The London School of Economics and Political Science

Benefit-sharing in the Brazilian Amazon: the challenges to achieving equity and fairness

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Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

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Abstract

As a signatory to the Convention on Biological Diversity and as one of the most socio-biodiverse countries in the world, Brazil has, since 2001, legally regulated access of genetic resources and traditional knowledge in the country. Despite that, there has been very little success in achieving fair and equitable benefit-sharing agreements, especially where indigenous people and traditional communities are involved in the negotiation. This suggests a grossly unjust power imbalance between users and providers of biodiversity and traditional knowledge.

This research looks into the challenges of achieving fairness and equity in access and benefit sharing (ABS) through the lens of a rights-based approach to conservation, where the right to participation, the right to prior informed consent, the right to land security and the right to culture are shown to be elements that can influence the fairness and justice of an ABS agreement. To illustrate this, a case study of an ABS contract signed between the Oriximiná 'Quilombola' (1) communities and a Brazilian university for access to their biodiversity and traditional knowledge for pharmaceutical research is analysed. The experience of this community reveals that justice and equity cannot be achieved solely according to the content of a contract, as it is generally expected. There are aspects of the negotiation process such as the community's access to information and respect for customary norms that need to be taken into account, which discussion of the rights-based approach brings to light.

The thesis evolves to a discussion of the Bailique Community Protocol, the first of its kind in Brazil, which is an innovative tool for natural resource management and community empowerment. This thesis shows how a Community Protocol can be an instrument that addresses the many challenges identified in the Oriximiná case study, thus having the potential to be used as a mechanism to support communities in achieving a fair and equitable benefit-sharing in cases of access to their traditional knowledge. By discussing and constructing their community protocols, communities are able to define their customary norms, their decision-making processes and their development priorities, enhancing the possibility of a more equal and informed dialogue with external actors interested in accessing their biodiversity and knowledge.

(1) Quilombolas are a self-defined ethnic group with specific territorial relations and an identification of black ancestry that is related to resistance to their historical oppression

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I hope to take you one day to see the forest and its people.

1- Introduction

1.1- The Use of Genetic Resources and Traditional Knowledge

Brazil is one of the most biodiverse countries in the world, with 200 thousand species registered and more than 1.8 million species yet to be studied. The country is also home to 240 indigenous tribes with 150 languages recorded and many traditional communities, such as the quilombolas, caiçaras, riverine people (Instituto Socioambiental, 2018; Lewinsohn & Prado, 2006).

This research will use the definition found in Brazilian legislation to understand traditional communities. According to Decree 6040/2007 traditional communities are culturally differentiated groups that identify themselves as such and that possess their own forms of social organization, that occupy territories and natural resources as a condition of their cultural, social, ancestral, economic and religious reproduction, using knowledge, innovations and practices generated and passed on through tradition (Presidência da República, 2007).

The high socio-biodiversity of Brazil gives the country a privileged opportunity to engage in the discussion of access to genetic resources, traditional knowledge and benefit-sharing (ABS).

The search for economically valuable natural resources and trade between countries is an activity that has been happening for centuries. Prior to the 20th century, there was the transfer of many genetic resources such as oranges, coffee, bananas, tea and cacao from developing countries to ex situ collections and botanical gardens across the world, mainly in developed countries. This was at the heart of many colonial expeditions and behind the scientific development of Europe (Crosby, 1986; Juma, 1989; Sarah A. Laird & Kerry ten Kate, 2002).

Interest in these resources has increased and spread to other areas due to the advances of biotechnology and the prospect of creating new products. It was only after 1992, with the Convention on Biological Diversity, that countries started to legislate over this trade. It is the legitimate exploration of biological material for commercial valuable properties, also known as bioprospection (Reid et al., 1993), that has given ABS the status of an activity with the potential to generate income and bring technological development to countries. The discovery of new medicines, incentives to conserve biodiversity, technology transfer and innovation, additional

sources of income for developing countries, support for traditional communities are some of the opportunities that are seen to arise from bioprospection (Reid et al., 1993; Ten Kate, 1995).

In many industries such as agriculture, cosmetics, botanicals, food and beverage and pharmaceutical, access of genetic resources, traditional knowledge and benefit-sharing as a result of bioprospection shapes many aspects of the trade and research of new products. The table below shows the importance of genetic resources for these industries.

