NAGOYA PROTOCOL AND PRIVATE STANDARDS

A STUDY ON HOW VOLUNTARY SUSTAINABILITY STANDARDS INCLUDE ACCESS AND BENEFIT SHARING OBLIGATIONS IN THEIR CRITERIA AND ON THEIR POTENTIAL IN HELPING THE NAGOYA PROTOCOL'S IMPLEMENTATION

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LIST OF ABBREVIATIONS

ABS	Access and Benefit Sharing
ASC	Aquaculture Stewardship Council
CASQDS	computer assisted qualitative data analysis software
CBD	Convention on Biological Diversity
CCB	Climate, Community and Biodiversity Standard
FAO	Food and Agriculture Organization
FPIC	Free, Prior, Informed, Consent
FSC	Forest Stewardship Council
IRRC	Internationally Recognised Certification of Compliance
ISO	International Organization for Standardisation
ITC	International Trade Centre
NGO	Non-Governmental Organization
NP	Nagoya Protocol
PIC	Prior Informed Consent
RSB	Roundtable on Sustainable Biomaterials
RSPO	Roundtable on Sustainable Palm Oil
TBT	Agreement on Technical Barriers to Trade
UEBT	Union for Ethical Bio-trade
UN	United Nation
UNIDO	United Nations for Industrial Development
VSS	Voluntary Sustainability Standards
WTO	World Trade Organization

ABSTRACT

This thesis investigates the actual and potential relation between private standards and the Nagoya Protocol (NP), analysing how voluntary sustainability standards incorporate the NP's provisions in their criteria and which opportunities they offer to help the Protocol's implementation. At the beginning of the research, the NP's characteristic features are investigated, breaking down its Access and Benefit sharing obligations (ABS) and reporting the main defects detected by scholars. Then, private standards' theories are used to develop a theoretical framework to assess private standards' efficacy in relation to the NP's needs. To evaluate the current relation between the NP and private standards, a content analysis over a research sample of 31 voluntary sustainability standards is performed employing the software ATLAS.ti. The results show that the standards rarely consider the Nagoya Protocol in their criteria, with only 7 of them showing direct or indirect connections. Overall, however, the latent potential of private standards in relation to the Protocol is considered promising. The theoretical framework developed to assess private standards' efficacy, in light of the content analysis results, shows that voluntary sustainability standards could tackle several NP's criticisms. Assuming the perspective of involved stakeholders, the theoretically achievable improvements are presented. Collaboration between stakeholders (user and provider countries' public authorities; private standards creators; indigenous people; users) is identified as a key factor to reach the best results.

1. INTRODUCTION

1.1. BACKGROUND INFORMATION

The aim of this research is to investigate how the main private standards addressing sustainability issues include the Nagoya Protocol's Access and Benefit Sharing obligations in their criteria and what would be their potential in helping the Nagoya Protocol's implementation. In order to properly introduce the topic and the research questions, two short introductions on the international framework protecting biodiversity and on private standards are provided.

1.1.1. The Protection of Biodiversity

Among the hotly debated topics covered daily by the media, biodiversity loss seems to receive little attention.[1] However, the conservation of biodiversity is a key component of sustainable development, the *"development that meets the needs of the present without compromising the ability of future generations to meet their own need*s."[2]

The legal framework aiming at protecting biodiversity was created almost thirty years ago, in 1992, when the "Convention on Biological Diversity" (CBD) was signed by 196 countries in Rio de Janeiro. The Convention stresses three main objectives in its first article: "*conservation of biological diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the utilization of genetic resources"*.[3] The CBD clearly recognizes sovereign rights of States over their natural resources and the role of local communities.

[1] Pierre Legagneux and others, 'Our House Is Burning: Discrepancy In Climate Change Vs. Biodiversity Coverage In The Media As Compared To Scientific Literature' (2018) 5 Frontiers in Ecology and Evolution

[2] Harlem Brundtland, 'Our Common Future' (United Nations, 1987) <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf> accessed 18 January 2020.

[3] Convention on Biological Diversity, (adopted 5 June 1992, entered into force 23 December 1993) *1760 U.N.T.S. 69* (CBD) art 1

To better pursue the third objective of the CBD, in 2010 the "Nagoya Protocol (NP) on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization" was signed. The NP asks its Parties to adopt appropriate legislation on the utilization of genetic resources within their territories, protecting the rights of local communities and indigenous people who traditionally owned rights over those resources.

The NP has been presented as a major step towards the recognition of benefits to countries and populations often deprived of their rights. In addition, the new legal frameworks developed according to the NP would create clearer and faster procedures for potential users to access the genetic resources.[4] Even if many aspects and possible effects remained unclear at the time of its entering into force,[5] the NP was seen as a major improvement for sustainable development.

1.1.2. The Advent of Private standards

In the last fifty years huge efforts have been made to integrate global markets through multinational and bilateral agreements, custom unions and economic union. Despite the harmonization process of national standards and technical regulations taken forward by the World Trade Organization[6] (WTO), a new threat to market unification appeared, menacing the achieved results.

Since the 1990s, private multinational companies, who had always asked for less regulations to comply with, have begun to promote set of guidelines, code of conducts and specifications collectively named private standards.[7] Ironically, when countries were renouncing to some of

[4] Robbie Blackhall-Miles, 'Nagoya Protocol: Plant Hunters Need To Step Up To This New Challenge' <https://www.theguardian.com/lifeandstyle/gardening-blog/2015/jun/12/nagoya-protocol-plant-hunters-need-to-step-up-to-this-new-challenge> accessed 18 January 2020

[5] Margo A. Bagley and Arti K. Kai, *The Nagoya Protocol And Synthetic Biology Research: A Look At The Potential Impacts* (Duke University School of Law, 2013)

[6] 'WTO | Technical Barriers to Trade - Technical Information' (*Wto.org*, 2020) <https://www.wto.org/english/tratop_e/tbt_e/tbt_info_e.htm> accessed 18 January 2020

[7] Pascal Liu 'Private Standards in International Trade: Issues, Opportunities and Long-Term Prospects', *The evolving structure of world agricultural trade: implications for trade policy and trade agreements* (FAO Publisher, 2009)

their prerogatives to foster international trade, private actors started a process of autoregulation.

Several reasons leaded to the creation of private standards. First of all, the need to assure the safety and quality of products in a globalised world, with long and interconnected supply chains. In addition, an increasing number of consumers' demands such as the use of sustainable materials and the respect of human rights had to be answered. Primarily responsible for accomplishing these desires were big multinational companies and retailers, who directly interact with consumers. Therefore, the bigger supply chain actors started to set their own requirements for their suppliers, giving birth to private standards.[8] Furthermore, many non-governmental organizations (NGOs) trusted by the public have published their own standards, imposing even more obligations on companies willing to label their products with the NGOs logos.

The rise of private standards, as it was described, has also created many concerns, namely the lack of a democratic process behind them and the risk to cut off the market smaller actors and less developed countries, unable to comply with additional requirements.[9]

Despite some criticisms, private standards demonstrated their effectiveness in responding to consumers' demands, at the same time raising the companies' quality levels and helping them to comply with public regulation's requirements.

[8] Linda Fulponi, 'Private Voluntary Standards in The Food System: The Perspective Of Major Food Retailers In OECD Countries' (2006) 31 Food Policy

[9] Lawrence Busch, 'Quasi States: The Unexpected Rise of Private Standards', *Private Food Law* (Wageningen University Publisher, 2011)

1.2. RESEARCH QUESTIONS AND RELEVANCE

Despite the public nature of the NP, which is therefore deemed to be implemented through public legislation, this research argues that private standards could give a major contribution in spreading access and benefit sharing obligations (ABS)[10] and in reducing the negative unwanted effects the NP has caused, helping its implementation. Therefore, the main research question of this thesis is stated as follows:

> *"How do the main private standards addressing sustainability issues cover the access and benefit sharing obligations under the Nagoya Protocol and which is, according to private standards' theories, their potential in helping the Protocol's implementation?"*

Five sub-questions have been elaborated to facilitate the development and the organisation of the research:

- *Which are the central provisions and obligations of the Nagoya Protocol?*
- *Which are the main critiques moved against the Nagoya Protocol?*
- *Considering general private standards' theories, which are the major advantages and drawbacks derived from their utilization?*
- *How are access and benefit sharing obligations covered by private standards on sustainability?*
- *Which is the true potential of private standards in helping the implementation of the Nagoya Protocol?*

1.3. THESIS STRUCTURE AND GENERAL METHODOLOGY

The thesis is divided into six Chapters. In the Introduction, an overview of the objectives of the CBD and the NP has been given, together with a brief outline of the private standards'

[10] Louisa Parks and Elisa Morgera, 'The Need For An Interdisciplinary Approach To Norm Diffusion: The Case Of Fair And Equitable Benefit-Sharing' (2015) 24 Review of European, Comparative & International Environmental Law

current role in international markets and modern supply chains. Afterwards, the research questions have been presented.

Chapter 2 delineates the content of the NP, starting with its general features. Then, the scope of the Protocol and the main provisions on the access to genetic resources and related benefit sharing obligations are analysed. The concept of ABS has been divided in two different components, prior informed consent and benefit sharing, which are presented from an historical perspective and analysed extensively to detect their main features. Finally, the major arguments moved against the protocol from professionals and scholars in the field of genetic resources are reported. From a methodological point of view, in sub-chapter 2.1., a doctrinal legal research is conducted on the NP while in Sub-chapter 2.2 a literature review identifies the main NP's criticisms.

In Chapter 3, the definition of voluntary sustainability standards, private standards focused on sustainability issues, is given explaining their characteristics. Afterwards, the main objectives private standards usually help to achieve are clarified, as well as their possible negative effects. The theoretical framework elaborated in this chapter, based on classic private standards' literature, will be used to explore the opportunities offered by private standards to help the NP's implementation.

At the beginning of Chapter 4, an empirical content analysis is performed over a research sample of private standards. The selection process used to identify the final research sample is presented with all the essential explanations and justifications. Afterwards, the actual content analysis is described step by step using ATLAS.ti, a software for qualitative analysis. NP's key components underlined in Chapter 2 are used to determine the level of consideration the examined standards have of the NP.

In Chapter 5, the argument of how private standards could effectively solve some of the NP's needs is addressed. The critiques presented in the second chapter are related to the results of the empirical research and to the general private standards theory, applying the theoretical framework developed in Chapter 3.

Chapter 6 draws the conclusion of the research, summarizing the content of the thesis and identifying its main implications. Finally, recommendations for relevant stakeholders and inputs for future research are given.

2. THE NAGOYA PROTOCOL

In 2004, following the advice of the World Summit on Sustainable Development to supplement the CBD with further agreements, the CBD's Conference of the Parties created an Ad Hoc Working Group on Access and Benefit-sharing.[11] Already in 2000, the "Cartagena Protocol on Biosafety" had been opened for signing,[12] aiming to protect biodiversity from any possible threats arising from genetic engineering, while in 2002 the Bonn Guidelines[13] were released to offer guidance in implementing ABS obligations. However, more was needed. After years of troubled negotiations,[14] in 2010 the "Nagoya Protocol (NP) on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization" was signed to better pursue the third objective of the CBD. The long negotiations were due to the endless contrasts between developing and developed countries, which usually are respectively provider and user countries.[15]

In this chapter, the first two sub-question are addressed. First, the NP general features are discussed. Then, the scope and the ABS provisions of the protocol are identified and analysed. Finally, perplexities and critiques by scholars are reported and clustered.

2.1. NAGOYA PROTOCOL'S MAIN PROVISIONS

The NP aims at promoting fair practices on the access to genetic resources and on the sharing of benefits derived from their utilization. The Parties, countries signing the Protocol, are asked to take clear legislative, administrative and policy measures to define how genetic resources within their boundaries can be accessed.

[11] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization, CBD Decision X/1 (adopted 29 October 2010, entered into force 24 October 2014) Introduction

[12] Cartagena Protocol on Biosafety to the Convention on Biological Diversity, CBD Decision EM – I/3 (adopted 15 May 2000, entered into force 11 September 2003)

[13] Bonn Guidelines, CBD Decision VI/24 A (2002)

[14] Carmen Richerzhagen, 'The Nagoya Protocol: Fragmentation Or Consolidation?' (2014) 3 Resources

[15] Thomas Greiber and others, *An Explanatory Guide To The Nagoya Protocol On Access And Benefit-Sharing* (IUCN, 2012)

In practice, Parties are enabled to legislate on ABS giving users procedures to respect on two aspects, (1) access to genetic resources and (2) sharing of benefits deriving from genetic resources' utilization. Furthermore, the NP ensures that indigenous people and local communities who historically detain rights over certain genetic resources receive fair compensation by users.[16] Clear and mutually agreed terms have to be established between users and traditional owners of rights, based on the principle of prior and informed consent.[17]

Interestingly, the NP promotes the creation of checkpoints to monitor that requirements over access and benefit sharing are met, not only in the provider country but even in the legislation of user countries.[18] Parties are also asked to adopt measures to facilitate access for developing countries [19] and consider transboundary cooperation in case of genetic resources and local population spread in more than one country.[20] The importance of genetic resources for food security and to contrast illnesses shall not be forgotten and should be taken into account when adopting relevant measures.[21] Finally, Parties are required to establish a national focal point responsible to share information with users and at least one competent authority with the power to release written permissions to users.[22]

Particularly relevant for the scope of this research are articles 19, 20 and 21. Article 19 asks for the establishment of sectoral and cross sectoral contractual clauses, therefore calling for the creation of homogeneous frameworks. Article 20 instead is focused on standards:

> *"Each Party shall encourage, as appropriate, the development, update and use of voluntary codes of conduct, guidelines and best practices and/or standards in relation to access and benefit-sharing."*

[16] Nagoya Protocol (n 11) art 5
[17] Nagoya Protocol (n 11) art 6/7
[18] Nagoya Protocol (n 11) art 15(1)
[19] Nagoya Protocol (n 11) art 23
[20] Nagoya Protocol (n 11) art 11
[21] Nagoya Protocol (n 11) art 20
[22] Nagoya Protocol (n 11) art 13

In addition, Article 20 requires Parties to maintain an update collection of these standards.. Finally, Article 21 asks each Party to raise awareness among the affected stakeholders, particularly indigenous populations. Paragraph (e) solicits the creation of voluntary codes of conducts involving local stakeholders and affected indigenous people.

2.1.1. The Scope of the Nagoya Protocol

In Article 3, the scope of the NP is clearly stated: the NP covers any benefits derived from the utilization of genetic resources as considered in Article 15 of the CBD.[23] In addition, forms of traditional knowledge held by local communities and associated with genetics resources are also considered under the scope of the Protocol

Unfortunately, the NP does not specify what "genetic resources" means. The appropriate definition can be found in the CBD: "(Genetic resources) are *any genetic material with actual or potential value*".[24] The expression "genetic material" is also defined as "*any material of plant, animal, microbial or other origin containing functional units of heredity*".[25]

In contrast, the meaning of "utilization of genetic resources" is given in the NP itself as: "*conduct research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology*".[26]

In the NP's third preamble, sovereign rights of States over natural resources are reaffirmed,[27] as it was in the CBD.[28] Obviously, those rights are the basis which gives States sovereign rights over genetic resources: genetic resources are only one small component of the broader concept of natural resources. NP's limitation to genetic resources must be underlined. It will have a capital importance to understand whether private standards reflect the NP's obligations in their criteria during the content analysis.

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[23] Convention on Biological Diversity (n 3) art 15
[24] Convention on Biological Diversity (n 3) art 2
[25] Convention on Biological Diversity (n 3) art 2
[26] Nagoya Protocol (n 11) art 2
[27] Nagoya Protocol (n 11) Preambles
[28] Convention on Biological Diversity (n 3) art 3

2.1.2. Prior and Informed Consent

ABS obligations are the central provisions of the NP. The two ABS components, access to resources and benefit sharing, have to be examined separately in order to be properly understood. Firstly, genetic resources have to be accessed by potential users and, secondly, benefits arising from their utilization have to be equally shared with interested stakeholders.

Under Article 6, different steps are required to properly access genetic resources. On the one hand, users have to comply with public regulations of the Party having sovereign rights over them. Secondly, prior informed consent (PIC) from local communities is also required when they "*have the established right to grant access to such resources*".[29] Paraphrasing, on the one hand the national state recognized by the international community, which has sovereign rights over its natural resources, shall provide a clear path to get official authorizations before accessing genetic resources under its jurisdiction. On the other hand, after having obtained this permission from the national authorities, local communities and indigenous people with customary right over the accessed genetic resource shall also be consulted, to obtain their own prior informed consent.

Access to Genetic Resources and Traditional Knowledge	
First step	
Consent from the Relevant National Authority	Based on Relevant National Legislation
Second step	
PIC from Local Communities and Indigenous People	Based on Mutually Agreed Terms

Table 1 - Prior Informed Consent

The principle of Free, Prior, Informed, Consent is present in several international treaties. It is part of the "United Nations Declaration of the Rights of indigenous People"[30] but it was first

[29] Nagoya Protocol (n 11) art 6(2)

[30] Declaration of the Rights of indigenous People (adopted September 13, 2007 A/RES/61/295) (UNDRIP) art 10

introduced with the "Convention on Indigenous and Tribal Peoples" [31], in which only "consultation" and not "consent" was required. Of course, there is a huge difference between consulting and obtaining a consent. The table below, available on the Food and Agriculture Organization's (FAO) website, summarizes the meaning given to PIC by the FAO. The consent shall be granted by the community in its entirety, according to customary and traditional processes of decision making. Every essential piece of information to take a decision shall be fairly offered by users, within a sufficient amount of time and without manipulation's intents.

