandatory application of PIC is also reinforced by Bodeker, Kronenberg, and Burford (2007), linking it to the appropriate compensation and just and equitable benefit-sharing with IPLCs.

In *An overview of the principle of free, prior and informed consent and indigenous peoples in international and domestic law and practices* (2005), Tamang cites six components of the principle of PIC that provide it with clear boundaries for policymakers to work with. Firstly, (i) since PIC is needed to proceed with biodiversity accesses and resources possessed by IPLCs or within their lands, the principle carries the acknowledgement that IPLCs are entitled to their territories and natural resources, preceding any other right in the area. As such, (ii) PIC is an instrument for IPLCs to put into practice their right to self-determination and making it so (iii) that PIC must be viewed as part of the UN's international human rights network and (iv) applied with the

human rights approach in mind. (v) For PIC to achieve its goal, IPLCs' participation must be assured as processes of consultation are designed to fully respect the principle. It is also (vi) imperative to understand PIC as an evolving and adaptive principle that can be applied in different contexts.

Recognizing the mandatory nature of PIC, such approaches from scholars make it easier for parties to incorporate it within their own contexts. The many aspects of PIC must also be highlighted as it indicates IPLCs' original rights to their lands, their human rights, and their self-determination. This assertion is echoed in several other works (e.g., Doyle, 2019; Ward 2011; Barelli 2012; etc.). Therefore, the adoption of PIC as a principle would bring safety and assurance to IPLCs also from the institutions that PIC relies on for correct application.

Moreover, as a class representative institution that sets guidelines on how professionals of a particular field should conduct their activities, the International Society of Ethnobiology has also recognized PIC as a fundamental principle of the profession, inserting it into its code of ethics (2006). According to the code, PIC should be applied in advance to any research and activities that involve IPLCs. The Society goes as far as reinforcing that PIC must be repeatedly collected as activities are carried out to ensure understanding from all parties participate in these actions.

The acknowledgement of PIC as a principle by a class organization that works directly with biodiversity access signals a major shift in the profession worldwide. Since 2006, it has become mandatory that every worker and researcher under the Society's scope knows how to apply PIC in their day-to-day activities. This also incorporates PIC into most research done on biodiversity and genetic material related to botanic works in private sectors. The CBD's adoption of PIC as a principle would also assure the coherence of the treaty with field researchers, making it easier for assessment of PIC application

since documents presented from class entities could also be transposed into the Nagoya Protocol's Clearing House with no major adaptations of language or meaning.

PIC is also an important tool for recognition of the nature of IPLCs' traditional knowledge creation. As Santilli (2005) has stated, traditional knowledge is created from a fragmented, diffuse environment viscerally linked to IPLCs' cultural collective context. When PIC is carried out, it probes for the consent of an entire community instead of a single individual, acknowledging the knowledge as prevenient from the whole group and validating their culture.

Thus, CBD must also account for the cultural significance of delivering PIC as a principle since it is also a means of validating IPLCs' cultures and ways of living. As such, it is a necessary instrument to recognize their integrity as a community.

Another benefit of adopting PIC as a principle is as an institutional answer by the CBD that reinforces the idea that no form of coercion, misinformation, and violence will be accepted in regard to biodiversity access (Bensusan & Lima, 2005). With this, the CBD once more reassures IPLCs that their safety and integrity, both physical and cultural, are a priority in correcting biodiversity access. This will trickle down to lower strata of international legislation, as previous rulings regarding PIC already have, thus providing clearer messages of protection of IPLCs' rights and PIC application.

Another strong point for declaring PIC as a principle in doctrine is assuring that biodiversity access is appropriately granted, bridging the gap between commodification of biodiversity and resources under IPLCs' possession and their complete disconnection to international markets and research (Schroeder, 2010). Similarly, Laird (2002) has argued a need for reducing gray zones in biodiversity access, and Barbieri (2014) has detailed how biopiracy is still ever-present in international biodiversity relations due to a lack of tracking and the exploitation of loopholes.

Incorporating PIC as a principle in the most important international biodiversity treaty (the CBD) would also mandate it in parties' international private law, not only as a commitment to a treaty but also to incorporate IPLCs' specific needs, similar to the *sui generis* system proposed by Mgbeoji (2006) on which the patent system would be adapted to IPLCs' needs.

Currently, parties subscribe to the application of PIC via CBD as an instrument of enforcement of the treaty. With PIC recognized as a principle, the aforementioned parties would be obliged to do the same given the binding characteristics of the treaty (Kamau, Fedder, & Winter, 2010). This means that parties would have to change their legal systems not only to accommodate international biodiversity access law legislation but also the principle of PIC, increasing the reach and effectiveness of the CBD determinations.

The private sector would also benefit from the establishment of PIC as a principle with clear directives. For instance, the adoption may speed up the process of authorization to biodiversity access and development projects as well as reducing risks of judicialization and repeated rule changes once the interpretation of the principle is solidified.