Table 1: Industry's relationship with genetic resources

Sector	**Size of total market in 2006**	**Importance of genetic resources**
Pharmaceutical	USD 640 billion	20–25% derived from genetic resources
Biotechnology	USD 70 billion from public companies alone	Many products derived from genetic resources (enzymes, micro-organisms)
Agricultural seeds	USD 30 billion	All derived from genetic resources
Personal care, botanical, and food and beverage industries	USD 22 billion for herbal supplements USD 12 billion for personal care USD 31 billion for food products	Some products derived from genetic resources: represents 'natural' component of the market

Source: Greiber et al. 2012. pp. 4–5, based on P. ten Brink, ed., 2011: *The Economics of Ecosystems and Biodiversity in National and International Policy Making.* Abingdon, Routledge.

In the agriculture sector, the use of genetic resources is common in conventional breeding, molecular-assisted breeding using biotechnology and crop

protection, where the aims of these activities are yield improvement, yield stability under stress, quality improvement and pest protection (Wynberg, 2013b). There has been market merging in this sector, where six companies control 75% of the global agrochemical market, 63% of the commercial seed market is responsible for more than 75% of all private sector research in seeds and chemicals. This market concentration has a direct effect on the use of ABS, as these companies have become self-sufficient in genetic resources, diminishing the need to access. However, there is a growing interest in wild species for breeding, which in the long term will be relevant for ABS for farmers. This is clearer when we look at the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) which enables the exchange of specific genetic resources through an ABS multilateral system to guarantee food security and at the same time recognizes farmers' rights to be active participants in the process (Food and Agriculture Organization of the United Nations (FAO), 2009; Wynberg, 2015a).

The use of natural ingredients in the cosmetics sector has been increasing steadily since the late 90s, mainly due to consumers demand for healthier and more sustainable products. Despite growth, they represent only 7% of the cosmetics market, which in 2013 was estimated to be worth US$ 465 billion. It is important to highlight that the amount of natural ingredients used in each product is extremely low. About 75% of the so-called 'natural products' often use a very small fraction of natural ingredients with the sole aim of market purposes. In this industry marketing is essential and so natural ingredients and traditional knowledge are often used as a market tool, where the story behind the product is as important as the product itself (Wynberg & Laird, 2013b, 2015b).

In the food and beverage industry, the use of raw products, which is different to genetic resources, is predominant. However, market and technological changes have contributed to an increased use of genetic resources by a sector of this industry that works with bio-processing, biotechnology, nanotechnology and the search for new bioactive compounds for new products. Specifically in relation to traditional knowledge, it has been used by this sector as an indication of safety and efficacy and also as a lead to new compounds (Wynberg, 2013a, 2015b).

Traditional knowledge is central to the botanicals industry[1], which it depends on for the development and marketing of its products. There is a long chain of actors from access to raw material to the final product, which makes regulation and ABS difficult to achieve (Wynberg & Laird, 2013a, 2015a).

It is with the pharmaceutical industry, which is the focus of the ABS case study in this thesis, that access to genetic resources and traditional knowledge becomes more complex. The global revenue of this industry in 2011 was about US$ 955.5 billion. There has been slow growth in this sector in recent years, although in countries like Brazil, India and China there has been steady growth (In 2011 it grew by more than 20%). The demand for genetic resources in research for big companies has practically disappeared in the past years, leaving this type of research for smaller companies and university laboratories. In terms of traditional knowledge, interest in access has also been diminishing due to, among other things, changes in technology where there is a focus on working with genes rather than microorganisms (Laird, 2013). Despite this, traditional knowledge still plays an important role for ethno directed research, as will be presented in this study.

1.2- The Main Research Question and Structure of the Thesis

Despite the cyclical interest of the industry in accessing genetic resources and traditional knowledge, it is an activity that still requires serious attention from policy makers as it has a direct effect on the rights of communities involved and on the conservation of biodiversity.

The Convention on Biological Diversity (CBD) states in its third objective the need for "the fair and equitable benefit-sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding" (United Nations, 1992). This is the key to this research as it establishes the idea that benefit-sharing should be fair and equitable, despite the Convention not specifically defining these terms.

For indigenous people and traditional communities this is significant because they are responsible for protecting traditional knowledge and often are the ones

[1] botanicals: plant based products that are used as medicine or to promote wellbeing. Also known as phytomedicine, herbal medicine, supplements, etc.

managing the resources. Article 8(j) of the CBD affirms the need to respect and protect their knowledge, it recognizes the community's role in the conservation of biodiversity and acknowledges their involvement in fair and equitable benefit-sharing (United Nations, 1992). Thus, benefit-sharing contracts are usually celebrated with these communities.

This thesis is concerned with understanding the elements that can contribute to achieving a fair and equitable benefit-sharing agreement from access to genetic resources and traditional knowledge, specifically where communities are involved. How to guarantee that fairness and equity are respected?