Meaning of Free, Prior, Informed Consent	
Free	*"The Consent is given voluntarily and without coercion, intimidation or manipulation. A process that is self-directed by the community from whom consent is being sought, unencumbered by coercion, expectations or timelines that are externally imposed."*
Prior	*"Consent is sought sufficiently in advance of any authorization or commencement of activities."*
Informed	*"Nature of the engagement and type of information that should be provided prior to seeking consent and also as part of the ongoing consent process."*
Consent	*"Collective decision made by the right holders and reached through customary decision-making processes of the communities."*

Table 2 - Free Prior Informed Consent according to FAO[32]

[31] Indigenous and Tribal Peoples Convention (adopted 27 June 1989, entered into force 5 September 1991) ILO C169 art 16

[32] 'Free, Prior And Informed Consent | Indigenous Peoples | Food And Agriculture Organization Of The United Nations' (*Fao.org*, 2020) <http://www.fao.org/indigenous-peoples/our-pillars/fpic/en/> accessed 20 January 2020.

The NP only asks for "prior" and "informed" consent. The reason is probably that the concept of free is implicated, both in Article 6 and in Article 12, which require to consider customary laws and traditional processes of decision making, a consistent improvement compared to the CBD where they were excluded by the articles treating the access to genetic resources.[33]

One last aspect to be considered is that the NP asks for "*prior informed consent or approval and involvement (of indigenous and local communities)*".[34] A possible interpretation is that involvement and approval are a consequence of FPIC. Another one is that approval and involvement are basically a synonym of prior consent: involvement implies consent. This second explanation has however been considered not in compliance with the traditional interpretation of international law.[35] Involvement can follow PIC but not substitute it.

For the purpose of the content analysis that will be conducted in Chapter 4, the comprehension of what PIC means under the NP is crucial to understand whether a standard considers or not the Protocol's provisions in its formulation. Legislation enacted to implement the NP usually requires users to demonstrate due diligence regarding PIC before accessing genetic resources.[36] Standards eventually covering the NP should therefore include PIC among their main obligations.

2.1.3. Benefit Sharing Obligations

The second component of ABS is the obligation to share benefits derived from the utilization of genetic resources. Despite some indirect references in human rights law[37, 38] the concept of benefit sharing has been consistently developed in international biodiversity law.

[33] Convention on Biological Diversity (n 3) art8 (j)
[34] Nagoya Protocol (n 11) art 6 (2)
[35] 'Nagoya Protocol On Access And Benefit Sharing: Substantive And Procedural Injustices Relating To Indigenous Peoples' Human Rights', *Expert Mechanism on the Rights of Indigenous Peoples* (2011)
[36] Elisa Morgera, Matthias Buck and Elsa Tsioumani, *The 2010 Nagoya Protocol On Access And Benefit-Sharing In Perspective* (Nijhoff, 2012)
[37] Universal Declaration of Human Rights (adopted 10 December 1948 UNGA Res 217 A(III) (UDHR) art 27
[38] Declaration on the Right to Development (adopted 4 December 1986, A/RES/41/128) art 2

Elisa Morgera[39] in her article "*The Need for An International Legal Concept of Fair and Equitable Benefit Sharing*" describes the concept of "benefit sharing" as being composed of five specific aspects, all of them worthy of careful examination:

- **Act of "Sharing":** either on the international stage or in a private relation between a user and a local community, the act of sharing embodies the idea of an iterative process, not an instantaneous moment which is decided in the blink of an eye. Benefit sharing as meant in NP shall be seen as an ongoing collaboration. The creation of checkpoint to monitor the process is a clear exemplification of this iterative vision of ABS obligations.
- **Nature of the "Shared":** what shall be "shared" is another debated issue. The nature of the "shared" shall be established under mutually agreed terms, in the interest of the providers and respecting the idea of "culturally appropriate" when local communities are involved. Despite leaving to Parties the decision on the norms to adopt, NP provides a non-exhaustive list of possible monetary and non-monetary benefits.[40]
- **Activities which Triggers the "Sharing":** in the case of the NP, genetic resources. Once again, it is important to point out how NP covers also the associated knowledges held by local communities, but not natural resources in general.
- **Beneficiaries:** the provider Parties and any relevant local community. It is worthy of consideration the condition of other possible beneficiaries such as indigenous people in other States' territories and non-traditional community. While the formers are explicitly nominated in the NP[41], the latter are not usually considered in international treaties. Not necessarily a local community is also traditional, there are many cases of recently established communities which do rely on genetic and natural resources in non- traditional ways, such as the Cablocos in Brazil. The process of self-definition of

[39] Elisa Morgera, 'The Need For An International Legal Concept Of Fair And Equitable Benefit Sharing' (2016) 27 European Journal of International Law
[40] Nagoya Protocol (n 11)) Annex
[41] Nagoya Protocol (n 11) art 11

a community should be the discriminant to guarantee that even "non-traditional" minorities are protected. [42]

- **Fairness and Equity:** benefit sharing is usually accompanied by the adjectives "fair" and "equitable". Unfortunately, defining precisely what "fair and equitable" mean is not easy at all. On the one hand, fairness clearly refers to the respect of precise frameworks, while equity introduces ethical elements. Morgera notes that any interpretation is likely to be challenged and suggests to look at human rights law, which consider fair as "*procedurally right*" and equal as "*non-discriminative and proportionate*".

Benefit sharing obligations require to respect national legislation requirements and to engage with local communities and indigenous people. Users have to share benefits with both countries' national authorities and affected indigenous people and local communities. However, supposedly, they shall do it in different ways. While benefits sharing at inter-state level usually consist of money payment but also transfer of technology and involvement in research, indigenous people should receive culturally appropriate compensation. [43] In practice, they usually receive economic payments, without consideration for other equally important aspects for local communities.[44]

Examples of non-monetary benefits are involvement of the community, construction of hospitals, food aids and job opportunities. Explicit request of benefit sharing other than simple economic compensation is an important aspect to identify direct or indirect relation between the NP and a private standard.

[42] Secretariat of the Permanent Forum on Indigenous Issues for the Expert Workshop on the Dissaggregation of Data, 'Who Are Local Communities?' (2006) <https://www.cbd.int/doc/meetings/tk/wscblac 01/information/wscblac-01-inf-05-en.pdf> accessed 20 January 2020

[43] Case of the Kichwa Indigenous People of Sarayaku v Ecuador [2012] IACTHR series c no 245

[44] Adrain Martin, Anne M Akol and Jon Phillips, 'Just Conservation? On The Fairness Of Sharing Benefits', *The Justices and Injustices of Ecosystem Services* (1st edn, Taylor and Francis 2013) <https://doi.org/10.4324/9780203395288> accessed 20 January 2020

Benefit Sharing		
First Step		
Sharing of Benefits with National governments	Based on Relevant National Legislation	Benefits as Established by Law
Second Step		
Sharing of Benefits with Local Communities and Indigenous People	Based on Mutually Agreed Terms	Culturally Appropriate Benefits

Table 3 - Benefit Sharing Obligations

2.2. THE NAGOYA PROTOCOL CRITICISMS: A COUNTER PRODUCTIVE TOOL?

The NP has been presented as a major step towards the recognition of rights for many developing countries and for indigenous people. However, it has also received several critiques. First of all, the NP has created another layer of bureaucracy to comply with. Therefore, researches have been slowed down. Moreover, many provisions of the Protocol have been described as vague and unclear. Finally, many countries have showed difficulties in implementing the protocol.

2.2.1. New Layer of Bureaucracy

Bruce Manheim, legal advisor for Mars Inc., has recently expressed his concerns in an article titled the "*Quid pro Quo Failing Biodiversity and the Discovery of New Products*".[45] He explains that, in principle, the idea of sharing benefits derived from the access to genetic resources is a win-win situation, leading to the lawful recognition of benefits to resources' owners and providing users with clear procedures to comply. In practice however, the process is all but smooth and simple. Potential users have to invest time and money to comprehend different legislation across the globe. The NP aimed at creating a transparent legal system, but in

[45] Bruce Sr Manheim, 'The Quid Pro Quo Failing Biodiversity And The Discovery Of New Products' (2019) 69 BioScience

practice there is a number of incoherent national legislations. When traditional communities are involved is even worse, with long negotiations needed to reach the required mutually agreed terms.

2.2.2. Slowing Down of Research

Another aspect contributing to the NP's bad reputation among users is the simplification it does about researches in genetics. The assumption at the base of Nagoya is that one genetic resource is used in one laboratory to create a specific number of commercially appealing products. The problem is that, for a single product, hundreds of genetic resources are used, in different combinations and locations. Requiring permissions for every single substance is virtually impossible.[46]

Not surprisingly, companies have therefore slowed down their research programmes: the costs to comply with several national legislations are really high, not to mention how complicate is to demonstrate that every requirement in the legislation of provider countries has been met.

The same is valid for academic research: despite the NP's request to establish particular conditions when issues such as biodiversity protection, food security and vaccines are at stake,[47] scholars are still required to comply with ABS provisions and Nagoya obligations, even when, for instance, genetic materials are sent to other countries for international collaboration.[48] In light of all these aspects, contracts over genetic resources have to be carefully drafted to avoid liability issues.[49]

[46] Myrna E. Watanabe, 'The Nagoya Protocol: Big Steps, New Problems' (2017) 67 BioScience
[47] Sascha Knauf, Lena Abel and Luisa K Hallmaier-Wacker, 'The Nagoya Protocol And Research On Emerging Infectious Diseases' (2019) 97 Bulletin of the World Health Organization
[48] Elisa Morgera, 'Fair And Equitable Benefit-Sharing At The Cross-Roads Of The Human Right To Science And International Biodiversity Law' (2015) 4 Laws
[49] Watanabe (n 46)

2.2.3. Incompleteness and Unclarity

The third main criticism moved against the NP is that is far from being a definitive solution because of its incompleteness and unclarity.

Wallbott, Wolff and Pożarowska[50] underline how ambiguous many formulations are in the NP's articles, particularly regarding its geographical, temporal and economic scope. First of all, in their opinion, it is unclear whether the NP encompasses also territories outside national jurisdictions such as the high seas. Secondly, despite the attempts of providers countries,[51] the NP is not retroactive and therefore does not cover genetic resources stored in user countries' gene banks accessed before 2014, the year the NP entered into force. This leads to another significant question: the benefits sharing obligations should be applied at the moment of the access or after the concrete utilization? On the one hand, the first interpretation is the more natural one but, on the other hand, the second one seems fairer. Similarly, there are doubts on the economic scope of the Protocol, namely if it includes biochemical compounds derived from the genetic material and synthetic intermediate products or only the original resource. No univocal answers have been given to all these questions.

2.2.4. Lack of Implementation

In 2018, only 54% (105 countries) of the Parties had ratified the NP and among them, only 71% adopted public measures to implement NP.[52] These difficulties are of course greater for developing countries, which are usually provider countries, because of their scarce economic resources. User countries could help considering that, according to Article 15 of the NP, they should take measures to ensure that genetic resources used within their jurisdiction have

[50] Linda Wallbott, Franziska Wolff and Justyna Pozarowska, 'The Negotiations Of The Nagoya Protocol: Issues, Coalitions, And Process', *Global Governance of Genetic Resources Access and Benefit Sharing after the Nagoya Protocol* (1st edn, Routledge 2013)
[51] Florian Rabitz, 'Biopiracy After The Nagoya Protocol: Problem Structure, Regime Design And Implementation Challenges' (2015) 9 Brazilian Political Science Review
[52] Convention on Biological Diversity Secretariat, '*Assessment and Review of the Effectiveness of the Nagoya Protocol*' (2018) <https://www.cbd.int/doc/c/7f9f/3d30/46a50d2e3f693bb57895d882/sbi-02-l-03-en.pdf>

been accessed fairly, respecting the provider country's legislation. Unfortunately, there is no instrument to oblige user countries to adopt similar measures, particularly when there are no rules in provider countries.

In one word, the NP has been described as born old, dealing with problems of the past century rather than the ones of the next. The increased bureaucracy, the inability to deal rapidly with modern challenges, the uncertainty of its provisions are all questions requiring answers.

3. GENERAL PRIVATE STANDARDS' THEORY

In Chapter 2, the main provisions of the NP have been underlined, as well as the most relevant criticisms that scholars and professionals have moved against it. In this section, a reflexion on the possibilities and limitations of private standards is presented, in order to assess their theoretical potential in helping the NP's implementation. Firstly, the definition of private standards addressing sustainability issues is provided. Afterwards, the main objectives that private standards are usually meant to achieve and their major criticisms are explained, creating an original theoretical framework to assess their potential in Chapter 5.

3.1. VOLUNTARY SUSTAINABILITY STANDARDS

There is no harmonized definition for private standards. On the website of the International Organization for Standardization (ISO), standards are defined as follows:

> *"A standard is a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context."*[53]

In simple words, they guidelines and/or requirements developed by several entities with very different forms and objectives aiming at improving performances in specific areas. Standards can be public or private, depending on the entities developing them. Of course, private standards are created by private organizations, for example NGOs or companies.

According to the website of the United Nations for Industrial Development (UNIDO), private standards can be further divided depending on the private entities developing them. There are consortia standards promoted by businesses to define common rules and practices, civil society standards designed by NGOs and similar institutions with social, environmental and

[53] Consumers and Standards: Partnership For A Better World' (*Iso.org*, 2020) <https://www.iso.org/sites/ConsumersStandards/1_standards.html#section1_1> accessed 20 January 2020

cultural objectives and company-specific standards, created by single companies but potentially applied to other business partners.[54]

All private standards have in common their voluntary nature: companies and individuals are not obliged by law to comply. This is also the core distinction between technical regulations and standards in the "Agreement on Technical Barriers to Trade (TBT), promoted by WTO to avoid unnecessary obstacles to free trade based on technical specifications":

> *"(Technical Regulation are) Documents which lay down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method."*
>
> *"(Standards are) Documents approved by a recognized body, that provide, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method."* [55]

Usually, private standards address issues such as food safety and food quality, labour conditions and environmental protection.[56] The ones specifically targeting sustainability aspects are usually defined by scholars as Voluntary Sustainability Standards (VSS). The following definitions, available on the website of the United Nations Forum on Sustainability Standards, is adopted for the scope of this thesis:

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[54] 'Private Standards | UNIDO' (*Unido.org*, 2020) <https://www.unido.org/our-focus/advancing-economic-competitiveness/meeting-standards/private-standards> accessed 20 January 2020
[55] Agreement on Technical Barriers to Trade (1 January 1995) LT/UR/A-1A/10 <https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm >
[56] Axel Marx, *Private Standards And Global Governance* (Edward Elgar 2012)

"Voluntary Sustainability Standards are rules that producers, traders, manufacturers, retailers or service providers may be asked to follow so that the things they make, grow or do don't hurt people and the environment. These standards help keep workers healthy and safe, protect communities and land, and uphold human rights, as well as moderating the environmental impacts of production and consumption."[57]

3.2. A THEORETICAL FRAMEWORK TO EVALUATE PRIVATE STANDARD

Private standards are created to achieve several objectives and answer requirements of businesses, consumers and national legislation. Consequently, when developed by big companies and business, they set specific quality targets that weaker actors of the supply chain usually have to respect. In this sense, private standards can be seen as the most immediate effects of the rise of market-states, where markets and no more public states establish the rules and maintain the control.[58] To coherently evaluate their potential in helping the implementation of the NP an original theoretical framework has been developed, presenting the main objectives that VSS are usually meant to achieve, as well as the major issues resulting from their implementation.

3.2.1. Reasons to Create and Employ Private Standards

The following list has been expressively developed for this research, based on the works of authors such as Bernstein (1992), Henson (2006) or Van Der Meulen (2014), and identifies the main purposes that private standards usually serve.

- **Maintenance of High Quality and Safety Levels:** choosing to comply with an existing standard (or creating new ones) gives professionals and employees clear indications

[57] 'What Are Voluntary Sustainability Standards (VSS)?' (*UNFSS*, 2020) <https://unfss.org/> accessed 20 January 2020.
[58] Dennis M Patterson and Ari Afilalo, *The New Global Trading Order* (Cambridge University Press, 2010).

on what to do and what to avoid, standardizing processes and maintaining high quality and safety levels in the production.[59]

- **Market Differentiation:** the presence of a third-party certified logo on labels is an important factor for differentiating products in modern markets, enhancing their value. Particularly for items which imply a knowledge gap between producers and consumers, evidences of good practices are needed. For example, Halal foods and cosmetics certified by religious authorities are labelled to attract targeted consumers.[60]
- **Compliance with Public Regulation:** a common trend of modern regulation is to set objectives and leave companies and actors the burden of finding ways to comply. Private standards could be seen as "ready-to-use" guidelines, to comply with specific requirements and satisfy the due diligence principle.[61] For example, in the European Union Regulation (EC) No 852/2004 specifically asks to demonstrate compliance with HACCP requirements and encourages the application of guidelines and voluntary standards to do that.[62]
- **Shifting of Liability:** actors in the supply chain have to rely upon the others, hoping they respect legal provisions. Requiring other actors to comply with a standard shift the liability upstream, enabling retaliation through means of contractual law if something happens. Henson and Humphrey explain this presenting the case of the UK, where retailers are strictly liable for food safety: requesting their suppliers to comply with BRC Global standard or GlobalGAP, they satisfy the due diligence principle in English law.[63]
- **Preempt the Legislator:** private law is created by private actors, which usually are faster than governments in intercepting new trends and prefer to avoid any

[59] Spencer Henson, 'The Role of Public and Private Standards In Regulating International Food Markets' (2006).