Tracking and monitoring are fundamental parts of the Nagoya Protocol, with scholars such as Nijar (2011) claiming that the enforcement of the protocol is necessary for the smooth continuation of industrial applications of genetic resources and traditional knowledge. Similarly, the adoption of PIC by the CBD would also help the Nagoya Protocol's implementation, which has become much more necessary with the global pandemic due to the monitoring of key bacteria and viruses that my cause future episodes.

From the information in this chapter, it is clear that PIC is defended by doctrines as a principle on many fronts and lines of reasoning. These include IPLCs' rights to self-

determination and the greater exercise of citizenship and democracy that PIC brings. It also entails the legal certainty and wider implementation of the CBD that adopting PIC as a principle would necessitate, along with an increase in the accomplishment of CBD goals due to the trickle-down effect of professions adopting PIC within their work ethics. Moreover, this would lead to a reduction in loophole exploitation and biopiracy via increased tracking and better permeation of CBD dispositions with the adaptation of parties' legal systems to the principle as a whole and not only to those dispositions regarding biodiversity access.

The adoption of PIC as a principle defended by doctrine would further provide benefits to the CBD, IPLCs, the UN and its parties, and the private sector. Its standardization and enforcement of rulings would enable better relations and safer transactions concerning biodiversity and its affiliated resources.

DISCUSSION

The findings presented in this thesis point to a preeminence of PIC in all the documents analyzed. Data on the CBD (as illustrated in chapter 1) shows that PIC appears in the structuring of documents with mandatory biases or requirements to be abided. Once PIC was introduced in negotiations, it was included across multiple negotiation rounds and in the final versions with little to no alterations. The CBD has even created whole documents and working groups to address PIC and its auxiliary institutions.

From all the interactions shown, PIC is treated with utmost respect and caution by the CBD as if it were a principle whenever negotiations address it. In fact, the CBD's subsidiary bodies also include PIC in all provisions regarding biodiversity access and possession by parties and IPLCs, with Working Group 8(j) having produced the Akwé: Kon Guidelines on how to conduct appropriate PIC with IPLCs. Thus, PIC is treated not only as a provision of the CBD and its protocols but as a concept to be respected and included whenever appropriate. This makes it evident that PIC should be recognized as a principle by the CBD to align all of the PIC initiatives that have been adopted by the convention as well as to standardize the treatment of PIC across the CBD and to enforce its use on all of the Convention's rulings.

Since the CBD already treats PIC as a *de facto* principle, the recognition would eliminate gray zones regarding its nature and the need for CBD members to follow it. Adopting PIC as a principle would thus assure cohesion on both the international stage and within the CBD, at the very least ensuring favorable PIC interpretation in all articles.

Indeed, the documents in chapter 2 present the adoption of PIC by several international organizations, chief among them the UN. It is clear in these documents that compliance to PIC is expected by nations and private-sector actors, with enforcement by international courts of both dispositions of international treaties and inferred obligations

drawn from the interpretation of these documents. The adoption of PIC as a principle would provide the world's institutions with clearer boundaries, limiting and solidifying interpretations and standardizing a set of rules to be followed by nations and private actors in their day-to-day businesses.

Table 1 below also enrolls all institutions mentioned by this work and their treatment of PIC as well as the sphere of influence engulfed by them.

Table 1

Treatment of PIC by institutions worldwide

Institution	Treatment of PIC	Sphere of Influence
African Comission of Human and People's Rights	The African Comission of Human and People's Rights expects its parties to carry out public and appropriate research and impact assessment as well as to conduct PIC with the inclusion of IPLCs in the decision-making process when a given project risks altering IPLC's culture or way of life.	54 member states
African Union (AU)	The AU's *Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources* inserts PIC as a mandatory step in all Biodiversity dealings, representing grounds for revocation of access to users who fail to comply with the legislation's determinations.	54 member states
Convention on Biodiversity (CBD)	Officially PIC is an Institution of the Convention, most prominently quoted on Article 8 (j). Data shows that once PIC	196 parties

	enters CBD documents under negotiation it has always remained on the final approved text.	
Inter-American Court of Human Rights	On the Awas Tingni case the Inter-American Court of Human Rights decided that nations must always apply PIC whenever the status of IPLCs' land is changed or targeted. Likewise, on the Saramaka case the court assured IPLCs right to consultation and to PIC whenever development projects may affect or influence their territories	North, Central and South America and the Caribbean
International Labor Organization (ILO)	1989's Convention 169 demands PIC to be carried out every time IPLC's culture and/or way of life may be threatened by a State's project or decision.	187 member states
International Society of Ethnobiology	PIC is recognized as a fundamental principle by the International Society of Ethnobiology's code of ethics, demanding PIC's application ahead of and during research and activities involving IPLCs.	Professionals who deal with Biodiversity worldwide
United Nations	The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) makes PIC obligatory to the use of IPLC's resources and intellectual property – biodiversity uses included. Additionally, the UN's Committees on the Elimination of Racial Discrimination (CERD) and on Social, Economic and Cultural Rights (CESCR) demand PIC to be obtained in order to preserve IPLCs' rights to culture and to nondiscrimination.	193 member states