Legislation related to ABS provides a structure to lead this discussion, where definitions of key concepts are outlined, right holders and duty bearers are identified and the steps for access and benefit-sharing are defined. Chapter 2 looks specifically at international and Brazilian norms that discuss access to genetic resources and traditional knowledge. The Convention on Biological Diversity (CBD) and the Nagoya Protocol are central to this discussion.

The CBD established the understanding that nations have sovereignty rights over their natural resources, which changed the dynamic of how to access biodiversity. Once resources no longer belong to the whole of humanity, as was previously understood, nations then acquired rights and responsibilities when managing these natural resources and national jurisdiction started to play a role in how these resources could be accessed by both nationals and outsiders (Carrizosa, Brush, Wright, & McGuire, 2004; Sarah A Laird & Kerry ten Kate, 2002).

This change of understanding of natural resources ownership that is defined with the CBD set the legal basis for benefit-sharing that can happen between states and/or with communities (Morgera & Tsioumani, 2010). The effectiveness of the CBD relies entirely on the development of national legislation that can implement its decisions. With the burden of legislating lying with the provider countries (usually developing countries), the need arises for the user countries to share some of the responsibility in ABS. The Nagoya Protocol, which focuses on the third objective of the CBD, is agreed on as an answer to the need for an international ABS agreement where both user and provider would need a legal framework to guarantee the fair and equitable benefit-sharing arising from the use of genetic resources and traditional knowledge.

Brazil is a signatory of both norms and as such needs to comply with its

regulations. Since 2001, access to genetic resources and traditional knowledge in the country has been regulated by Provisional Measure 2186. In 2015, this legislation was substituted by Law 13.123 that brought significant changes to the way ABS happens in Brazil. As will be discussed in chapter 2 there was expectation the new law would be an improvement on the Provisional Measure, however, in many aspects this law violates many acquired rights of indigenous and traditional communities. Specifically relevant to this thesis is the Provisional Measure, as most cases of access in the country have been regulated by this norm, including the case study used to illustrate the discussion of fairness and equity in an ABS agreement.

The Convention on Biological Diversity and the Nagoya Protocol set up a scenario where the access of genetic resources and traditional knowledge is linked with a process of benefit-sharing that must be fair and equitable. However, achieving a fair and equitable benefit-sharing agreement can be very challenging. The literature shows that this can be due to the lack of participation of communities (Swiderska, 2001; Torri, 2009), limited national legislation (Dávalos et al., 2003; Suneetha & Pisupati, 2009) or even high expectations from communities of financial returns (Greene, 2004).

While these can have an impact on the implementation of ABS agreements, this research looks specifically into the role of rights in this debate. To this end, Chapter 3 looks at the rights based approach (RBA), which is used to analyze equity and fairness in these agreements. Most commonly used in the development discourse, recently the RBA has been applied in relation to conservation activities, as there has been recognition of the mutual and reciprocal relationship between human rights and conservation. The RBA to conservation can be understood as 'integrating rights norms, standards, and principles into policy, planning, implementation, and outcome assessments to help ensure that conservation practice respects rights in all cases, and supports their further realization where possible' (Campese, Sunderland, Greiber, & Oviedo, 2009).

This thesis takes the discussion of rights and conservation and adapts it to the discussion of benefit-sharing, proposing a RBA framework that can identify how the fulfilment of certain rights can increase the possibility of achieving a fair and equitable benefit-sharing agreement. A 4 step-guideline is proposed as an analytical tool to use in the case study, where there is an evaluation of the ABS scenario, the assignment of rights in a scale of fulfilment, a definition of the dimension of rights

(costs, type of participation and decision-making, level of information sharing, accountability and transparency, land security, culture and traditional knowledge) and a discussion on power and rights.

It is through this guideline that the right to be consulted (free, prior and informed consent), the right to participation, the right to information, right to culture (to maintain their traditional knowledge and recognition of customary norms), and right to land security, which are rights identified as relevant to ABS, will be analysed in relation to the main case study.

In order to carry out this analysis, this research uses ethnography as a method to collect data, where interviews, participant observation and a field diary are used to gather information. Chapter 4 describes this methodology, describing the process of entering the communities of Oriximiná and Bailique and the challenges faced in the process.

Specifically in relation to the Bailique case study, the thesis uses elements of the practitioner ethnography methodology, as I was directly involved in the construction of the Bailique Community Protocol and therefore have a deep relation to the whole process. Practitioner ethnography is often used when the researcher is in the field and therefore is directly involved with the topic investigated (Barton, 2008).