[60] Hussein Elasrag, 'Halal Industry: Key Challenges and Opportunities' (2016) SSRN Electronic Journal

[61] Bern van Der Meulen and Rozita Spirovska Vaskoska, *Private Food Law* (Wageningen Academic Publishers 2014)

[62] Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs (2004) OJ L139

[63] Spencer Henson and John Humphrey, 'Understanding The Complexities Of Private Standards In Global Agri-Food Chains As They Impact Developing Countries' (2010) 46 Journal of Development Studies

unnecessary involvement of external legislator. Already in the Nineties, Lisa Bernstein has noticed this in her studies on the diamond sector. She extensively explains how disputes in this sector are solved using internal rules and enforcement's systems, systematically rejecting interventions of public law.[64]

- **Bridge the Gap between Different Legal Systems:** compliance with international standards demonstrate that products are safe and meet specific requirements. Therefore, they can enter in other markets more easily. In this sense, WTO has always encouraged the development of recognized international standards involving as much parties as possible. This is true of course for public standards such as the Codex Alimentarius, but compliance with recognized private regulation is surely a valuable asset for companies willing to enter in a market.[65]
- **Supplement Law:** being faster in intercepting changes, the private sector sometimes implements in advance measures which eventually will be adopted by states, to be prepared or to obtain advantages at the eyes of the consumers.[66] At the same time, when public regulation fails to reach certain targets, private standards can supplement public legislation, raising quality and safety parameters. This is particularly true when public attention over certain topics is high, for example because of previous outbreaks in the case of food safety.[67]
- **Fill in void in Public Regulation:** sometimes governments are unable to enforce legislation, or they do not have legislation at all on specific topics. Private governance has then become more and more important to spread internationally recognized obligations and satisfy consumers' demands not adequately addressed in public legislation.[68]

[64] Lisa Bernstein, 'Opting Out Of The Legal System: Extralegal Contractual Relations In The Diamond Industry' (1992) 21 The Journal of Legal Studies
[65] Van der Meulen (n 61) p 88
[66] Van der Meulen (n 61) p 88
[67] Henson and Humphrey (n 63) p 6
[68] Graeme Auld, Stefan Renckens and Benjamin Cashore, 'Transnational Private Governance Between the Logics of Empowerment And Control' (2014) 9 Regulation & Governance

These points have been identified to prove private standards' efficacy in collaborating with public regulation and contributing to the overall well-being of the society. Together with the main criticisms associated with private standards, the object of the next sub-chapter, they define the theoretical framework used to evaluate private standards potential in Chapter 5.

3.2.2. Private Standards' Drawbacks

Despite the good reasons which leaded to their creation and the results they help to achieve, private standards have been widely criticized. As pointed out by Purnhagen, these criticisms can be split up in two main aspects: legitimacy and costs of compliance.[69]

Questions on legitimacy can be further divided in two different perspectives. On the one hand, many critiques have been moved against the power of private standards' setters. Private standards shape the final products that eventually reaches the consumers, while their creators are not democratically elected. The participation of different stakeholders in the standards' creation is usually seen as a positive factor to partially overcome legitimacy's issues.[70]

On the other hand, sometimes the legislator itself decide to specifically refer to private standards in public regulation. In her article "*Public Procurement and Private Standards: Ensuring Sustainability Under the WTO Agreement on Government Procurement*"[71] Corvaglia explores the use of private standards in public procurement law, explaining how public institutions ask compliance with specific standards to demonstrate commitment towards specific objectives (fair trade practices, environmental protection, working conditions), making them *de facto* mandatory. Incorporating private standards in public legislation could raise questions not only about legitimacy but on transparency as well. Governments risk to

[69] Kai P. Purnhagen, 'Mapping Private Regulation Classification, Market Access And Market Closure Policy, And Law's Response' (2014) SSRN Electronic Journal

[70] Doris Fuchs, Agni Kalfagianni and Tetty Havinga, 'Actors In Private Food Governance: The Legitimacy Of Retail Standards And Multistakeholder Initiatives With Civil Society Participation' (2009) 28 Agriculture and Human Values

[71] Maria Anna Corvaglia, 'Public Procurement And Private Standards: Ensuring Sustainability Under The WTO Agreement On Government Procurement' (2016) 19 Journal of International Economic Law

create unfair obstacles for certain actors, reducing competitions among suppliers and therefore violating competition law and international trade agreements.

When standards become *de facto* mandatory and market actors are obliged to comply to enter or remain in a market, costs of compliance can be hard to sustain, especially for smallest players. Every major retailer and multinational company have different requirements, not to mention the standards developed by NGOs, which ultimately give the possibility to differentiate the products on the market. The more VSS are required, the higher are the costs. Ironically, sometimes, differences between standards are only bureaucratic. To avoid this distortion, standards are more and more mutually recognising each other, giving the possibility to comply with one standard for all.[72]

The problem of costs is particularly sensitive for less developed countries, who have complained frequently within the WTO.[73] In their view, the long-standing efforts to liberalize trade could be harmed by the diffusion of private regulation. The critiques made by smaller countries in relation to standards have been sometimes contested because, according to scholars, private standards should be seen as a possibility to increase market shares.[74, 75] Anyway, for states and international organizations, the exclusion of private actors from areas where they used to have absolute legislative control seem more and more complicated.[76]

In Chapter 5, the theoretical framework made by VSS' advantages and criticisms will be used to evaluate the potential of private standards in relation to the NP. Beforehand, the current situation is analysed, conducting a content analysis over a selected research sample of VSS.

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[72] 'Recognition - A Food Safety Passport' (*Mygfsi.com*, 2020) <https://mygfsi.com/how-to-implement/recognition/> accessed 20 January 2020.
[73] Communication from Saint Vincent and the Grenadines. *Committee on Technical Barriers to Trade* (2007) WTO G/SPS/GEN/766.
[74] 'Private Standards: Mind The GAP' (*Jstor.org*, 2020) <https://www.jstor.org/stable/24343727?seq=1> accessed 20 January 2020.
[75] Sven Anders and Julie A. Caswell, 'Standards-As-Barriers Versus Standards-As-Catalysts: Assessing The Impact Of HACCP Implementation On U.S. Seafood Imports' (2007) SSRN Electronic Journal.
[76] Larry C. Backer, 'Private Actors And Public Governance Beyond The State: The Multinational Corporation, The Financial Stability Board, And The Global Governance Order' (2011) 18 Indiana Journal of Global Legal Studies

4. CONTENT ANALYSIS OF PRIVATE STANDARDS

Chapter 4 constitutes the core of the research and answers the question on how VSS cover the NP's principles and obligations. In the first sub-chapter the research sample is identified following a careful selection process and ATLAS.ti, the software employed in the content analysis, is presented. In the second section, the actual analysis is operated step by step. To conclude, the main results are reported and summarized.

4.1. DELIMITATION OF THE RESEARCH SAMPLE

4.1.1. Identifications of Relevant Standards

The instrument used to delimitate the research sample is the database "Standards Map" released by the International Trade Centre (ITC). The ITC[77] is a joint agency of the WTO and the United Nations Association, whose objectives are the expansion of international trade and the support of sustainable development. ITC created a platform called Sustainability Map[78], where Standards Map is available, offering supply chain's actors the possibility to find the VSS that better fit their needs.

To be included in the Standards Map, standards need to address at least one of the pillars of sustainable development (social, environmental or economic), have to present a published set of criteria and an implementation system. Standards Map database contains up to 257 standards. [79]

To reduce this huge set of standards to a most appropriate one, the search engine of the database has been refined using the "Advance Research" feature:

[77] 'How ITC Works' (*Intracen.org, n.d.*) <http://www.intracen.org/itc/about/how-itc-works/> accessed 20 January 2020
[78] 'Sustainability Map' (*Intracen.org*, n.d.) at <http://www.sustainability.org> accessed 20 January 2020
[79] 'Participating Standards' (*Intracen.org*, n.d.) <http://www.intracen.org/itc/market-data/standards-map/participating-standards/> accessed 20 January 2020

- Firstly, the following nine sectors were selected among the fifteen available: Agriculture, Consumer Products, Fish-aquaculture, Fish-Wild Capture, Forestry, Industrial Products, Livestock, Processed Food, Textiles.
- Secondly, only the "Private Standards" category was selected.

The reason to restrict the research only to the above-mentioned nine sectors is that the chosen ones are all related to genetic resources and consequently fall under the NP's scope. The other sectors in the list are based on inorganic natural resources, for example electronics or mining. The "Private standards" category was chosen to leave out "Public Standards" and "International Standards". A preliminary research sample of 164 standards addressing sustainability was identified.

4.1.2. Delimitation of the Final Research Sample

Several limitations have been detected delineating the preliminary research sample. In order to solve as much as possible these impediments, corrective measures were applied and justified.

First of all, despite being the Standards Map a remarkable initiative, there is no assurance that all VSS are actually included in the database (of course, the participation is voluntary). Another database, "Ecolabel Index",[80] was used to identify other sustainability standards and provide a control sample, increasing the number up to 214 standards. The complete list of all these standards is reported in Annex I.

In second place, sometimes standards present in Standards Map and Ecolabel index are not updated. Even if in theory these websites have activated a system of periodical reviews, unfortunately many of the them clearly specify that the last information date back to one, two or even three years ago. To address this issue, every standard was examined in the most

[80] 'All Ecolabels | Ecolabel Index' (*Ecolabelindex.com*, n.d.) <http://www.ecolabelindex.com/ecolabels/> accessed 20 January 2020

updated version available on the standard's websites. Only standards for which clear documents presenting the criteria were available or accessible were included in the final research sample.

Finally, the huge amounts of standards identified with Standards Map and Ecolabel Index needed to be reduced to a more manageable one. Consequently, the following selection process was developed based on the consideration given to specific topics by standards' creators:

> *"All the standards which did not mention in their published documents and criteria at least two of the following concepts and at least one between 'prior informed consent' or 'benefit sharing' were eliminated:*
> - *mention of the 'Convention of Biological Resources' or of 'the Nagoya Protocol'*
> - *mention of 'genetic resources'*
> - *mention of 'biodiversity' or 'biological diversity'*
> - *mention of 'local communities' and/or 'indigenous people'*
> - *mention of 'traditional knowledge'*
> - ***mention of 'prior informed consent' or at least consultation with communities***
> - ***mention of 'benefit sharing obligations' or at least negotiation of terms***"

References to the CBD and the NP generally points out the affiliation of the standards to a certain mindset. The mentions of "genetic resources", "biodiversity"," local communities" and "traditional knowledge" (or similar wording for these concepts) connect the standards to the scope of Nagoya Protocol. Finally, "prior informed consent" and "benefit sharing obligations", or at least the request for "consultation with communities" and "negotiations of terms", aim at relating the standards with the ABS obligations contained in NP.

In total, the final research sample identified for the content analysis is made of 31 standards, listed in Table 3. The complete selection process for these standards is reported in Annex I.

Final Research Sample			
4C - Code of Conduct of the Coffee Community	Donau Soya	Kenya Flower Council	Sustainable Farming Assurance Programme
ADM Responsible Soybean	Europe Soya	International Water Stewardship Council	Sustainable Feed Standard™
Amaggi Responsible Soy Standard	Fair for Life	ProTerra	Sustainably Grown
Aquaculture Stewardship Council: Pangasius	Fairtrade International - Hired Labour	Rainforest Alliance – Responsible Agriculture	Union for Ethical BioTrade
Aquaculture Stewardship Council: Salmon	Fairtrade International - Climate	Roundtable on Sustainable Biomaterials	U.S. Soybean Sustainability Assurance Protocol
Aquaculture Stewardship Council: Shrimps	FairWild	Round Table on Responsible Soy Production	UTZ - Code of Conduct
Bonsucro	For Life	Roundtable on Sustainable Palm	Veriflora - Cut Flowers and Potted Plants
Climate, Community & Biodiversity Standard	Forest Stewardship Council® - FSC® - Forest Management	Soil Association Standard	

Table 4 - Final Research Sample

4.2. ATLAS.TI

The content analysis is conducted using ATLAS.ti, a computer assisted qualitative data analysis software (CAQDAS). ATLAS.ti has been present on the market for more than twenty years, during which it has been employed in a number of areas and with a wide range of different media, such as text, videos or even modern social networks.[81]

ATLAS.ti gives users the possibility to organize the original sources in the so-called "primary documents", set of data such as books, interviews articles or standards' criteria. Every segment of data contained in the primary documents can be isolated becoming a "quotation", meant to be associated with "codes", tags to capture characteristic of that specific data segment. At a later stage, quotations and codes can be isolated and compared using the analysis' instruments offered by the software, to identify similarities and differences among the documents. [82] Worthy of mention are the "Word Cruncher", which counts how many times a word is present in a text, "Hyperlinks", to connect different codes or free quotations among documents, and the "Co-occurrence Explorer", which can create co-occurrence table showing when codes are present at the same time and in which documents. In addition, various tools to visually represent networks created by quotations and codes are available.[83]

4.2.1. Coding with ATLAS.ti

Two main types of codes exist, "a priori" and "ground based". The formers are established by the researcher before examining the materials, the latter are created step-by-step, following the inspiration and the perceptions given by the data set.[84]

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[81] 'What Is ATLAS.Ti | ATLAS.Ti' (*ATLAS.ti, n.d.*) <https://atlasti.com/product/what-is-atlas-ti/> accessed 20 January 2020.
[82] 'What Is ATLAS.Ti' (*Youtube.com*, 2019) <https://www.youtube.com/watch?v=Y0E0b1xLrJE> accessed 20 January 2020.
[83] Hanna Schebesta, 'Content Analysis Software In Legal Research: A Proof Of Concept Using ATLAS.Ti' (2018) 23 Tilburg Law Review
[84] Trena Paulus and Jessica Nina Lester, 'ATLAS.Ti For Conversation and Discourse Analysis Studies' (2015) 19 International Journal of Social Research Methodology.

Theoretically speaking, codes can also be divided according to their nature and to the characteristics of the quotations they tend to identify. For example, there are "attribute codes", focused on descriptive characteristics of the quotation (the year in which a document was published), "thematic codes", which identifies recurrent themes and elements in the data set (during interviews, how many times a certain topic is mentioned) or "magnitude codes" which points out the intensity of a variable (the level of income of interviewed people).[85]

The general coding procedure with ATLAS.ti consists of multiple rounds of coding. In general, a first scanning with a priori and ground based codes is conducted to reduce and categorize the data. Afterwards, other rounds follow using more specific codes which define even more precisely what a quotation is about. For instance, during an interview, a code identifying the political affiliation of the interviewed could be an a priori code during the first round, while the specification of the political party is a more specific code during the second one.[86] All codes are grouped in the so-called "codebook", which shall be maintained updated by the researchers, including any newly established code.

4.2.2. Critiques against ATLAS.ti

Despite its twenty years history, ATLAS.ti still raises many concerns. Paulus and Lester in the article "*ATLAS.ti For Conversation And Discourse Analysis Studies*" offer a complete overview of these criticisms. In particular, the temptation of using qualitative data as if they were quantitative, the complexity of the software and the increased distance between researcher and data set due to the coding of useless information. They reply to this issues stating that, first, many scholars underestimate the possibilities offered by CAQDAS, especially for a lack of knowledge of the software features, and second, they do not consider that human perception remains at the centre of the research, being supported in dealing with increasing numbers of data.[87]

[85] Schebesta (n 8383)
[86] Luis Antonio Vila Henningen, 'Turning into "Rationales": Using the Extended Case Method for the Coding and Analysis of Semi Structured Interview Data in ATLAS.ti' 143 Bulletin of Sociological Methodology
[87] Paulus and Lester (n 84)

The replacement of human sensibility with a software has also been the central objection raised by legal scholars. The image of brilliant attorneys reading thousands of documents to find one single evidence is difficult to eradicate. However, as pointed out by Schebesta,[88] ATLAS.ti doesn't aim at substituting the classic doctrinal methodology. Instead, it makes the research more scientific and replicable, increasing the methodological credibility. The increasing number of legal documents digitally available makes more and more difficult for human brains to keep truck of every single information. Software such as ATLAS.ti helps to manage the cognitive overload, organizing the sources with clear and replicable criteria and giving to everyone the possibility to replicate and continue previous researches. CAQDAS do not aim at substituting people, but at supporting them, enhancing the scientific validity of their research while still relying on the scholars' interpretative skills.[89]

4.3. NAGOYA PROTOCOL IN PRIVATE STANDARDS: CONTENT ANALYSIS

Two coding rounds were conducted to understand whether or not private standards include the NP's obligations in their criteria. The first one has been based on a set of a priori codes, to point out themes related to the NP and ABS obligations, isolating relevant quotations. Contemporarily, emerged ground based codes have been applied to the data set. During the second coding round, some of the first round's codes have been further organized in a second level of complexity, characterizing the quotations more specifically. Finally, relevant codes have been analysed using ATLAS.ti features. In Annex II, a summary of the quantitative results for each coding round is available.

4.3.1. First Round of Coding

A Priori Codes

The following a priori codes were developed to underline aspects which could be associated with the scope and the main obligations of the NP. Considering that the research sample has

[88] Schebesta (n 8383)
[89] Schebesta (n 8383)

been refined consistently after the selection process, the aim of the first coding round is to isolate all the quotations which have determined the presence of these documents in the final data set.