World Bank/ International Finance Corporation	Under the International Finance Corporation's Performance Standard no. 7 PIC must be carried as a collateral for the credit analysis of projects that deal or may impact on IPLC's culture or way of life.	189 member states
World Trade Organization	The 1995 TRIPS Agreement on intellectual property and the 2001 Doha Declaration demands the WTO to analyze the relation between the Agreement and the CBD concerning living organisms, genetic material and traditional knowledge. PIC is a topic of contention on the TRIPS Agreement discussion, however consent has yet to be found on the organization.	164 member states

This would also reduce conflicting rulings on the international stage since the CBD is not only the major authority on biodiversity access but also proposes to establish a tracking system that includes PIC compliance worldwide. As such, the CBD occupies a privileged position to inspect most PIC requests and influence the understanding thereof.

Finally, the doctrines presented in chapter 3 and throughout this thesis corroborate PIC as a principle, providing several lines of reasoning for why it should be recognized as one. Six different components were presented as supporting arguments for the adoption of the principle of PIC, ranging from assuring IPLCs' right to self-determination to strengthening citizenship and democracy via increased participation.

Multiple consistent lines of reasoning demonstrate that there are more than enough arguments and data to consider PIC as an international principle. Accounting for that, this thesis illustrates that the CBD must recognize PIC as a principle based on the perspectives of cohesion, standardization, and overall benefits.

Once again it must be highlighted that the elevation of PIC to the status of a principle will not assure the direct enforcement of PIC on international and local legislation, but shall demand its incorporation on new legislation as well as a revision on previous legislation's interpretation to further align them to the principle. PIC as a principle would therefore further shift worldwide legislation to incorporate the institution so that it could finally be applied on the local level.

CONCLUSION

The CBD's adoption of PIC as a principle is not a trivial or simple determination. It is a result of decades of work on international biodiversity law and IPLCs' rights. From the ILO's 169 Convention to the Nagoya Protocol, PIC is an institute that binds the goals set on the international stage regarding relations with IPLCs.

Although from a superficial analysis alone, one could assume that the elevation of PIC to the status of a principle would only benefit IPLCs, this work has shown the farther-reaching advantages. International bodies would gain better permeability of their treaties, parties would see a decrease in biopiracy due to greater tracking of genetic resources, there would be an increased exercise of citizenship and reinforced democratic values, and the private sector would have clearer rules and standards with more legal certainty and fewer rules changing due to new interpretations.

Of paramount importance is that IPLCs would benefit from PIC as a principle, strengthening their right to self-determination and access to information, assuring fair and equitable benefit-sharing, increasing their base political awareness, and also raising their cultural significance and overall resilience.

Although a principle may not be able to enforce the implementation of CBD rulings it directly influences the process of creating and negotiating new rules as well as guiding interpretation on previous rulings. The adoption of PIC as a principle would mean

that the UN and its Parties must adapt and review their legislation in order to ensure all of them are compatible with the principle.

All these results highlight that given the high state of integration of PIC with international legislation and doctrine it would be a much easier process to accept rather than deny PIC as a principle. Thus, despite the CBD's silence regarding the nature of PIC and its boundaries to this point, many other UN and non-UN bodies already recognize it as mandatory, drawing their own parameters. Likewise, international jurisprudence agrees that there is a substrate of essential elements of PIC that must be followed, extracting them from interpretation of the ILO's 169 Convention, the UNDRIP, and the CBD. The IFC has already inserted PIC as a necessary collateral for credit assessment, and the AU recognizes it as a fundamental principle, expecting its members to uphold it in their national legislation, as has been done by many countries throughout the world.

This work has demonstrated that while PIC is already taken as a principle by the majority of doctrines, as well as by many international organizations, it lacks a uniform interpretation and varies greatly depending on the specific institution. However, this thesis argues that all of the justifications are valid in their own context and could even be applied interchangeably.

There are limitations, however, to the review carried out on this thesis given it only proposes to analyze documents. Any further policy decisions concerning the adoption of PIC must take into account local specificities and to certificate the cohesion between international, regional and local regulations. Future research on this topic may also include scrutiny of PIC policy examples and their effects post implementation and to provide quantitative data to support the adoption of PIC by the CBD and its parties.

With the increased complexity of matters concerning IPLCs, it is natural that different perspectives could be employed in situations regarding PIC. This places the

CBD in an even more unique position to agglutinate all of the interpretations presented in this work and promote a greater interchange of ideas to better adapt the principle of PIC to assure IPLCs', CBD parties', and private-sector rights.

Finally, with the continued global pandemic and unique attention paid to the CBD as the monitoring body of biodiversity, it is certain that the CBD's next strategic plan will guide biodiversity and PIC policymaking for the next several decades. The research here presented serves as a contribution to the CBD's new strategic plan debate – particularly on the topic of adopting PIC as a principle. Within this context, it is expected that PIC will finally be recognized as a principle to the benefit of all the parties involved, even those that fiercely oppose it, promoting safer environments of living for IPLCs, better business environment to nations and businesses and greater democratic exercises to societies across the world.

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