The access to genetic resources and traditional knowledge of the communities of Oriximiná is used as the main case study in order to analyse how the respect for rights has the potential to play a role in the fairness and equity of the benefit-sharing agreement. These communities are 'quilombolas', which is described by Brazilian legislation as a self-defined ethnic group that have their own history, specific territorial relations and a presumption of black ancestry that is related to resistance to the historical oppression suffered by them (Presidência da República, 2003). Together, these communities form a 'quilombo', which is the settlement where the 'quilombola' people live.

The quilombo of Oriximiná is located in an area of high biodiversity in the Brazilian Amazon, where they have been sustainably managing local natural resources used for food, shelter and medicine for more than a century. As described in Chapter 5, these communities face numerous challenges, which are a threat to both their wellbeing and their territory. The quilombo of Oriximiná (i) still lacks full control of their territory due to the lack of land title; (ii) has a big mining company in their land with plans to expand to other parts of their territory; (iii) a logging

operation which has been causing distress to many local people; (iv) a national plan to build hydroelectric dams in their territory and (v) communities have signed a benefit-sharing contract with the Federal University of Rio de Janeiro for the access of their genetic resource and traditional knowledge used for respiratory and central nervous diseases, which is the main case study in this thesis.

The little literature available on this bioprospection contract suggests that this is a relevant case study as it is the first bioprospection agreement in Brazil to access genetic resources and traditional knowledge, it followed correct legal procedures such as acquiring local consent and producing an anthropological report, and according to the articles there was appropriate contact with the community (Kishi, 2009; Santilli, 2009). However, there has not been a detailed study of this ABS case, other than published by the University researcher, which is arguably biased (Oliveira, 2009; Oliveira et al., 2011; Oliveira, Leitão, O'Dwyer, Leitão, & ARQMO, 2010).

Having this ABS contract as its main case study, this thesis provides a critical analysis of this specific ABS agreement, identifying several pitfalls and challenges of this access that have not previously been looked at in the literature. This is extremely important for the national discussion on ABS because a case that is generally understood to be successful in the eyes of the government and the bioprospector is shown in this thesis to have important challenges which need to be overcome to be considered fair and equitable benefit-sharing (as proposed by the CBD). Also, considering the country has recently adopted new legislation on access (Presidência da República, 20 de Maio de 2015) seen by many as a throwback, this analysis is a contribution to the national debate on how to implement an ABS system in the country that respects the right of traditional and indigenous communities.

Chapters 6 and 7 discuss how respect for the rights that have been previously identified can have an influence on the fairness and equity of the benefit-sharing contract in Oriximiná. The right to be consulted, the right to participation and the right to information are discussed in Chapter 6. The decision-making process of the community, their representational structure and the role of their local associations are all looked at in order to highlight how dialogue with the University unfolded and how these rights played a role in the final benefit-sharing contract.

In Chapter 7 the remaining two rights are discussed: the right to land security and the right to customary norms. It is relevant to point out that these rights do not often appear in the discussion of ABS, however, as will be presented, they are

significant to guaranteeing that fairness and equity is considered in the ABS. The relationship that territory and culture has with biodiversity conservation is key to understanding how these rights are relevant for a discussion of access.

Both chapters make use of the four-step guideline to evaluate whether the process of access and benefit-sharing respected and fulfilled the rights described. Throughout the empirical chapters, there is a discussion of justice and how that can be achieved in cases of ABS. In the example of the Oriximiná quilombo, the ABS contract has an equal share of the benefits between the University and the communities. In terms of monetary benefits, this is certainly better than most contracts in Brazil and for many this would mean a just and equitable agreement. However, this thesis reflects on whether other elements such as the process by which the access happens and the respect for customary norms should not also be considered, in order to have truly fair and equitable benefit-sharing as proposed by the Convention on Biological Diversity.

The many challenges outlined in the case study of the Oriximiná quilombo raises questions of what would be a more appropriate path to achieving fair and equitable benefit-sharing and whether there is any practical example in the country that could serve as a guideline. This debate is presented in Chapter 8, which looks into the development of the Bailique Community Protocol. A Community Protocol is the codification of the customary norms of the community, defining procedures, criteria, and tools for territorial management and the use of biodiversity. It is an instrument for natural resources management and community empowerment (Grupo de Trabalho Amazônico, 2014) .