- **Consultation (with Local Communities/Stakeholders)**: aims at underlining any hints present in the standards' criteria which mandate consultation with communities and stakeholders before undertaking certain actions (depending from the scope of the standards).
- **Negotiations (with Local Communities/Stakeholder)**: references to negotiations of terms with local communities and stakeholders encompassing a wide range of possible forms of agreements and therefore compensations (depending from the scope of the standards).
- **Disputes over Rights**: this code refers to any mentions regarding disputes' resolutions and obtained rights with local communities and stakeholder. The rightful obtainment of rights and the absence of disputes are objectives of the NP.
- **Customary Rights (over Natural and Cultural Resources):** the scope of the NP include rights over genetic resources and traditional knowledge. This code is used to underline every reference to of customary rights in general, before coding them specifically in the second round.
- **Customary Law:** the important of traditional forms of decision making is capital for the NP.
- **Compliance with Relevant Legislation: National Law & International law:** the NP asks Parties to implement public regulations on ABS, therefore the respect of national laws shall be present in every standard to find connections with the Protocol. Moreover, the NP itself is an international treaty which standards with a global diffusion should consider among the others.
- **Sustainable Development**: being the research sample made of standards related to sustainability, sustainable development could be a recurrent theme worthy to be underlined for further analysis.

- **Biodiversity Protection:** the NP was created to implement specifically the third objective of the CBD, but biodiversity protection is recalled as a major objective both in the preambles and in its articles.
- **Wild Harvesting:** this code was developed based on a personal belief, namely that the most immediate image which inspired the NP's creation is the protection of indigenous people's knowledge on wild herbs with medical properties. Therefore, eventual references to wild herbs' harvesting and collection might be useful to reveal connections with the Protocol.
- **Genetic Resources Issues:** considering the scope of the protocol, every mention to genetic resources could reveal correlations with the NP. References to Genetically Modified Organism (GMOs) are not coded, because they would have jeopardized the results and they are not relevant for this research.

Summarizing, the first six codes meant to underline any quotations containing references to NP's provisions while the others identify themes that categorize the standards, revealing interesting aspects for further analysis.

Grounded Codes

During the first round of coding the following concepts emerged naturally and were included in the codebook. Some of them have been further considered in the final analysis, others have been left apart without being elaborated or used.

- **After NP or Before NP**: considering the date of last revision, standards published before or immediately after its creation are less likely to include obligations referable to the NP.
- **For Profit Company or NGOs:** being aware of the institutions owning the standards could reveal interesting trends. In the premises of this research, public standards developed by government were excluded but a further distinction is needed between

NGOs, organizations without economic goals, and companies aiming at profit, meant as single business, consortium or even autonomous creator of standards.

- **Aquaculture, Farming Practices or Different Actors in the Supply Chain:** the different activities to which standards apply clearly define their nature and categorize their obligations.
- **Impact (on Local Communities/Stakeholders):** during the coding round, a slightly difference emerged between quotations mentioning consultation/negotiation with local communities and references to generic impacts on stakeholder, so positive and negative effects that activities can have on stakeholder. For example, the ASC's standards ask to reduce the negative impacts on water sources for local communities, without requiring consultation/negotiation processes with them.
- **Traceability:** traceability of the used genetic materials is a consequence of the NP, useful to demonstrate compliance.
- **Label:** references to the use of labels in the standards criteria.
- **Size of Certified Business:** this information could indicate whether a standard is or is not a good instrument to implement the NP's provisions, considering the size of business to which is applicable. It is quite unlikely that small scale farmers play a role in the NP's implementation.
- **Third-party Certification:** mandatory inspections from third parties reveal the seriousness of the standard.
- **Non-Conformity Sanctions:** non-conformity sanctions in the standards are useful to reinforce the respect of the standards by certified actors.
- **Climate Change:** mentions of climate change mitigation or emissions' reduction could indicate that standards consider environmental legislation.

The first three ground based codes are focused on revealing useful information about the standards themselves, while the last ones are based on personal inspiration.

Results of the First Coding Round

The first round of coding confirmed that all the standards contain quotations characterized as **Consultation with Local Communities and Stakeholders** as well as **Customary Rights over Natural Resources**. A major part of them encloses also the code **Negotiations of Terms** (twenty-two standards), while **Disputes over Right** is mentioned in twenty-two documents (not the same as **Negotiations of Terms**). As expected, all standards require compliance with applicable **National and International law**, revealing how VSS reflect the legal environment in which they are developed.

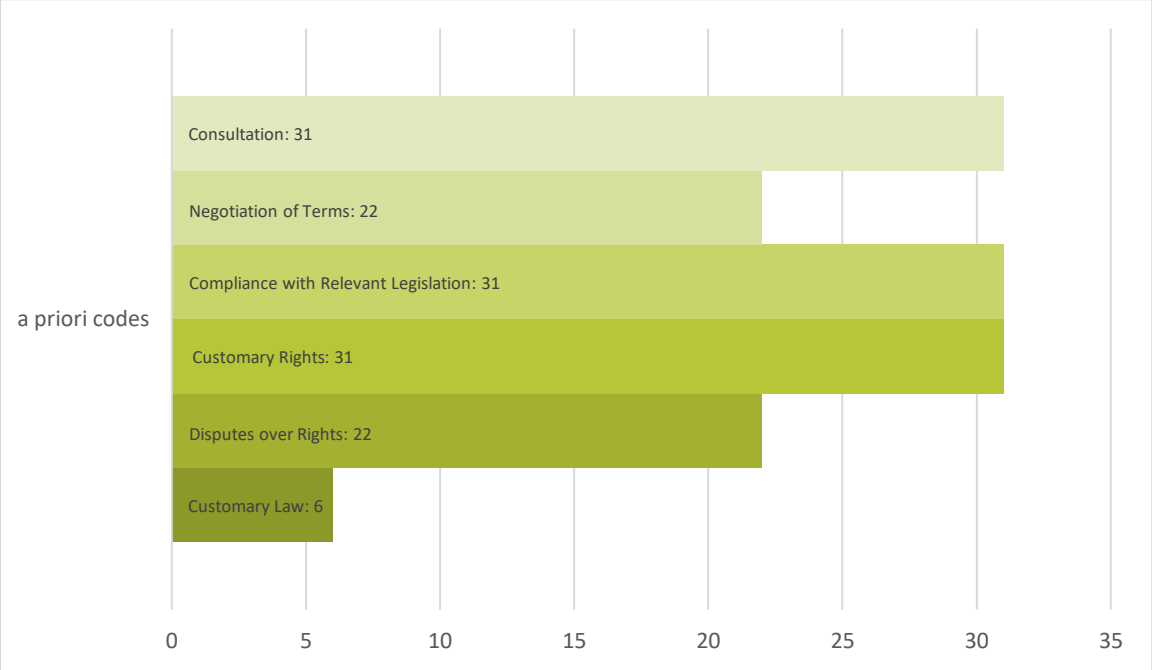

Figure 1 - A Priori Codes

The results confirmed that the selection process worked well, leading to a research sample worthy of examination but revealed some unexpected outcomes too. For example, the presence of the **Customary Law** code in only six standard, **Sustainable Development** referred to in only ten documents and **Wild harvesting** only cited in five documents. Finally, **Biodiversity Protection** code is present in twenty-two different documents, reflecting a generic commitment over the topic, but **Genetic Resources Issues** (other than GMO), are present in only eight documents. Therefore, at a first glance, biodiversity seems to be mainly encompassed under the GMOs umbrella.

Regarding the emerged grounded almost all standards have been revised **After NP** There is a clear majority of standards developed by **NGOs**, while there is almost equivalence between standards clearly related to **Farming Practices** (thirteen) and the ones applicable to **Different Actors of the Supply Chain** (fifteen). Twenty-five asks for **Third-party Audit**, but only nine of them contain **Non-Conformity Sanctions.** A possible explanation is that non-compliance is sometimes treated in other documents and not in the criteria themselves. The code **Traceability** is a requirement for fourteen standards while **Climate Change Mitigation** is cited in nineteen documents. Lastly, fifteen documents contain quotations about the **Impact** on stakeholders and local communities.

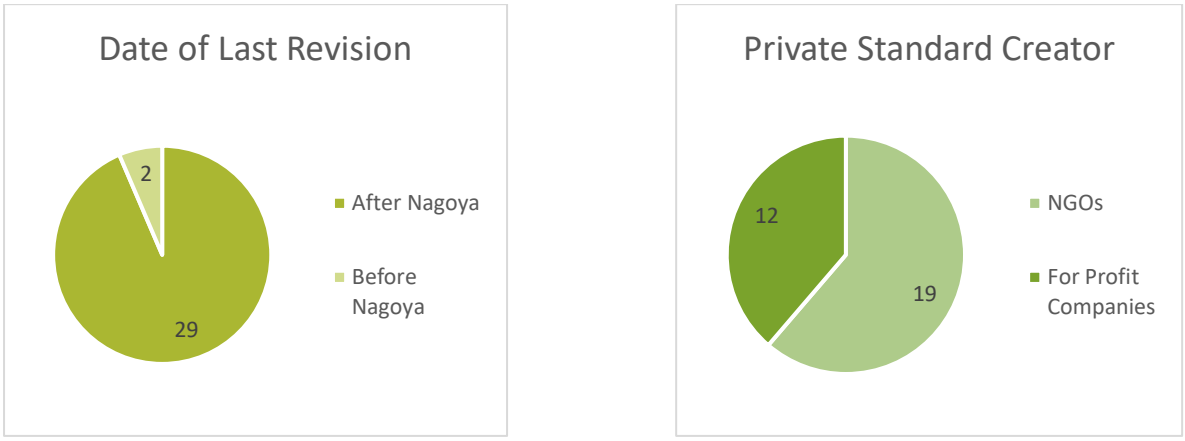

Figure 2 - Date of Last Revision and Private Standards Creators

4.3.2. Second Round of Coding

Second Layer of Codes

After the first coding round, some of the a priori and ground based codes contained in the codebook have been structured in a new layer of codes.

Consultation with Local Communities/Stakeholder:
-Prior Informed Consent
-Communication Channel (with Local Communities and Stakeholders)

The NP's ABS obligations are based on *Prior Informed Consent.* Therefore, every precise quotation referring to this international principle has been coded accordingly. Secondly, NP asks to provide clear paths to communicate with local communities and stakeholders. Therefore, references to the creation of *Communication Channels with Local Communities and Stakeholders* have been underlined.

Negotiations with Local Communities/Stakeholder
-Compensation for Local Communities and Stakeholders
-Mutually Agreed Terms
-Benefit Sharing

The code **Negotiations** with Local Communities/stakeholder has been elaborated trying to underline different aspects of these negotiations. First all of all, every precise mention to *Mutually Agreed Terms* has been coded accordingly. Second, references to any kind of *Compensation for Local communities and Stakeholders* have been highlighted. Finally, considering that ABS under the NP are composed by prior informed consent and *Benefit Sharing*, every clear mention was coded.

Disputes over Rights
-No Conflict over Rights
-Documented Resolution Procedure

Considering that agreement over ABS is one of the main NP's objective, the code **Disputes over Rights** has been investigated further with two other codes: *No Conflict*, when there is a clear requirements of blocking every action before an agreement is found, and *Documented Resolution Procedure* when the obligation of documenting is clearly affirmed.

Customary Rights
-Land Use rights/Water Use rights
-Genetic Resources Rights
-Rights on Traditional Knowledge

As said during the first round of coding, **Customary Rights** over Natural Resources needed to be further specified. Therefore, three types of rights were distinguished: *Land, Use rights/Water Use rights, Genetic Resources Rights, Rights on Traditional Knowledge.* The code *Genetic Resources Rights* was used also in presence of generic mentioning of rights over natural resources.

Customary Law

No further coding has been conducted over the concept of **Customary Law**. This because the number of Documents and Quotations containing it was really low after the first round.

Compliance with International Law
-International Labour Legislation
-Convention on Biological Diversity
-Cartagena Protocol
-Nagoya Protocol
-Declaration on the Rights of Indigenous People

Considering that all standards ask to comply with relevant national and international legislation, the latter was further categorized in specific treaties and categories. *International Labor Legislation* was used to code every quotation referring to ILO Conventions, to find out how standards consider working rights and human rights compared with environmental legislation, represented by *Convention on Biological Diversity* and its protocols, *Cartagena Protocol* and *Nagoya Protocol*. Finally, the code *Declaration of Rights of Indigenous People* was used because it contains Prior Informed Consent among its obligations and it was noted sometimes in the research sample.

Of the grounded codes emerged during the first round, only two have been further refined.

Different Actors of the Supply Chain
-Fair Trade
-Biotrade

Those standards which showed a focus on market actors have been further coded as *Fair Trade,* when there are generic references to the topic, and as *Biotrade*, defined as the marketization of genetic materials.

Stakeholder Impact:
-Benefit Stakeholder
-Support (for Local Communities)
-Preferential Employment for Community

The impact over stakeholders has been characterized as *Benefit Stakeholders* when the standards ask to have a positive impact, as *Support for Local Communities* when they require

investment to support local communities and finally as *Preferential Employment for Community.*

Results of the Second Coding Round

The aim of the second round of coding was to highlight elements clearly referable to the NP, identifying not only direct relations but most importantly indirect connections and/or misleading similarities.

As we have seen in Chapter 2, the ABS obligations can be broken down in PIC and benefit sharing obligations There are twenty-four standards containing the code of *Prior Informed Consent* while nine quotations have been coded as *Benefit Sharing* in nine documents. Interestingly, eight more standards contain at least one quotation coded as *Compensation to Local Communities and Stakeholders*. There are only three quotations in which both codes, *Benefit Sharing* and *Compensation to Local Communities and Stakeholders*, have been used. This because quotations marked with these two codes are usually mutually exclusive, with the latter implying simple economic compensation and the former a broader spectrum of benefit.

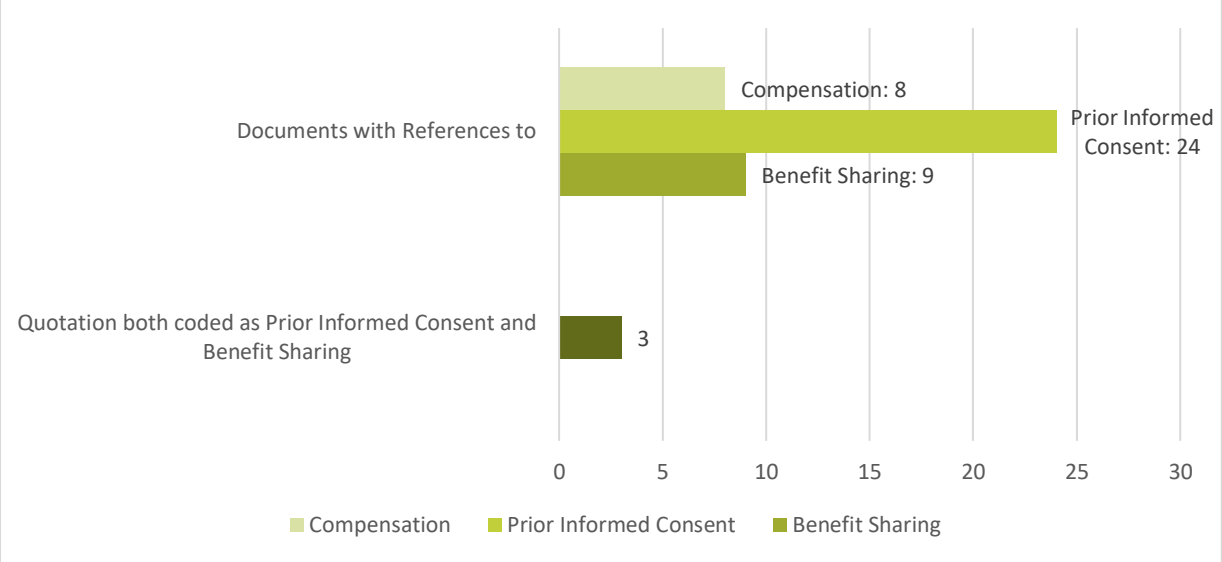

Figure 3 - PIC and Benefit Sharing

Regarding the involvement of local communities, the code *Mutually Agreed Terms* was used in only 9 documents. The creation of communication channels, reflected by the code *Communication Channel,* was found in fourteen documents (six times, the code *Communication Channel* was used in the same quotation as *Prior Informed Consent*). Among the thirty-three quotations coded with **Disputes over Rights** spread in twenty-two documents, eighteen were further coded as *Documented Resolution Procedure* and fourteen as *No Conflict*. These results indicate a clear standards' commitment to avoid conflicts as much as possible.