This chapter then looks into the construction of the first community protocol in Brazil developed in the Bailique communities in order to understand how it can contribute to the discussion of ABS in the country. It is important to point out that this is not a comparative study because there has not been access to genetic resources and traditional knowledge in their territory. In this way, the Bailique Community Protocol was not developed in relation to an ABS, but was a local strategy to gain more control over their territory. The relevance of this experience is that the methodology used for the construction of this protocol is based on the rights discourse and as such creates a scenario where communities become empowered to have a more equal dialogue with external actors. Community protocols have the potential to be an important tool to support communities in achieving fair and equitable benefit-sharing in cases of access

to their biodiversity and traditional knowledge.

It is through these two case studies (Oriximiná and Bailique) that this research is able to bring new elements to the discussion of fairness and equity using a rights-based approach. Chapter 9 is going to look at some of the lessons learned and how they could be relevant in the current debate of how to ensure the rights of indigenous people and traditional communities with new Biodiversity Law 13.123.

This new legislation has brought significant changes to the process of accessing genetic resources and traditional knowledge in Brazil, however it is still early to fully evaluate how this new legislation will relate to the many rights involved in an ABS. This thesis has the potential to contribute to the national shedding light on the challenges faced by both communities and bioprospectors during benefit-sharing agreements.

In terms of the contribution to knowledge of this research, it is possible to highlight three areas of influence. First, this research adapts the rights-based approach to the discussion of access and benefit-sharing, using a set of specific rights and a specific framework (the four-step guideline) to direct the debate of fairness and equity. Second, despite acknowledgement of the literature that the ABS case in Oriximiná was a success, this research questions this conclusion by making a deep analysis of how access happened in the community, whether rights were respected in the process and how that had an effect on the fairness and equity of their benefit-sharing contract. Thirdly, the identification of rights as the base of the methodology to construct Community Protocols contributes to the debate on how to have a more balanced relationship between community and bioprospectors, facilitating the fulfillment of the third objective of the CBD.

2- National and International Norms of ABS

2.1- Introduction

Access to genetic resources and traditional knowledge, which can result in a benefit-sharing agreement, is a relatively new discussion in the international and

Brazilian legal context. There have been two major international agreements[2] that attempt to regulate access to genetic resources, traditional knowledge and benefit-sharing (ABS): the Convention on Biological Diversity (CBD) and the Nagoya Protocol. As for the Brazilian scenario, Provisional Measure 2.182 regulated ABS activities in the country until 2015, when the first law on this matter (Law 13.123/2015) was voted through in Congress.

The first section of this chapter is going to look at the CBD, that has as its main objective the conservation of biological diversity, its sustainable use and equitable and fair benefit-sharing arising from the utilization of genetic resources (United Nations, 1992). Conservation of biodiversity is at the core of this Convention, and the role played by indigenous and traditional people in this respect is one of the highlights of the CBD. Through article 8(j) the Convention guarantees their participation, recognizes the value of their knowledge and states the need for sharing benefits with them (Nijar, 2013). In this way, the concept of free, prior, informed consent (FPIC) and traditional knowledge are central to this Convention and its implementation.

The second section looks at the Nagoya Protocol as an international treaty that comes as a response to the need to implement the third objective of the CBD. Despite many global experiences of access and benefit-sharing [3] there is a systematic failure to ensure a fair and equitable benefit share and in the process protect and guarantee the rights of indigenous people and traditional communities. The Nagoya Protocol, being an international binding agreement, creates a structure where both users and providers of genetic resources and traditional knowledge have shared responsibility for access and benefit-sharing.

After considering some of the changes brought by the Nagoya Protocol and its challenges, the chapter will look at the Brazilian legal scenario, considering the country as a signatory of both the CBD and the Nagoya Protocol, although Brazil has not yet ratified the Protocol. Specifically regarding the decisions taken by the CBD, the Brazilian State must implement those actions at national level. From 2001 to

[2] The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is also concerned with access and benefit-sharing, but its focus is on plant genetic resources for food and agriculture. This international treaty will not be discussed in this thesis.

[3] Some examples: access of fauna and flora from the Queensland ecosystem, from China (collection of 2000 species), New Papua Guinea (1500 species), Tasmania (marine collections of 1600 samples), India (collection of 1800 strains of soil fungi), from Kenya (microorganisms), from Ethiopia (tef species), from Brazil (breu branco) (Secretariat of the Convention on Biological Diversity, 2008), marine organisms from the Philippines (Dávalos et al., 2003), biodiversity samples from Russia (Marthur, 2004), among others.