Talking about the code **Customary Rights**, instead, there is a clear prevalence of *Land/Water Use Rights* (twenty-seven documents and forty-one quotations). Quotations marked as *Genetic Resources Rights* are present in twelve different documents, twenty in total. There are only five documents containing the code *Rights on Traditional Knowledge.*

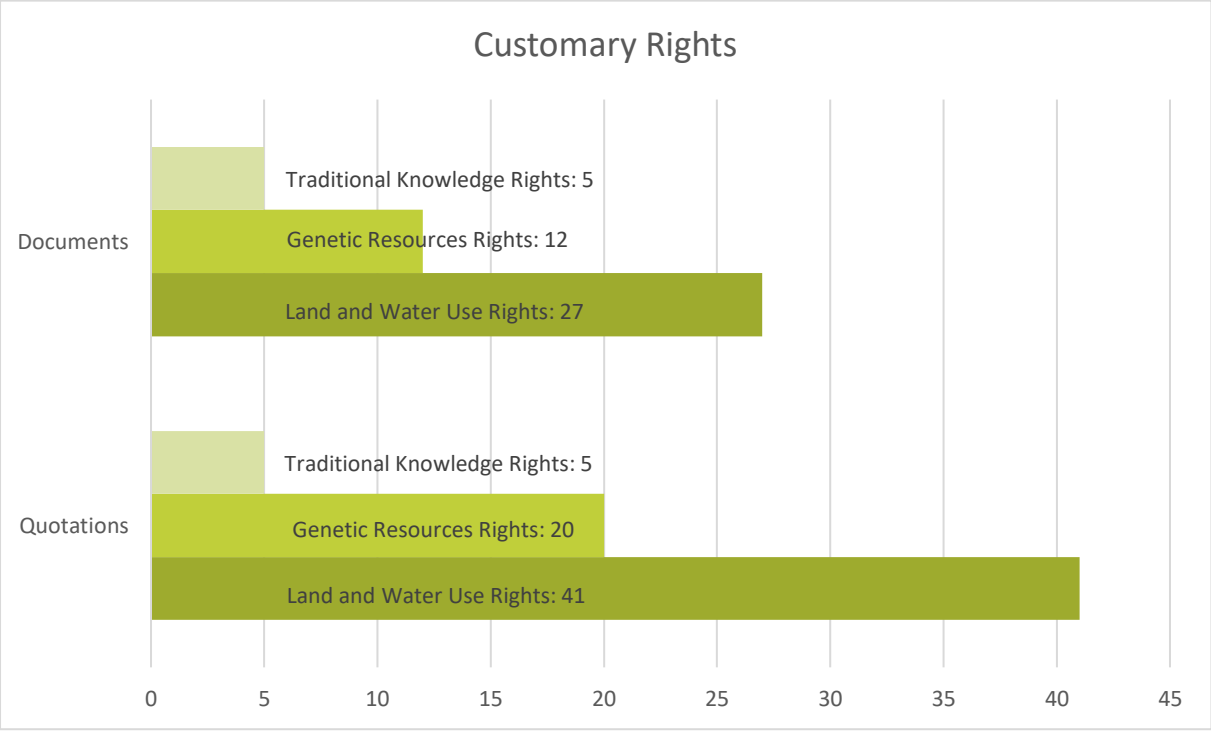

Figure 4 - Customary Rights

One result that immediately catches the eyes is that mentions of ILO conventions are present in twenty-nine standards out of thirty-one. In contrast, regarding environmental legislation, the code *Convention on Biological Diversity* is used in only ten standards, four of which

mention NP as well. *Declaration on Rights of Indigenous People* code has been used in six documents. Connected to that, eight standards have been found as focused on Fair Trade, but only two contain the code **Biotrade**.

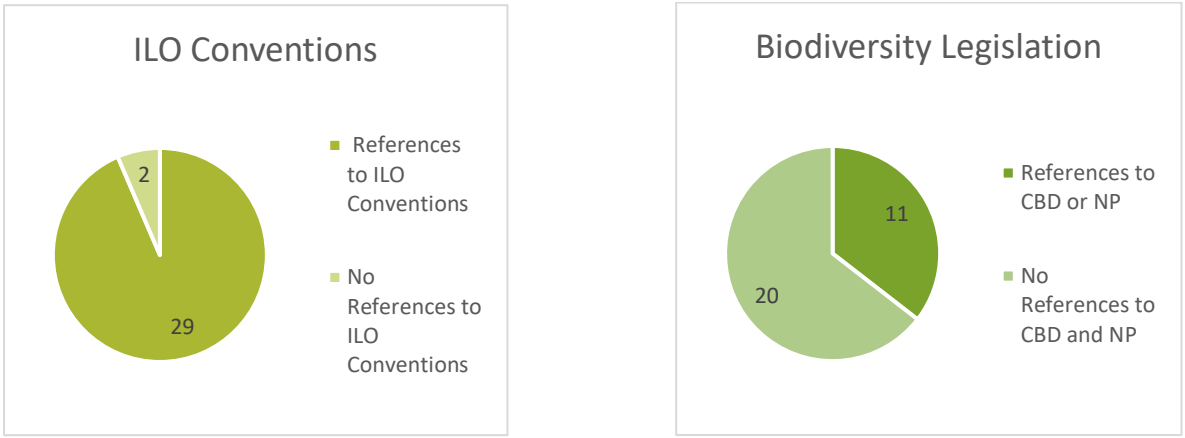

Figure 5 - ILO Conventions and Biodiversity Legislation

As explained after the first coding round, fifteen documents contain at least one mention to **Impact on Stakeholders** for thirty isolated quotations. Of these quotations, thirteen are associated with the code *Benefit Stakeholder*, ten with *Preferential Employment* and fourteen with *Support for Local Communities and Stakeholder*. Therefore, in general, standards ask businesses to have a positive impact over stakeholders, but the formulation spaces from direct involvement (for example through employment) to simple charity.

4.4. ANALYSIS OF THE RESULTS

In the previous sub-chapters, simple quantitative data have been reported to define the general situation. In the following sub-chapters, the actual research question of how ABS obligations are covered in the research sample has finally been answered. First of all, standards directly and indirectly referable to the NP have been identified. Then, the remaining standards have been analysed using the NP's central provisions (prior informed consent, benefit sharing, customary rights), to find out why they cannot be associated with the NP. A visual representation of these relations is available in Annex II, while a summary of every standard's characterization can be found in Annex III:

4.4.1. Standards Directly or Indirectly Referable to the NP and its ABS Obligations

Of the analysed research sample, four standards were found directly related to the NP, while three more demonstrated to have incorporated indirectly the rationales and logics at the base of the Protocol.

Direct Relation

The standards showing direct correlation with the NP are the Union for Ethical Biotrade (UEBT), For Life and Fair for Life (which are released by the same organizations) and Kenya Flower Council. The first have been developed by entities coded as **NGOs**, while the last one is coded as **For Profit Company**, being a creation of the floricultural industry. They all mention the NP's and the CBD, containing several quotations coded as *Prior Informed Consent* and *Benefit Sharing* as well. The scope of UEBT and For Life/Fair for Life had been coded in the first round as **Different Actors of the Supply Chain** and in the second ones as *Biotrade* and *Fair Trade* respectively. Kenya Flower Council is quite anomalous, considering that it specifically addresses flowers producers and therefore was coded as **Farming Practices**. Moreover, it does not contain quotations coded as **Wild Harvesting**, while UEBT and For Life/Fair for Life do. These VSS are then the only ones considering directly related to the NP.

Figure 6 - Standards Directly Related

Indirect Relation

More needs to be said regarding standards which seem to consider the NP's provisions without directly mentioning it. In order to prove this implied correlation, documents with quotations coded as *Prior Informed Consent, Benefit Sharing* and *Genetic Resources Rights/Rights on Traditional Knowledge* were investigated.

Four standards contain quotations coded as *Prior Informed Consent* and *Benefit Sharing* in their criteria. They are Climate, Community and Biodiversity Standards (CCB), Forest Stewardship Council (FSC), Roundtable on Sustainable Palm Oil (RSPO) and the Roundtable on Sustainable Biomaterial (RSB).

The CCB's focus is on projects "*that deliver credible and significant climate, community and biodiversity benefits in an integrated, sustainable manner*"[90]. Among its criteria, CCB contains the respect of customary rights over natural resources in general, therefore it was coded using *Genetic Resources Rights*. It is one of the few standards with provisions coded as **Customary Law** and *Convention on Biological Diversity*.

FSC council is similar to CCB. Despite not citing the NP, it contains a Principle where all the relevant codes were used: Prior Informed Consent, Benefit Sharing, Genetic Resources Rights and even Rights on Traditional Knowledge. Therefore, it can be considered indirectly connected with the NP.

On the other hand, RSPO and RSB are focused on palm oil and biofuel production, encompassing quotations coded as *Land/Water Use Rights*. The formulation of their provisions does not seem to cover genetic resources or traditional knowledge rights, not even indirectly. Therefore, they can hardly be connected to the NP.

[90] 'Climate, Community And Biodiversity Standard' (*Verra.org*, 2020) <https://verra.org/wp-content/uploads/2017/12/CCB-Standards-v3.1_ENG.pdf> accessed 20 January 2020

Really interestingly is indeed the case of Fair Wild. This standard contains quotations coded as *Benefit Sharing*, together with **Biodiversity Protection**, **Wild Harvesting**, *Biotrade* (the only one other than the UEBT) and all the first a priori codes. It does not mention directly Prior Informed Consent anywhere, even if it calls for fair consultation. What it does contain is the code *Genetic Resources Rights*, considering how extensively the concept of wild harvested natural resources is treated. In its acronyms list the expression "ABS (Access and Benefit Sharing)" is present, but it is not used in the text. The reason why Fair Wild does not contain any direct reference to the NP is that the examined criteria approved before the signing and the entering into force of the Protocol and never revised. Hopefully, new versions will directly refer to the NP.

Figure 7 - Standards Indirectly Related

4.4.2. Similarities with the Protocol

Apart from the seven treated above, eight more VSS show some kind of similarities with the NP, while the remaining standards, despite sharing some of its aspects (request of consultation with local communities, respect of rights) cannot be associated with the Protocol at all.

The concept of Prior Informed Consent

As discussed in Chapter 2 the idea of guaranteeing local populations and communities the right to Prior Informed Consent (PIC) finds its roots in human rights law. Therefore, clear mentioning of PIC could be due to other pieces of legislation other than CBD and/or NP. It was noted during the second round of coding that some of the standards (six) contain citations from the Declaration of Rights of Indigenous People, which explicitly address the principle of PIC.[91] Considering the seven standards directly and indirectly related to the NP and the five which mention the Declaration but not the NP or the CBD, being twenty-four the standards containing the code *Prior Informed Consent,* twelve more standards have incorporated this concept without specifying its legal basis directly. This probably means that standards' creators nowadays have interiorized this concept, considering it not related with some form of obligations but as a general, necessary condition.

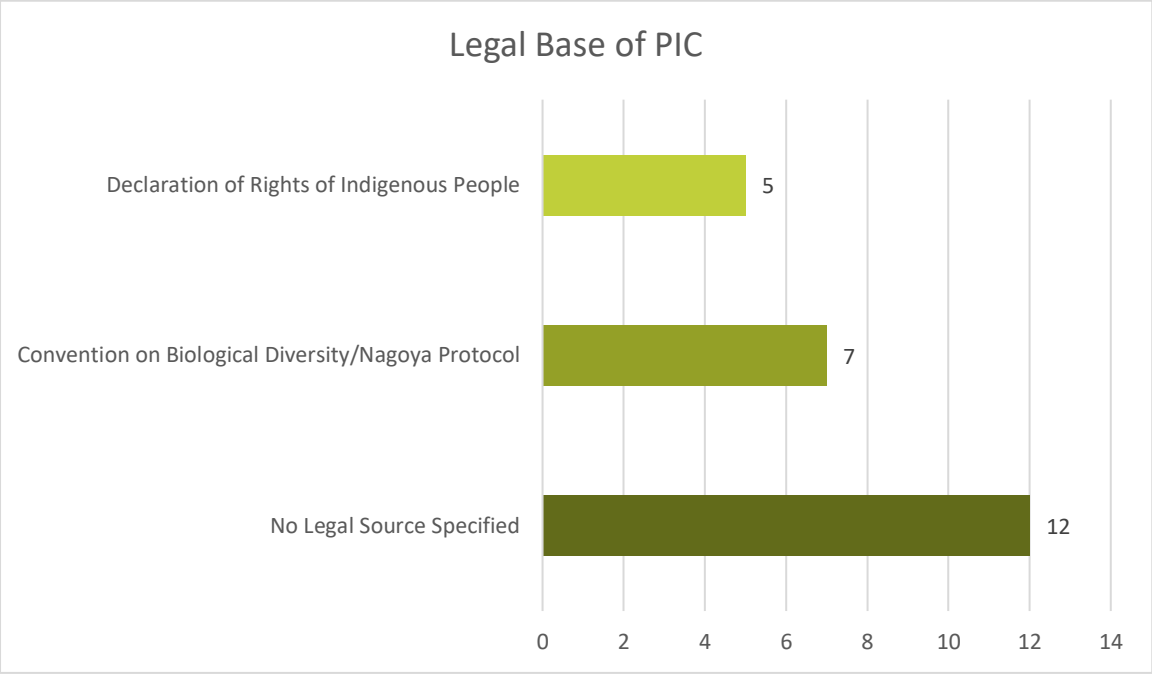

Figure 8 - Legal Base of PIC

[91] Declaration of the Rights of Indigenous people (n 3030)

Compensations to Local Communities

All the eight standards containing quotations coded as *Benefit Sharing* have already been considered in the previous sections, since they were all directly or indirectly related to the NP. The concept of Benefit Sharing has yet to enter in the public imagination as a self-standing obligation, contrarily to PIC. The dominant belief is still focused on economic payment to affected stakeholders, without considering the broader perspective of benefit sharing.

Interestingly, *Prior Informed Consent* is accompanied with the code *Compensation to Local Community and Stakeholders* in eight more different standards (Bonsucro, Amaggi, Donau Soya, Europe Soya, Sustainable Farming Assurance Program, Sustainable Feed Standard, Sustainable Grown and the Roundtable on Responsible Soy Production). Sustainably Grown is worthy of a more careful examination among them because it does mention PIC and compensation to local communities, as well as interesting references to Genetic Resources Rights, not present in the other seven standards. However, its general formulation, mainly focused on agricultural operations, tends to assure the respect of indigenous people's rights rather than focusing on their acquisition. This is confirmed by the absence of clauses referable to benefit sharing, which has excluded even indirect connections with the NP. The other seven standards only contain provisions over *Land/Water Use Rights*, which classify them out of the NP's scope. Therefore, they only show some similarities with the NP's provisions.

PIC and Compensation to Local Communities					
	Prior Informed Consent	*Compensation to Local Communities and Stakeholders*	*Land/Water Use Rights*	*Genetic Resources Rights*	*Benefit Sharing*
Amaggi Responsible Soy Standard	√	√	√	X	X
Bonsucro	√	√	√	X	X
Europe Soya	√	√	√	X	X
Donau Soya	√	√	√	X	X
Sustainable Farming Assurance Programme	√	√	√	X	X
Sustainable Feed Standards	√	√	√	X	X
Sustainably Grown	√	√	X	√	X
Roundtable on Responsible Soy Production	√	√	√	X	X

Table 5 - PIC; Customary Rights and Benefit Sharing: Similarities with the NP

Customary Rights over Genetic Resources

One critique which could be moved against the research sample and in general against Standards Map is the abundance of standards focusing more on agricultural practices and less on social aspects. Despite all the adopted balancing measures, this is the weakest point of the research sample delimitation.

One finding which prove the greater focus over production is that 27 standards mention land and water use rights. Among the 12 standards with at least one quotation coded as *Genetic Resources Rights* 8 contain the code *Land/Water Use Rights* as well. Apart from the standards directly mentioning the NP (UEBT, Fair for Life, For Life, Kenya Flower Council), all the other

quotations coded as *Genetic Resources Rights* refer to natural resources in general. Consequently, these standards have been classified as indirectly linked with the NP.

Figure 9 - Genetic Resources Rights/Land Water Use Rights

The content analysis' results show that genetic resources rights are still considered less important than the water and land ones. Interestingly, four standards (Fair Wild, Sustainably Grown, Kenya Flower Council and Veriflora) of the five not mentioning land and water use rights, contain indeed quotations coded as *Genetic Resources Rights*.

Unsurprisingly, when the code *Traditional Knowledge's Rights* is present, so is *Genetic Resources Rights*.

4.4.3. Standards not Related to the Nagoya Protocol

During the analysis, quotations coded with interesting tags such as *Prior Informed Consent*, **Disputes over Rights** and *Land/Water Use Rights* were found in other standards as well. The problem is the absence of co-occurrence with *Benefit Sharing* and/or *Compensation to Local Communities and Stakeholders* and the general focus they have on production. Moreover, when they refer to rights, these standards generally focus on respecting local communities'

rights without the intention of acquiring them for commercial purposes. In fact, the code **Impact on Stakeholders** is present in almost all of them and the VSS certifies that local stakeholders are free from negative effects.

Two sub-groups can be further identified among these standards. Standards release by Aquaculture Stewardship Council (ASC) and the ones released by Fairtrade. ASC's focus is on aquaculture and therefore contain provisions similar to the ones about farming production: access to water resources and respect for local biodiversity. Fairtrade–Climate Mitigation and Fairtrade - Haired Labour are indeed focused on social aspects but they are really far from the NP's scope.

To summarize, all standards without forms of compensation to local communities and provisions over genetic resources have been classified as not covering the NP in their provisions.

5. THE TRUE POTENTIAL OF PRIVATE STANDARDS

In Chapter 3 the reasons why private standards dominate modern markets as well as their major drawbacks were discussed, while in Chapter 4 the results of the content analysis have been presented, answering the question on how VSS cover the NP's provisions in their criteria.

The aim of this Chapter is to assess whether or not VSS can specifically answer some of the NP's needs, summarized in Table 6 below.

Criticisms Against the Nagoya Protocol		
Criticisms	*Affected parties*	*Main issues:*
Increased Bureaucracy	*Users*	– Inconsistency among legal systems – Investments to comprehend the different national requirements
Slowing Down of Research	*Users*	– Wrong theoretical basis – Long procedures – High Costs – Liability
Incompleteness and Unclarity	*Provider countries, User Countries*	– Materials sourced before the NP – Materials kept in gene banks – Unclarity of articles
Lack of Implementation	*Providers countries*	– Lack of resources – Lack of help

Table 6 - Criticisms Against the Nagoya Protocol

5.1. PRIVATE STANDARDS' POTENTIAL VS NAGOYA CRITICISMS

To determine whether or not private standards can contribute to the NP's implementation, the reasons to employ private standards and their major defects addressed in Chapter 3 were summarized in Table 7.