2015, Brazil had Provisional Measure 2.186 that regulated access to genetic resources and traditional knowledge in the country. Benefit-sharing agreements occurred under this legal umbrella, such as the access in the quilombo of Oriximiná, which is the main case study of this thesis. Thus, this chapter devotes a large section to understanding this provisional measure and how it has influenced the way access happens in the country. In May 2015 however, the provisional measure was substituted by a controversial law, and this chapter is going to conclude by looking at why it is such a contentious piece of legislation and what are the main changes it is bringing to the ABS debate.

2.2- The Convention on Biological Diversity

It was during the 1992 United Nations Conference on Environment and Development (UNCED), also known as the Rio Summit, that the Convention on Biological Diversity (CBD) was opened for signing, entering into force in December 1993 with 168 signatures. This Convention was an answer to the growing awareness around the untapped value of biodiversity in the face of its unprecedented destruction.

For Hannigan (1997) the recognition of biodiversity loss as a global problem was influenced by three main factors: the development of international treaties dealing with different aspects of biodiversity, the growing importance of biotechnology and the emergence of conservation biology as a subject, which provided a space for research on biodiversity. Thus, in the 1970s there was the enactment of a series of treaties such as the Convention on Wetlands of International Importance, especially the Waterfowl Habitat in 1971, the Convention Concerning the Protection of the World Cultural and Natural Heritage in 1972, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1973 and the Convention on Conservation of Migratory Species of Wild Animals in 1979, creating an international space for research and coordination between regions and countries (Hannigan, 1997).

At the same time, the increased importance of biotechnology in the 80s, which involved a variety of sectors such as pharmaceuticals and agriculture, contributed to allocating financial value to genetic resources through intellectual property rights, putting into evidence the value of biodiversity (Hannigan, 1997; Secretariat of the Convention on Biological Diversity, 2008). Despite the collapse of the boom market

for this sector in 2001, the biotechnology industry remains an important sector. During 2016, the overall revenue for publicly traded US and European companies reached a record US$ 139.4 billion and big investment in R&D, with expenses growing 12% to US$ 45.7 billon, demonstrating willingness to invest in this sector (EY, 2017).

In this way, the realization by developing countries that there was potential value in their biodiversity, and yet that it was only explored by developed nations through patents was essential to creating the basis for the CBD. The recognition of State sovereignty rights over natural resources instead of a common good created the need for national legislation to protect local biodiversity.

Before 1992, there was an understanding that natural resources were part of human heritage as they could bring innumerable benefits to humanity, such as in the case of the discovery of new medicines, new products for industries as with the cosmetics sector and an increase of genetic diversity. The understanding was that there should be free access to these resources as they could potentially bring benefits to many. However, the reality was that products derived from this socio-biodiversity were being protected by patents and were part of a private property system, which restricted access to these goods and cost money to countries interested in acquiring them. These final products benefited humanity and yet the logic of protection was very different (Azevedo, Lavratti, & Moreira, 2005; Carneiro da Cunha, 1999). One should be common property while the other was protected by private law.

This incongruence in protection reinforced the south/north difference as biodiversity-rich countries were mostly developing nations, whereas technology-rich countries were the developed ones. In order to address this imbalance, the Convention on Biological Diversity proposed that nations should have sovereignty over their natural resources, changing in this way the dynamics of how to access the biodiversity of these territories. By recognizing these sovereign rights, access to biodiversity and traditional knowledge had to be subjected to national jurisdiction and would no longer be considered a common good (Carrizosa, Brush, Wright, & McGuire, 2004; Laird, 2002).

The Convention is then an international agreement that works directly with the need to conserve biological diversity. However, unlike other international treaties that deal with one species or one biome, the CBD is concerned with a broader view of conservation and diversity: species diversity, genetic diversity and ecosystem

diversity. This diversity is associated with its economic and social value. Hence, the Convention has three main objectives: the conservation of biodiversity, its sustainable use and the fair and equitable sharing of benefits arising from the use of genetic resources (Greiber et al., 2012; United Nations, 1992). Through these objectives, the Convention reaffirms the importance of conserving and sustainably using natural resources, but with awareness about the potential economic value of genetic resources and the need to compensate countries that have sovereignty rights over these biological resources.

In order to achieve these objectives, the CBD sets guidelines through which key concepts are defined and that will serve as the basis for countries to translate this Convention into national legislation. There are two key terms that we will look closely at as they will be important for the analysis of the case study: free, prior informed consent and traditional knowledge.

(i) Free, Prior, Informed Consent (PIC)

The CBD puts 'prior informed consent' as an important step where there is access to genetic resources and traditional knowledge. The Convention stipulates that biodiversity providers, who are usually the organization/person that have the legal title to the land, should give their consent prior to granting access. Consent should also be given in cases of resources that are accessed from indigenous or traditional communities' territories or when knowledge and innovations are used. It is important to remember, however, that the CBD makes a general statement about consent and leaves it up to States to regulate the relationship between communities and their right to give or deny consent (Santilli, 1997).