Private Standards' Advantages and Defects	
Objectives	*Drawbacks*
– Maintain High Quality and Safety Levels – Market Differentiation – Comply with Public Regulation – Shifting of Liability – Preempt the Legislator – Bridge the Gap between Different Legal Systems. – Supplement law – Fill in void in public regulation	– Legitimacy – Costs

Table 7 - Theoretical Framework to Evaluate VSS Efficacy

The main objection that could be raised against employing private standards to implement the NP is that the Protocol addresses States, requiring the creation of public legislation. Nevertheless, the development of standards and code of conducts is supported by the NP, as specified in Chapter 2. Article 20 and 21 require Parties to support the development of standards and code of conducts, making clear that VSS could help the coherence and the effectiveness of the public legal framework.

5.1.1. Private Standards' Objectives and the Nagoya Protocol's Needs

The potential of VSS shall not be evaluated through a mere counting of how many objectives they could achieve but by the quality of these achievements. Therefore, no quantitative measurement is in place but only a qualitative reflection on whether or not the VSS intrinsic characteristics could offer interesting opportunities in relation to the NP's problems.

- **Maintenance of High Quality and Safety Levels:** private standards focusing on production systems usually establish levels and parameters to guarantee that the final product is of high quality and safe. Assuming a broader and indirect perspective, however, the effect that standards could have in modelling certain processes required by the NP should not be ignored. For example, following the provision of Article 21, private standards could facilitate the relation between users and local communities, providing expertise about their cultural habits and decision making processes, ultimately creating repeated procedural patterns to be employed by different users.
- **Market Differentiation:** VSS offer reputational advantages. Especially when developed by NGOs, private standards' logos increase the status of certified businesses, assuring consumers that certain requirements have been met. This process enhances the value of the supply chain: certified products are more appealing at the eyes of consumers, who are in theory willing to pay more for them. For this reason, labels are commonly covered by many symbols, images and claims,[92] causing an overload of stimuli.[93] It is doubtful whether a specific label stating that the NP is respected could catch the eyes of the consumers. However, according to the Biodiversity Barometer developed by UEBT,[94] there is a huge market waiting for biodiversity certified products. In their surveys, 79% of the consumers seems to believe that having a good impact on biodiversity is a moral obligation for companies,

[92] 'Are There Too Many Eco-Labels And Green Ratings?' (*GreenBiz*, 2010) <https://www.greenbiz.com/blog/2010/09/23/are-there-too-many-eco-labels-and-green-ratings> accessed 21 January 2020

[93] Sun-Jung Moon, John P. Costello and Dong-Mo Koo, 'The Impact Of Consumer Confusion From Eco-Labels On Negative WOM, Distrust, And Dissatisfaction' (2016) 36 International Journal of Advertising

[94] 'Biodiversity Barometer' (*The Union for Ethical Biotrade*) <http://www.biodiversitybarometer.org> accessed 21 January 2020

while only 37% believes that companies actually care. Number are even higher in younger generations. The reliability of this data can be discussed, but, even if exaggerated, they still reveal that trustworthy logos could have a huge impact on products' value. During the content analysis, the code "Label" was used to identify relevant provisions on labelling but unfortunately standards' criteria rarely contain specifications on labels. Consequently, the standards' websites were investigated finding that, with the exception of Kenya Flower Council, all the VSS directly and indirectly related to the NP offer some sort of logos or certification. For instance, UEBT certifies companies with ethical sourcing systems.[95] In a similar way, Fair for Life and For Life certifies corporate social responsibility and responsible supply chains, differentiating products made mostly with fair trade ingredients and the ones containing only single certified ingredients.[96] The attention these VSS pose on labels and communication to consumers reveals how much they believe in markets to spread awareness over biotrade. Increasing the value of the supply chain, criticisms to the NP's costs of implementation would be reduced, because of the higher revenues for companies and stakeholders.

- **Compliance with Public Regulation:** collaborating with public authorities, private standards could design requirements that, when respected by users, could speed up the public procedures to access genetic resources. For example, Kenya Flower Council asks its members to keep records of the purchased variety and breeds, to respect the relevant national legislation. If VSS included similar requirements derived by the NP's implementing legislation, users could easily prove to relevant national authorities that they respect legal obligations, speeding up the procedures to access genetic resources.
- **Shifting Liability:** complying with standards, users can demonstrate their due diligence. This would be particularly useful for the so-called "secondary users". In practice, genetic resources are often accessed by "primary users" who do not employ

[95] 'Using Our Mark — The Union For Ethical Biotrade' (*The Union for Ethical BioTrade*) <https://www.ethicalbiotrade.org/using-our-mark> accessed 21 January 2020

[96] 'Fair For Life Fair Trade Label | Ecocert' (*Ecocert.com*, 2020) <https://www.ecocert.com/en/certification-detail/fair-trade-fair-for-life> accessed 21 January 2020

them directly but sell the genetic materials to companies and laboratories all over the world. Genetic resources' suppliers could demonstrate that their supply chain respected the NP, showing internationally recognized certifications to secondary users. Secondary users could then shift liability upstream, demonstrating to the relevant authorities of their countries that the genetic resources used in their laboratories are acquired from certified suppliers. Being protected from liability causes, researches would not be slowed down.

- **Preempt the Legislator:** this is not relevant for the relation between private standards and the NP. VSS will never satisfy the provisions of the Protocol, which is deemed to be implemented through public regulations.
- **Bridge the Gap between Different Legal Systems:** the creation of widely recognized private standards could facilitate the relations between provider and user countries. For a long time, provider countries insisted to create an international requiring Recognized Certification of Compliances (IRCC) before granting patents involving genetic resources.[97] IRCCs are certificates released by provider countries to certify that the requirements of the NP have been met while accessing genetic resources and are published on the ABS Clearing House, a platform where the NP's Parties can share any relevant information. So far, the proposal of requiring IRCC in patent office has always been discarded by users countries, but, even if accepted, the number of IRCC would be very low: only 1191 by 19 countries so far.[98] Mutually recognized private standards could be a valid substitute of IRCC and, if permissions granted under their control were numerous, then provider countries could lobby user countries more effectively.
- **Supplement Law:** lack of implementation and enforcement is a major problem for the NP, especially in less developed countries. Private standard could partially remedy, with their private enforcement's mechanisms. The great majority of the examined standards and all the ones directly or indirectly related to the NP, require third-party

[97] Kanchana Kariyawasam and Matthew Tsai, 'Access To Genetic Resources And Benefit Sharing: Implications Of Nagoya Protocol On Providers And Users' (2018) 21 The Journal of World Intellectual Property
[98] 'Access And Benefit-Sharing Clearing-House' (*Absch.cbd.int*, 2020) <https://absch.cbd.int/> accessed 21 January 2020

certification. If the third-party inspection assessed non-compliance, the certification for users could be suspended impeding the use of logos on labels for example.

- **Fill in void in Public regulation:** once again it must be specified that VSS cannot substitute public legislation, they can simply complement and support its enforcement.

5.1.2. Private Standards' Drawbacks and the Nagoya Protocol's Needs

The main issues associated with the NP have been presented in Chapter 3.3. and can be reconducted to two main aspects, legitimacy and costs.

- **Legitimacy:** talking about the NP, the objections on legitimacy gain even more importance. States cannot leave the Protocol's implementation entirely to the private sector. Provider countries and user countries should collaborate actively together with private standards' setters and other stakeholders (indigenous people and local communities) to reduce as much as possible issues on legitimacy.
- **Costs:** being the NP a new layer of bureaucracy requiring further investments, users would not be happy to spend even more to obtain certifications. in fact, VSS usually require a fee to grant the certification, or at least the payment of third-party certifiers. To be worthy, the advantages derived from the certification should be higher than the costs.

5.2. THE TRUE POTENTIAL: COLLABORATION

Private standards, despite their remarkable potential will never be able to solve all the NP's problems. However, they could make its implementation smoother and less burdensome for all the involved stakeholders, as required by the Protocol itself.

First of all, VSS would increase the expertise and the information available to users. They could rationalize public legislation's requirements, satisfying legal obligations and creating models and repeated patterns to engage with local communities. In addition, when recognized by public authorities, they could even offer users faster procedures to obtain permits. Overall, the burden of bureaucracy over users would then be reduced.

Secondly, VSS could differentiate products on the market. Even considering the statistics of UEBT as biased, marketing potential regarding biotrade is clearly unused and could be employed more efficiently. This would increase the products' value and therefore the revenues of involved stakeholders.

From the point of view of provider countries, private standards could sometimes complement their incomplete legislations, especially regarding the enforcement. Countries having difficulties in implementing their own legal requirements, could employ private standards and their auditing systems as deterrents to avoid unlawful behaviours by users. The enforcing role of VSS would also protect indigenous people and local population by users' misbehaviours.

Finally, in user countries, private standards would facilitate the control over genetic resources employed in their territories and secondary users could shift liability to upstream chain's actors, avoiding complication that could slow down their researches.

The True Potential of Private Standards		
VSS could:	*For the benefits of …*	*Through …*
Reduce the burden of bureaucracy and facilitate compliance with national legislation	*Users*	– Providing information and expertise – Offering faster procedures to receive authorizations (collaborating with public authorities)
Facilitate dialogue with local communities	*Users, Indigenous People*	– Offering expertise and contacts
Differentiate products on the market	*Users*	– Logos on labels could differentiate products respecting the NP
Reduce liability complications	*Users (secondary users)*	– compliance with recognized standards could satisfy the due diligence principle
Bridge the gap between countries	*Provider and User Countries*	– Working as international certifications, standards could demonstrate that requirements have been met
Help the enforcement of public legislation	*Provider Countries, Indigenous People*	– Reduce users' unlawful behaviours through means of private law

Table 8 - The True Potential of Private Standards

Collaboration between involved stakeholders is probably the best way to effectively employ VSS. Provider and user countries should work together to design coherent requirements and public authorities should collaborate with private standards' creators, to maximize VSS' potential.

Mutual recognition and unification of labels under the same entity[99] is already a common trend of private legislation, and standard specifically targeting bio-trade should cooperate with bigger player as did, for example, in 2014 by UEBT and UTZ which created a successful Herbal Tea Program.[100]

The reputational power of well-known labels such as Fairtrade and UTZ could silently help the diffusion of the NP's provisions as they did in the past with human rights and labour rights. The content analysis shows that ILO convention are mentioned virtually in every VSS while the CBD and the NP are not. The focus on production that many standards have cannot be the only reason. International legislation on biodiversity, as well as environmental legislation in general still struggle to enter in the imaginary of standards creator. Hopefully, this would change in the next years.

[99] 'The Rainforest Alliance And UTZ To Merge, Forming New, Stronger Organization' (*Rainforest Alliance*, 2020) <https://www.rainforest-alliance.org/articles/rainforest-alliance-utz-merger> accessed 21 January 2020.
[100] 'UTZ — The Union For Ethical Biotrade' (*The Union for Ethical BioTrade*) <https://www.ethicalbiotrade.org/utz> accessed 21 January 2020.

6. CONCLUSION

The aim of this chapter is to offer a summary of the results, drawing the conclusions of this research and offering recommendations for involved stakeholders and future researches.

The main findings are presented in a conclusive summary, which recapitulate the essential steps of the research. Afterwards, implications for relevant stakeholder are presented. Finally, recommendations for stakeholders and future researches are given. In Annex IV, a more extended summary is available.

6.1. CONCLUSIVE SUMMARY

The aim of this research was to investigate how the main private standards addressing sustainability issues include the NP's ABS' obligations in their criteria and what would be their potential in helping the NP's implementation.

The main NP's provisions, which cover genetic resources and traditional knowledge associated with them, have been identified in the two components of ABS obligations, prior and informed consent and benefit sharing, regarding both national authorities and involved local communities (*2.1 Nagoya Protocol's Main Provisions).*

ABS obligations and the NP itself have been contested for a number of reasons: increased bureaucracy, longer procedures, high costs and a feeling of incompleteness are the most common critiques moved against the NP, from both user and providers *(2.2 The Nagoya Protocol Criticisms: A Counter Productive Tool?*).

VSS, voluntary sustainability standards developed by private institutions to tackle sustainability issues, have demonstrated to work well in reaching important objectives for both companies and the society as a whole (*3.1 Voluntary Sustainability Standards*).

To evaluate their efficacy in relation to the NP, a theoretical framework identifying the main advantages derived from their application was developed. Private standards usually guarantee that high quality and safety levels are achieved, differentiate products on the market through labels, help companies' compliance with legal requirements, shift liability demonstrating due diligence, supplement public legislation and even fill in void of public regulations, sometimes bridging the gap between different countries (*3.2.1 Reasons to Create and Employ Private Standards*). Issues on their legitimacy in regulating several aspects of the supply chain (for example defining safety and quality levels higher than the public ones) and the certification costs they impose over small businesses to enter in the markets have been identified as their major drawbacks (*3.2.2 Reasons to Create and Employ Private Standards*).

The content analysis conducted over a research sample of VSS showed that, overall, VSS do not include yet the NP's provisions in their criteria actively and extensively. Of the thirty-one examined standards, only four directly refer to the NP and its ABS provisions. Three more standards show indirect relation to the Protocol, asking their certified businesses to obtain prior informed consent before accessing natural resources owned by local population and to share benefits derived from that access. The remaining standards sometimes contain provisions similar to ABS but they cannot be reconnected to the Protocol (*4.4 Analysis of the Results*).

Despite the current situation being far from optimal, VSS do possess a certain potential for helping the NP's implementation. From the point of view of users, VSS could offer information and expertise to comply with public legislation regarding the NP, they could structure common patterns of dialogue with local communities and indigenous people and they could even speed up application procedures when recognized by public authorities. From the provider countries perspective, they offer an effective enforcing instrument through their independent certification's systems, reducing unlawful behaviours by users. Finally, VSS could help secondary users in demonstrating due diligence and they could be employed by user countries authorities to monitor genetic resources' utilization in their territories (*5.1. Private Standards' Potential vs Nagoya Criticisms*)

Collaboration between public authorities and standards creators to design recognized requirements and partnership between VSS specialized on biotrade and VSS with greater market recognition could maximize the results diminishing the criticalities, realising the standards' potential and helping the Protocol's implementation (*5.2 The True Potential: Collaboration*).

6.2. IMPLICATIONS OF THE RESEARCH

The study presented in this thesis analyzes both the actual and the potential relation between private standards and the NP. As demonstrated during the content analysis, private standards fail to consider actively and extensively the NP's provisions in their criteria. Overall, however, the research has shown that private standards offer interesting opportunities to facilitate the NP's implementation and would deserve more attention.

6.2.1. Implications for Relevant Stakeholders

Private standards' creators, public authorities from both provider and user countries, users and indigenous people are clearly the key stakeholders potentially affected by the relation between the NP and private standards.

From the point of view of the public legislator in provider countries, the research found that private standards could potentially overcome certain issues associated with the Protocol. Of course, provider countries' authorities shall maintain a predominant role but complementary action of the VSS should not be denied: increased control, faster procedure, possibility to enforce requirements. For user countries' authorities as well, private standards could be the solution to remedy some of the NP's problems, making the control of genetic resources inside their country easier.

So far, private standards' setters have demonstrated a scarce interest for the NP. The reasons why VSS analyzed during the content analysis fail to consistently consider the NP in their criteria are multiple, above all the focus many of them have on agricultural production.

However, the overall formulation of the standards themselves seem to open other explanations. For example, the difference in consideration between labour conventions and environmental legislation (that includes biodiversity protection and biotrade) is adamant. The focus on production and the voluntary nature of labour norms are important factors, but the consideration given to the CBD's framework is definitely insufficient. This implies that the CBD and the NP have still a long way to go to reach the consideration they would deserve among standards' setters.

Potential users, both private companies and academic scholars, frequently complain about the NP. This research has tried to offer solutions to some of the issues they face every day, assuming another perspective. Standards could transform some of the NP's burdens in opportunities, for example increasing the products' value with appropriate labels or speeding up access' procedures The framework created by the NP is in some way immature and incomplete but considering the increasing role of private regulation, there is no need to wait for public authorities to find a remedy. This study has shown that other ways exists and users themselves should work in that direction.

Finally, the role of indigenous people should be underlined once again. In Article 21, the NP stresses the importance of informing indigenous people on their rights and asks for the creation of voluntary code of conducts developed with affected local communities. The role of VSS in helping indigenous people is therefore recognized. The expertise of standards' creators, particularly when NGOs are involved, could definitely facilitate the relation between communities and users, reducing complications for the benefit of all. This research does not focus on the relation between VSS and indigenous people, but the role of VSS in implementing the NP can only be strengthened by assiduous collaboration with indigenous people and local communities.

6.2.2. Implications for Academic Research

The research has been based over recognized private standards' theories and on the NP's literature, trying to define solid bases before elaborating original ideas. Two main contributions to academic research have been offered and deserve to be highlighted.

First of all, the scheme used to evaluate the potential of private standards is based on literature but originally associates several inputs from different sources to create a specific theoretical framework. This framework has worked well with the NP and could be used to better define the role of VSS in relation to other treaties and international obligations as well.

Secondly, the thesis provides a first-hand analysis on VSS standards and the NP that was previously missing in literature. Despite the difficulties noticed during the selection process, indeed improvable, the investigation was conducted over more than two hundreds standards (considering the preliminary research samples) and offer a strong basis for future researches in the area.

6.3. RECOMMENDATIONS

Considering the current situation and the latent potential of private standards, specific recommendations are offered to public authorities and private standards' creators. Finally, inputs for future researches are identified to foster further reflections on this topic.

6.3.1. Recommendations for Public Stakeholders

The NP requires its Parties to create public legislation implementing its provisions, only suggesting the use of private standards as supporting instruments. Considering the lack of implementation[101] detected by the CBD's Secretariat and the limited number of IRCC released through the ABS Clearing-House,[102] the difficulties that many countries are facing cannot be denied. Therefore, the positive impact that VSS could have should not be ignored by public authorities in both provider and user countries.

Working together with standards' setters, provider countries could speed up the procedures for users, ultimately leading to increased efficiency. Faster access to genetic resources for

[101] Convention on Biological Diversity Secretariat (n 52)
[102] 'Access And Benefit-Sharing Clearing-House' (n 98)

users would then result in faster sharing of benefits for providers. In addition, increased collaboration with VSS would guarantee further controls over users and their practices. At the same time, however, they should be aware of the risks of leaving private actors in charge. To obtain the advantages and eliminate (or minimize) the disadvantages, provider countries' public authorities should accept some trade-offs collaborating with standards' setters both domestically and internationally.

On the other hand, user countries should embrace and encourage the adoption of VSS as much as possible. The advantages derived are potentially relevant for users operating under their jurisdictions, facilitating compliance and creating value in the supply chain. Moreover, considering that the NP asks user countries to monitor genetic resources employed in their territories, VSS could facilitate the control over users as well. User countries' authorities should collaborate with private actors removing any obstacles to their activities but cooperating with provider countries to maintain the predominance of public legislation over the private one.

6.3.2. Recommendations for Private Stakeholders

Considering the increasing biodiversity loss, biotrade's awareness is likely to increase in the next year. Private standards shall be ready to answer consumers' requests. As they did for topics such as child labour or dolphins' protection, VSS should assume a leading role on biotrade. The globalization of the supply chains, and the consequent number of requirements to comply with, is unlikely to stop, therefore the role of private standards as mediators between different markets and countries will probably increase.

The ability of intercepting consumers' requests, assuring expertise and instruments to businesses is the main reason why private standards have successfully reached a dominant position in modern markets. In order to maintain and improve their leading role, they should continue in this direction, receiving inputs from the production sector and from the consumers, acting accordingly.

6.3.3. Recommendations for Future Researches

Concluding a research always implies the begin of new ones. Further studies shall be conducted over the Nagoya Protocol. The importance of biodiversity will increase exponentially in the future and the control over biotrade will become critical. Similarly, in a more and more globalized world, private standards diffusion is unlikely to stop. Therefore, the relation between these two topics deserves more investments to acquire broader perspectives.

Future researches could analyse new sources and bigger research samples. The content analysis of this research has been conducted over a small research sample due to limited time and resources. The analysis of other databases, for example, could reveal new insights on the NP's consideration in VSS. In addition, standards are usually revised after three to six years: monitoring the changes in their criteria, the recognition of international biodiversity law by standards creators could be studied as well.

In second place, this research does not contain first-hand survey among consumers and business actors. On the one hand, consumers' awareness and interests for biotrade should be assessed independently to understand labels' potential. On the other hand, the necessities and suggestions coming from businesses could reveal further applications for private standards.

Finally, the evolution of private standards shall be monitored carefully. Nowadays, the increased importance of private regulation can be seen in several fields, from informatics to data protection. Biotrade may not be the currently most discussed topic on social medias but it is the base for researches on many everyday products. Considering the difficulties of public regulation in keeping up with ever changing situations, VSS are likely to get more and more important in this area.

ANNEX I - THE SELECTION PROCESS

STANDARDS FROM STANDARDS MAP

List of Standards Examined in Standards Map			
4C – The Common Code for the Coffee Community	FairWild	ISCC Plus	SAI Platform - Farm Sustainability Assessment
ADM Responsible Soybean Standard	FAMI-QS	ISCC PLUS – Voluntary Add-Ons	Sedex Global (Supplier Ethical Data Exchange)
Agricultura Sustentable Certificada	FEFAC Soy Sourcing Guidelines	KRAV	Sedex Members Ethical Trade Audit - SMETA Best Practice Guidance
Alliance for Water Stewardship	FEMAS Responsible Sourcing of Agricultural & Natural Products	LEAF Marque	SGE 21
Amaggi Responsible Soy Standard	FlorEcuador	LIFE Certification	Small Producers Symbol
Aquaculture Stewardship Council – ASC Pangasius	FLORIMARK GTP	Linieamentos Basicos para un Cacao Sostenible - Organizaciones	SOCIALCARBON Standard
Aquaculture Stewardship Council – ASC Salmon	Florverde® Sustainable Flowers	Linieamentos Basicos para un Cacao Sostenible - Productores	Soil Association organic standards
Aquaculture Stewardship Council – ASC Shrimps	Flowers and Ornamentals Sustainability Standard - Silver Level"	Louis Dreyfus Company (LDC) program for Sustainable Agriculture	STeP by OEKO - TEX
Baseline Code - Global Coffee Platform	Food Alliance	Mac Donald Supplier Workplace Accountability	Sustainability initiative of South Africa - SIZA
Belgian Feed Association (BFA), formerly BEMEFA	Food Safety System Certification 22000	Made in Green by OEKO-TEX	Sustainable Agriculture Network - Rainforest Alliance - 2010
Bluesign System	Forest Stewardship Council® - FSC® - Chain of Custody	Marine Stewardship Council - MSC	Sustainable Farming Assurance Programme
Bonsucro	Forest Stewardship Council® - FSC® - Forest Management	Milieukeur Plant Products - Protected Cultivation	Sustainable Feed Standard™
BOPP Standard - Grower Standard	Friends of the Sea - Wild Generic sustainable fishing requirements	Milieukeur Standard for Citrus Production - South Africa	Sustainably Grown
BOPP Standard - Packhouse Standard	Friends of the Sea – Marine Aquacolture	MPS - ABC	TE Responsible Down Standard, 2014
BRC Global Standard for Food Safety issue 7	Global Organic Textile Standards	MPS - GAP	TerraChoice -EcoLogo Program (UL Ecologo Certification)
Bunge Pro-S Assuring Sustainable Sourcing	Global Red Meat Standard	MPS-Socially Qualified (SQ)	Textile Exchange Global Recycle Standard

Business Social Compliance Initiative Code of Conduct - BSCI	Global Reporting Initiative (GRI)	Naturland Fair	Textile Exchange Organic Content Standard
CanadaGAP	Global Social Compliance - Environment Level 2	Naturland Organic Acquaculture	Textile Exchange Recycle Claim Standard
Cefetra Certified Responsible Soya Standard	Global Social Compliance - Environment Level 3	Naturland Sustainable Capture Fishering	Together for Sustainability
Certified Wildlife Frendly	GLOBALG.A.P. Acquaculture	NTA 8080- Sustainability criteria for biomass for energy purpose	Triple Sello
Clean Clothes Campaign - Code of Labour Practices	GLOBALG.A.P. Crops	OEKO - TEX Standard 100	TUV Rheinland Green product Market - Furniture
Climate, Community & Biodiversity Standards - CCB Standards	GLOBALG.A.P. Floriculture	PEFC International	U.S. Soybean Sustainability Assurance Protocol
Code of Practice for Sustainable Flower Production - EHPEA	GLOBALG.A.P. Livestock	PEFC International - Chain of Custody of Forest Based Products	Unilever Sustainable Agriculture Code
Codigo Nacional de Sustenibilitad de l'Industria Vitivinicola	GLOBALG.A.P. Risk Assessment on Social Practice (GRASP)	Predator Friendly Standards	Union for Ethical BioTrade - UEBT
Donau Soja	GMP+	PrimusGFS	UTZ
Echar PA'LANTE - Colcocoa	GoodWeave International	Protected Harvest Certification Standards: Stonefruit	UTZ Codigo de Conducta para Groupo y Multigroupo - Cafe
EcoVadis	Green Seal	Protected Harvest Standards for Lodi Winegrapes	UTZ Codigo de Conducta para Groupo y Multigroupo Version - Cacao
EQUITABLE FOOD INITIATIVE - EFI	GreenCo	Protected Harvest Standards for Oranges and Mandarines	UTZ Coffee module group certification
Ethical Trading Initiative - ETI	GSCP - Self assessment - Social Criteria	ProTerra Foundation	UTZ Coffee module individual certification
Europe Soya	Hala Food - SMIIC	Rainforest Alliance – RA 2017	UTZ Codigo de Conducta para Individual y Multisitio - Cafe
European Feed ingredient certification standard	Halal Food Preparation Turkish Standard	Red Tractor Combinable Crops and Sugar beet Standards	Vegaplan Standard for Primary Crop Prod. - Grains
Fair for Life	Halal Standard India - Halal Certification Terms & Conditions	Red Tractor Fresh Produce Standards	Vegaplan Standard for Primary Crop Prod. - Sugar Beet
Fair Labor Association	HAND IN HAND (HIH) - Fair Trade Rapunzel	REDcert	Vegaplan Standard for Primary Crop Prod. - Veg. For processing
Fair Trade US APS for Large Farms and Facilities	Harvested by Women Norms and Standards	REDcert-EU	Verified Carbon Standard
Fair Trade US APS for Small Farms and Facilities	Hong Kong Green Label Scheme - HKGLS	RESPECT'in	Veriflora

Fair Wage Network	IFOAM Standard	Round Table on Responsible Soy Association - RTRS	WFTO Guarantee System
Fair Wear Foundation	IFS Food	Roundtable on Sustainable Palm Oil - Principles and Criteria	Wine and Agriculture Ethical Trading Association (WIETA)
Fairtrade International - Hired Labour	Initiative for Compliance and Sustainability (ICS) Environmental Criteria	Roundtable on Sustainable Palm Oil - Supply Chain Certification	Workplace Conditions Assessment
Fairtrade International - Small Producers Organizations	Initiative for Compliance and Sustainability (ICS) Social Criteria	RSG Requirements (based on RTRS)	Worldwide Responsible Accreditated Production - WRAP
Fairtrade International Trader	International Code of Conduct for the Production of Cut Flowers	SA8000 - Social Accountability International	Zerya
Fairtrade Climate Standard	ISCC EU	Safe Quality Food Program	

Table 9 - Standards from Standards Map

STANDARDS FROM ECOLABEL INDEX

List of Standards Examined from Ecolabel Index				
AISE Charter for Sustainable Cleaning	Earth Advantage	Green Star Hotel Certification Programme	NSF/ANSI 140 Sustainability Assessment for Carpet	Sustainable Green Printing Partnership
ANAB - Architettura Naturale	EarthRight Business Certification	Green Table	NSF/ANSI 336: Sustainability Assessment for Commercial Furnishings Fabric	Sustainable Tourism Education Program (STEP)
Audubon International	Eco Hotels Certified	Green Tick	NSF/ANSI 342 Sustainability Assessment for Wallcovering Products	Sustainable Winegrowing New Zealand
Better Environmental Sustainability Targets (BEST) Standard 1001	EKOenergy	Legambiente Turismo	Processed Chlorine Free	TCO Certified
C.A.F.E. Practices	FedEx EarthSmart Solutions	level	RECS International	Totally Chlorine Free

			Quality Standard	
Calidad Galapagos	Global GreenTag Certified	MAS Certified Green	Roundtable on Sustainable Biomaterials	UL Environment Multi-Attribute Certification
Certified Green Restaurant®	Green Advantage Certification	Milieukeur: the Dutch environmental quality label	SFC Member Seal	UPS Carbon Neutral
Cradle to Cradle Certified(CM) Products Program	GreenCircle	National Green Pages™ Seal of Approval	Shipping Efficiency - A to G GHG Emission Rating	Wildlife Habitat Conservation Certification
CSRR Quality Standard	Green Globe Certification	NSF Sustainability Certified Product	SIP Certified	WQA Sustainability Mark
Degree of Green®	Green Leaf Eco Standard	NSF/ANSI 332 Sustainability Assessment for Resilient Floor Coverings	STARS	Zque

Table 10 - Standards from Ecolabel Index

SELECTION PROCESS OF THE FINAL RESEARCH SAMPLE

Final Research Sample – Selection Process							
	Mention of …. CBD or Nagoya Protocol	***Genetic resources***	***…Biodiversity***	***… Local communities***	***…Traditional knowledge***	***…prior or informed consent (or at least consultation)***	***… benefit sharing obligations (or at least negotiation of terms)***
4C – The Common Code for the Coffee Community	yes	no	yes	no	no	yes	no
ADM Responsible Soybean Standard	yes	no	yes	no	no	yes	no
Alliance for Water Stewardship	no	no	no	yes	no	yes	no
Amaggi Responsible Soy Standard	No	no	yes	yes	no	yes	yes
Aquaculture Stewardship Council – ASC Pangasius	no	yes	yes	yes	no	no	yes
Aquaculture Stewardship Council – ASC Salmon	yes	yes	yes	yes	no	no	yes

Aquaculture Stewardship Council – ASC Shrimps	yes	yes	yes	yes	no	yes	yes
Bonsucro	yes	no	yes	yes	no	yes	yes
Climate, Community & Biodiversity Standards - CCB Standards	yes	no	yes	yes	no	yes	yes
Donau Soya							
Europe Soya	no	no	yes	yes	no	yes	yes
For Life	yes	no	yes	yes	yes	yes	yes
Fair for Life	yes	no	yes	yes	yes	yes	yes
Fairtrade International - Hired Labour	yes	no	yes	yes	no	yes	no
Fairtrade Climate Standard	yes	no	yes	yes	no	yes	yes
FairWild	yes	no	yes	yes	yes	yes	yes
Veriflora	no	no	yes	yes	no	yes	no
Roundtable on Sustainable Biomaterials	no	no	yes	yes		yes	yes
Kenya Flowers Council- Flowers and Ornamentals Sustainability Standard - Silver Level"	yes	yes	yes	yes	no	no	yes
Forest Stewardship Council® - FSC® - Forest Management	yes	no	yes	yes	yes	yes	no
ProTerra Foundation	yes	no	yes	yes	no	yes	yes
Rainforest Alliance – RA 2017	no	yes	yes	yes	no	yes	no
Round Table on Responsible Soy Association - RTRS	yes	no	yes	yes	no	yes	yes
Roundtable on Sustainable Palm Oil - Principles and Criteria	yes	no	yes	yes	no	yes	yes
UTZ Codigo de Conducta para Individual y	no	no	yes	yes	no	yes	yes

Multisitio - Cafe							
Soil Association organic standards	no	no	yes	yes	yes	yes	no
Sustainable Farming Assurance Programme	no	no	yes	yes	no	yes	yes
Sustainable Feed Standard™	no	no	yes	yes	no	yes	yes
Sustainably Grown	no	no	yes	yes	yes	yes	yes
U.S. Soybean Sustainability Assurance Protocol	no	no	yes	yes	no	yes	yes
Union for Ethical BioTrade - UEBT	yes	yes	yes	yes	yes	yes	yes

Table 11 - Selection Process of the Final Research Sample

In addition to the selection process, some further choices have been made to define a proper sample and are here reported:

- Europe Soya is released by the same entity as Donau Soya. Being both present in the Standards Map, they were considered separately.
- Aquaculture Stewardship Council (ASC) – Pangasius, Salmon, Shrimps are three standards, all present in the Standards Map, released by the same authority and were considered separately. No other standard from the organization was examined.
- Fair Life is released by the same authority of For Life, another standard more focused on corporate responsibility. They are usually applied together so For Life was included in the analysis.[103]

[103] 'Fair For Life - FAQ' (*Fairforlife.org,* n.d.) <https://www.fairforlife.org/pmws/indexDOM.php?client_id=fairforlife&page_id=materials&lang_iso639=en> accessed 20 January 2020.

- Among the multiple Fairtrade standards, it was decided to examine the text of the two which have passed all the selection processes and were present in the Standards Map: Hired Labour and Climate.
- Among the multiple UTZ standards, it was decided to use the UTZ - Code of Conduct which was present in the Standards Map and set general principle for UTZ's standards.
- Among the multiple Rainforest Alliance standards, it was decided to use the Rainforest Alliance - Responsible agriculture which passed all the selections.
- Despite having passed all the selections, Green Globe is clearly out of scope being a certification for touristic activities. Therefore, it was cut off.
- Despite having passed all the selections, FEFAC- Soy Sourcing Guidelines was found out of scope, because of its public nature. Therefore, it was eliminated.

ANNEX II - ATLAS.TI

FIRST ROUND OF CODING: QUANTITATIVE RESULTS

At the end of the first round of coding, the following preliminary results were obtained. It must be specified that sometimes quantitative results refer to the documents (so the standards as a whole) and sometimes to quotations (segments of data worthy, so paragraphs and phrases part of the standards).

- Being the code **Consultation** really broad, unsurprisingly all standards contained at least one requirement about opening dialogues with local communities and stakeholders, in relation to rights, practices and decisions which could impact their lives.
- **Negotiation** of terms with local community and stakeholder instead happens to be mentioned only in 22 standards. In fact, when the requirement to consult local people is expressed, not always standards clearly specify that an agreement shall be reached.
- **Customary rights** are cited in all documents. In the second round of coding which types of rights are citated in which documents has been investigated.
- **Disputes over right** was cited at least once in 22 documents.
- **Customary Law** is cited in 6 different documents
- All standards clearly ask to comply with **National law** and relevant **International Legislation.**
- **Sustainable Development** is referred to in 10 documents.
- **Biodiversity Protection** is mentioned in 22 different documents
- **Wild harvesting** is cited in 5 documents.
- Mentions of **Genetic Resources Issues**, other than GMO, are present in 8 documents.