Despite the lack of specific guidelines on how to acquire consent, this becomes a key aspect in the discussion of access and benefit-sharing (ABS). It is particularly important to indigenous and traditional communities who can use prior informed consent as a tool for self-determination, where their culture and traditions would be respected and protected, and where they would have the right to deny access if they so wish (Kishi, 2004).

The principle of free, prior, informed consent requires careful attention, as it should embrace aspects of the consultation process.. It should guarantee that relevant information is shared with communities so they can fully participate and be involved

in the process, but also that the other party is informed of and respects existing cultural differences. The process of consent needs to be applicable to the difference that exists between communities and users of biodiversity (Castilho, 2003). In this context, it is relevant to underline the fact that consent should be an authentic action, and not the mere signing of a consent form. In this sense it should aim to include the exchange of necessary information and guarantee the effective participation of communities (Kishi, 2004).

According to Firestone (2003), informed consent should at least involve the description of the activity proposed and the risks associated with it. Other information that could also be part of the consent document is (i) the methodology of the project developed, which should give detailed information about the resources accessed and location of access; (ii) the possible consequences of the project and of the benefit-sharing; (iii) indication from the start of the access about the benefit-sharing agreement; (iv) sharing with the community all new discoveries of the research, giving in this way more community control over the process; (v) clarification of any commercial use of the product, and (vi) informing the community that they have the right to deny access of genetic resources and traditional knowledge.

Looking at the process of acquiring consent and what it should entail is as important as the consent document. The process should happen in the native language so as to allow all community members to understand the process, and consent should be given by the community and by all those involved in the negotiation (Firestone, 2003). Indeed the issue about who should give consent is an important one, especially if there is access to traditional knowledge. Despite knowledge normally being collective, there are occasions in which a specific group in the community has this knowledge such as women or an indigenous leader. There are also circumstances when knowledge is shared among more than one community. Who should then be responsible for granting consent is an important question to raise during the process of acquiring it (Bensusan, 2005). Within this same logic, it is important that all community members are notified about the consent, making communication clear and avoiding internal conflicts; and that they should be told about new discoveries and involved in all phases of research. But, more importantly, there should be respect for their traditional systems of representation and organization in order to guarantee that there is legitimate participation of the community in the consent and that it respects their traditional ways of living (Firestone, 2003). This is certainly very difficult

considering each community has its own social organization, but it is essential that a consent process respects this local diversity, if it is to be considered legitimate and just.

In the same way the CBD leaves open the details of how consent should be given, it also does not make it compulsory for users to acquire prior consent before access, leaving the obligation loose in its present provision. Article 15 (5) states that consent should happen prior to access 'unless otherwise determined by that Party' leaving open the possibility for the provider state not to make PIC necessary in any access. By the same logic, the authority to access genetic resources also lies with national government and is subjected to national legislation, as stated in Article 15 (1). Hence, although PIC has become an important concept in ABS, the CBD was not able to make it compulsory for both parties, leaving it open for all kinds of local interpretation (Greiber et al., 2012; United Nations, 1992).

(ii) Traditional Knowledge

Article 8(j) of the Convention brings to light the importance of protecting, respecting and valuing indigenous and local knowledge that is relevant for conservation and sustainable use of biodiversity. It also states the need for their approval and involvement for the use of that knowledge, encouraging the equitable sharing of benefits arising from this use (United Nations, 1992). It is here that a link, albeit superficial, is made between traditional knowledge and genetic resources.

Traditional knowledge has an important role in the discussion of access to genetic resources because it can support scientific discoveries and the development of new products in different industries. The personal care and cosmetic industry, for instance, is one sector that relies on traditional knowledge for the development of new products. In Brazil, for instance, the cosmetics company Natura plays a leading role in using the knowledge of traditional communities to develop new products using Brazilian biodiversity in their composition, and the company's experience with communities has influenced the development of Brazilian ABS legislation. It is interesting to see that traditional knowledge has become one of Natura's main marketing tools with the creation of the 'EKOS' line in 2000, that uses Brazilian biodiversity often associated with local knowledge (Secretariat of the Convention on Biological Diversity, 2008). One of its best known cases of access to traditional

knowledge is with the Iratapuru Extractive Community in the state of Amapá, where Natura uses the Brazil nut (*Bertolethia excels*), copaiba oil (*Copaifera spp)* and the breu branco (*Protium pallidum*) in its products, all of which are extracted from the Iratapuru territory. They have, due to this, entered into a benefit-sharing contract for access to genetic resources and traditional knowledge (Secretariat of the Convention on Biological Diversity, 2008; Tourneau & Greissing, 2010).