Regarding the ground-based codes, instead:

- Considering the examined texts, 29 standards out of 31 were revised **After NP**'s entering into force (2014).
- Regarding the institutions which developed the standards, 19 are **NGOs** and 12 **For Profit Companies**.
- The coding of the standards' scope resulted in 13 standards strictly related to **Farming Practices** and production, 15 applicable to **Different Actors in the Supply Chain** and 3, the ones developed by Marine Stewardship Council, on **Aquaculture**.
- Documents containing at least one quotation coded as **Impact on stakeholders** are 15.
- **Traceability** is a requirement for 14 standards.
- References to the use of **Labels** are present in 15 standards
- Standards referring to the **Size of the Certified Businesses** are 14.
- **Third-party Audit** is clearly required in 25 different standards
- **Non-Conformity Sanctions** were present in 9 standards.
- **Climate Change Mitigation** is cited in 19 documents.

SECOND ROUND OF CODING: QUANTITATIVE RESULTS

The second round of coding leaded to the following results. Once again, it must be specified that sometimes results refer to the documents and sometimes to quotations.

- There are 24 documents containing a direct mention of *Prior Informed Consent*, 14 documents contain the code of communication channel. The quotations coded with both *Prior Informed Consent* and *Communication Channel* are 6, in 6 different documents.

- *Benefit Sharing* code is present in 9 documents, while 11 standards contain at least one quotation coded as *Compensation*. *Mutually Agreed Terms* was used in 9 documents. In total, the quotations containing *Benefit Sharing* are 14 and only 3 are in common with *Compensation*.
- Among the 33 quotations coded with **Disputes over Rights** spread in 22 documents, 18 were associated with *Documented Resolution Procedure* and 14 with *No Conflict*.
- Talking about customary rights instead there is a clear prevalence of *Land/Water Use Rights* (27 documents). Quotations marked as *Genetic Resources Rights* are in 12 different documents, 20 in total. There are 5 documents containing the code *Rights on Traditional Knowledge.*
- Standards mention ILO conventions are 29 out of 31. Regarding environmental legislation, CBD is cited in 10 standards, 4 mention NP directly, 3 had references to Cartagena Protocol. *Declaration on Rights of Indigenous People* has been used in 6 documents.
- Among the standards applicable to different actors, 8 specifically mentions **Fair Trade**, 2 **Biotrade**.
- As explained after the first coding round, 15 documents contain at least one mention to Impact on Stakeholders for 30 isolated quotations. Of these 30 quotations, 13 are associated with the code Benefit Stakeholder, 10 with Preferential Employment and 14 with Support for Local Communities and Stakeholder.

VISUAL REPRESENTATION

Standards with direct or indirect relation and standards showing similarities are represented in the following visual representation created using ATLAS.ti

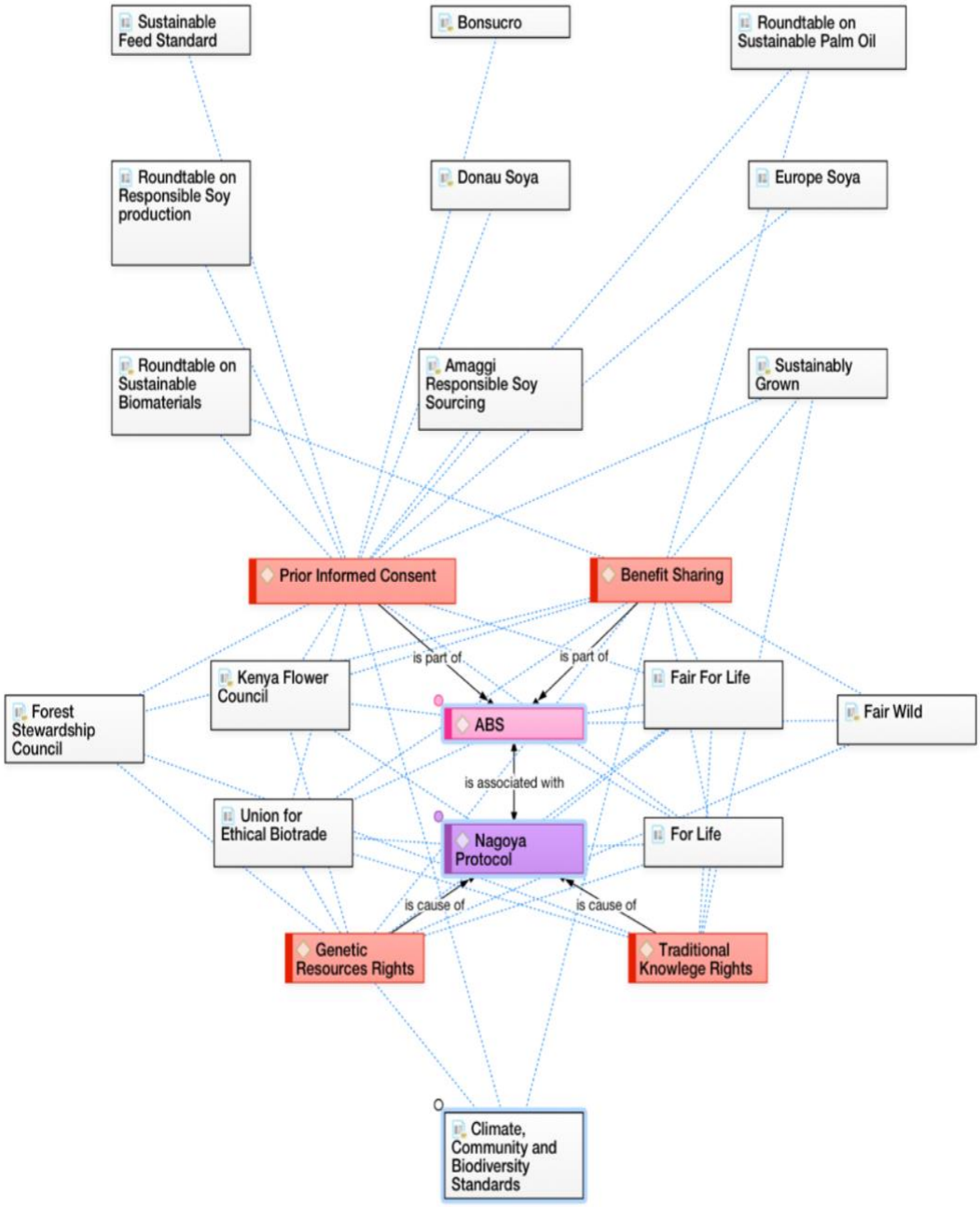

Figure 10 - Visual Representation of Standards Associated with the Nagoya Protocol

ANNEX III - SUMMARY OF THE CONTENT ANALAYSIS RESULTS

RELATIONS TO THE NAGOYA PROTOCOL

To summarize the results of the content analysis the following tables are provided, dividing among standards directly or indirectly referable to the NP, the ones which show similarities and the ones without any linkages.

Standards Directly Covering the Nagoya protocol	
Union for Ethical Bio Trade	NP clearly mentions among the criteria, as well as ABS obligations.
Kenya Flower Council	NP clearly mentions among the criteria, as well as ABS obligations.
For Life	NP clearly mentions among the criteria, as well as ABS obligations.
Fair for Life	NP clearly mentions among the criteria, as well as ABS obligations (it must be underlined that the releasing entity is the same as For Life)

Table 12 - Summary of Directly Related Standards

Standards Indirectly Related with the Nagoya Protocol	
Climate, Community and Biodiversity Standards	References to the CBD, clear mentions of PIC and Benefit Sharing as well as customary rights over natural resources in general and customary law.
Forest Stewardship Council	References to the CBD, clear mentions of PIC and benefit sharing (even if defined as "*economic conditions and other terms and conditions*") well as customary rights over natural resources in general and rights over traditional knowledge
Fair Wild	Revised before the NP's implementation, no clear mention of Prior Informed Consent but the general formulation of its provisions, the references to CBD and ABS, as well as the focus on wild harvesting of natural resources and benefit sharing make this standard quite close to the NP's scope.

Table 13 - Summary of Indirectly Related Standards

Standards Showing Similarities with the Nagoya Protocol	
Roundtable on Sustainable Palm Oil	Despite containing PIC and Benefit Sharing provisions, the main focus of RSPO obligations remain on land rights. Therefore, there there is no links to the NP, only some similarities in the obligations.
Roundtable on Sustainable Biomaterial	Despite containing PIC and Benefit Sharing provisions, the main focus of RSPO obligations remain on land rights. Therefore, there there is no links to the NP, only some similarities in the obligations.
Sustainable Grown	Despite mentioning PIC, Benefit Sharing is not considered in the criteria. There are instead form of economic compensation to local communities and stakeholders and the recognition of customary rights over all genetic resources. There is no linkage with the NP because the formulation of the standard refers to the above mentioned concepts of customary rights, compensation and PIC not in the form of collaboration but only mere respect of local communities activities.
Amaggi Responsible Soy Standard	Mentions of PIC, compensation to local communities and land/water use rights, but the scope (mainly faming practices) and the absence of references to genetic resources rights excludes that this standard actually covers or refers to the NP, even indirectly.
Bonsucro	Mentions of PIC, compensation to local communities and land/water use rights, but the scope (mainly faming practices) and the absence of references to genetic resources rights excludes that this standard actually covers or refers to the NP, even indirectly.
Donau Soya	Mentions of PIC, compensation to local communities and land/water use rights, but the scope (mainly faming practices) and the absence of references to genetic resources rights excludes that this standard actually covers or refers to the NP, even indirectly.
Europe Soya	Mentions of PIC, compensation to local communities and land/water use rights, but the scope (mainly faming practices) and the absence of references to genetic resources rights excludes that this standard actually covers or refers to the NP, even indirectly.
Roundtable on Responsible Soy Production	Mentions of PIC, compensation to local communities and land/water use rights, but the scope (mainly faming practices) and the absence of references to genetic resources rights excludes that this standard actually covers or refers to the NP, even indirectly.
Sustainable Farming Assurance Program	Mentions of PIC, compensation to local communities and land/water use rights, but the scope (mainly faming practices) and the absence of references to genetic resources rights excludes that this standard actually covers or refers to the NP, even indirectly.

Sustainable Feed Standard	Mentions of PIC, compensation to local communities and land/water use rights, but the scope (mainly faming practices) and the absence of references to genetic resources rights excludes that this standard actually covers or refers to the NP, even indirectly.

Table 14 - Summary of Standards Showing Similarities

Standards Without Linkages to the Nagoya Protocol	
Pro Terra Standard	This standard contains several codes which could reveal a relation with the NP (Biodiversity Protection, Land/Water Use Rights, Sustainable Development, Wild Harvesting). However, there are no provisions on negotiations with communities and no mention of generic resources rights. The most interesting link with the NP is the obligation to respect laws relevant for Wild Harvesting.
ADM-Responsible Soybean Standard	Genetic resources are not considered as well as forms of benefit sharing, the standard is out of the scope of the NP. There is simply the request of acquiring land use rights for the production of soy from local owners respecting PIC, solving any disputes before conversion.
International Water Stewardship Standard	Neither PIC or Benefit Sharing Provisions are mentioned, as well as customary rights over genetic resources. This standard clearly does not cover the NP provisions and passed the selection processes because of some forms of consultations with local communities and stakeholders.
Aquaculture Stewardship Council – Pangasius Standard	The ASC standards ask indeed to not have negative impacts over stakeholders and to conduct consultations with them. The only interesting references are on the consultation with stakeholders and disputes resolution regarding water use rights and general statements regarding resources access. No Prior Informed Consent or Benefit Sharing provisions.
Aquaculture Stewardship Council- Salmon Standard	The ASC standards ask indeed to not have negative impacts over stakeholders and to conduct consultations with them. The only interesting references are on the consultation with stakeholders and disputes resolution regarding water use rights and general statements regarding resources access. No Prior Informed Consent or Benefit Sharing provisions.
Aquaculture Stewardship Council – Shrimp Standard	The ASC standards ask indeed to not have negative impacts over stakeholders and to conduct consultations with them. The only interesting

	references are on the consultation with stakeholders and disputes resolution regarding water use rights and general statements regarding resources access. No Prior Informed Consent or Benefit Sharing provisions.
Fairtrade Climate Standard	It does mention PIC principle, in relation to every project affecting local communities and their access to resources. But no references to benefit sharing obligations or genetic resources, PIC is related to impact and not to form of ABS obligations.
UTZ - Code of Conduct	It addresses disputes over land use rights, which must be solved in mutually agreed terms but no references to ABS, PIC, benefit sharing or genetic resources.
Fairtrade Haired Labour	It mentions to land use rights and disputes over it, which must be solved with PIC. No references to ABS, benefit sharing or genetic resources.
Rainforest Alliance – Sustainable Agriculture Standard	The closer reference to the NP is Principle 4 when it is asked to protect community rights over resources from farming activities.
Soil Associations Standards – Farming and Growing	General references to Biodiversity Protection and Wild Harvesting. It Contains PIC, no references to genetic resources rights or benefit sharing obligations.
4C-The Common Code of Conduct of the Coffe Community	Only ask for PIC when it comes to land acquisition.
Sustainably Grown Veriflora - Cut Flowers and Potted Plants	No interesting quotations, only general commitment to consultation with local communities, good impact on stakeholders and to the respect of intellectual property rights of planting materials.
U.S. Soy Sustainability Assurance Protocol	Only some reference to land use rights and consultation with local communities.

Table 15 - Summary of Not Related Standards

ANNEX IV - EXTENSIVE SUMMARY

SUB-QUESTIONS' ANSWERS

The thesis aimed at offering a complete overview of how private standards cover the NP's provisions in their criteria and at revealing their full potential of in helping the NP's implementation. The main research question was then broken down in sub-questions, all addressed and answered as follows.

- *Which are the central provisions and obligations of the Nagoya Protocol?*

The historical development of the NP was presented, explaining the processes which leaded to its creation. The NP's general aspects were underlined, focusing in particular on its scope, genetic resources and traditional knowledge, and on ABS. ABS were studied dividing them in two different concepts, prior informed consent and benefit sharing obligations. The definitions, the historical evolutions and the opinion of major scholars were used to describe PIC and benefit sharing, pointing out how the NP requires different level of compliance. Users have to respect the legislation of the user country and obviously the one of the provider country. In addition, whenever indigenous community and local people are involved, they shall be consulted and prior informed consent has to be obtained from them, respecting their traditional decision making procedures and committing to share benefits derived from the access.

- *Which are the main critiques moved against the Nagoya Protocol?*

The major critiques moved against the protocol were summarized in four main categories: increased bureaucracy, slowing down of research, incompleteness and uncertainty, lack of implementation. Considering the inconsistency among different legislation, high investments are required to define ABS contracts with the provider countries, not to mention the time necessary to establish mutually agreed ABS's terms with local communities and affected stakeholders. Overall, together with liability issues, these factors have slowed down reseach

in both private and public laboratories. In addition, the NP's formulation is sometimes obscure and not easy to interpret. There is an overall feeling that many hot topics (for example gene banks) have been left aside. Finally, many countries still lack implementing measures or do not provide easily accessible information, increasing the concerns of users.

- *Considering general private standards' theories, which are the major advantages and drawbacks derived from their utilization?*

In Chapter 3, the definition of private standards has been given, through the contributions of different sources. The definition of VSS given by the UN has been identified as the most adapt for the scope of this research. The major objectives served by private standards have been presented in eight fundamental aspects: maintenance of quality and safety levels, market differentiation, compliance with public regulation, liability's shifting, pre-empting of the legislator, bridging the gap between legislations, supplement public law and even fill in void of public regulation. The major critiques moved against private standards have been presented as well and can be summarized in standards creators' lack of legitimacy, reduced competition and increased costs. The aspects underlined in this section will be used to assess VSS' potential after the content analysis.

- *How are access and benefit sharing obligations covered by private standards on sustainability?*

A research sample of thirty-one standards created using publicly available database was used to determine the extent of the NP's covering among VSS. The results showed that four standards presented direct relation to the NP, three standards had some indirect correlation and eight more showed similarities not due to the NP itself. To determine direct relation, the clear mention of ABS provisions and the NP was used as benchmark. For indirect referencing, the criteria were the mentioning of genetic resources, PIC and references to benefit sharing. Finally, standards with provisions over PIC and compensations to local stakeholders, but whose scope is related to land and water resources showed similarities but were not related to the NP. Other interesting aspects have been investigated in order to orientate the classification of the standards and to provide materials for the reflections in Chapter 5.

- *Which is the true potential of private standards in helping the implementation of the Nagoya Protocol?*

The use of VSS in implementing the NP should aim at facilitating procedures and helping the coherence of legal systems. VSS can constitute a useful instrument for all the involved stakeholders. From the point of view of users, they could increase the expertise and the information available. Then, they could rationalize public legislation's requirements, satisfying legal obligations and creating models to engage with local communities. In addition, when recognized by public authorities, they could even offer faster procedures to obtain permits. VSS could then differentiate products on the market: the marketing potential regarding biotrade is clearly unused and could be employed more efficiently. From the point of view of provider countries, private standards could sometimes complement incomplete or not enforceable legislations. Countries having difficulties in implementing their own legal requirements, could employ private standards and their auditing systems as deterrents to avoid unlawful behaviours by users. The enforcement role of VSS would also protect indigenous people and local population by users' misbehaviours. Finally, in user countries, private standards could facilitate the monitoring of genetic resources and secondary users, which acquired the right over the resources without accessing them in the first place, could shift liability to upstream chain's actors, avoiding complication that could slow down their researches.

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