With the pharmaceutical sector, the relationship with traditional knowledge is more complex, despite the understanding that local knowledge can lead to new discoveries and speed up research for new medication. There are several ways of selecting plants for pharmacological screening, such as the random approach, which involves the collection of plants from a determined area without any specific selection process; the chemotaxonomic approach that studies plants of a specific family or genus that already has one phytochemical identified in at least one species; and the ethno-directed approach, which is the selection of plants according to local knowledge usage and that takes into consideration traditional systems of health and illness, where the therapeutic use of the plant in the community is eventually translated into time and money saving in researching new medication (Albuquerque & Hanazaki, 2006; Maciel, Pinto, Veiga, Grynberg, & Echevarria, 2002).

There are several studies that show that the ethno-directed approach has better results than the random approach, such as the study of anti-mycobacterial activity of plants in the Oriximiná quilombo, where results were 50% active for ethno against 16,7% for random approaches (Oliveira, Leitão, et al., 2011), the study on Sinai plants, where 83.3% of the plants collected through the ethno-approach had antimicrobial activity against 41.7% collected randomly (Khafagi & Dewedar, 2000) and the research on potent relaxants of vascular smooth muscles, where 12.9% of ethno sampling showed activity while none of the random sample provided relaxation (Slish, Ueda, Arvigo, & Balick, 1999). These are only a handful of examples. It is possible to identify many other studies that have demonstrated the advantages of an ethno approach (L. H. Carvalho & Krettli, 1991; Farnsworth & Kaas, 1981; Oliveira et al., 2012; Spjut & Perdue, 1976), corroborating the value given to traditional knowledge in pharmaceutical research (Albuquerque & Hanazaki, 2006; Cox & Balick, 1994; Etkin & Elisabetsky, 2005; García, 2010; Heinrich & Gibbons, 2001).

It is within this context that ethno-pharmacology appears as a multi-disciplinary subject that works with areas of social and medicinal sciences, having been most

commonly identified as a search for active compounds in indigenous and traditional medicines that can be used in commercial drugs (Etkin & Elisabetsky, 2005). Traditional knowledge on medicinal plants has historically given a lead to scientific research resulting in new medication and/or extensive research on an illness. The synthetic muscles relaxant drug used during surgeries, called 'atracurim', is one example, as it is a result of research with the 'curare', a poison used by certain indigenous tribes in South America during hunting to kill animals through paralysis. The 'curare' and its effects were extensively studied during the late 1800s, but it was only in 1947 that scientists were able to isolate the chemical compound which led to the development of the medication 'atracurim' (Heinrich & Gibbons, 2001). More recent examples include the current clinical trials of the HIV antiviral compound 'prostratin', which was initially identified by researchers working with traditional healers in Samoa in the 80s (Cox & Balick, 1994; Hezareh, 2005; Miana, Riaz, Shahzad-ul-Hussan, Paracha, & Paracha, 2015) and the appetite suppressant developed after the Hoodia species, used by the San peoples in Southern Africa for many centuries and patented by South Africa's Council for Scientific and Industrial Research (CSIR) (Vermeylen, 2007; Wynberg, 2004).

Some scientists would argue that with the advance of synthetic molecules, traditional knowledge does not have much to contribute to science because technology has allowed for the testing of many substances without the aid of traditional knowledge. Furthermore, there are claims that even when traditional knowledge leads to the finding of a specific active principle, they are rarely used for the same traditional use. An example was the confirmation of an anti-diabetic property found in the native plant Rosy Periwinkle (*Catharanthus roseus)* from Madagascar, which was traditionally used for diabetes, but during research was found to contain other substances that helped treat child leukaemia and Hodgkins Lymphoma, resulting in a patented medication for these specific anti-cancer uses. As the plant was not used traditionally for cancer treatment, scientists did not acknowledge the role played by traditional knowledge in this access, meaning that there was no benefit-sharing with the knowledge holders (Carneiro da Cunha, 2009a).

This utilitarian view of traditional knowledge is counterbalanced by the importance that knowledge has for the cultural and spiritual survival of communities, who are in turn directly responsible for the conservation of biodiversity (Mauro & Hardison, 2000). For instance, the idea of the Amazon forest as a pristine area without

human interference has been a very popular image of that region. However, many studies show that humans have been living in the Amazon from early Holocene times and consequently have been changing the environment through plant domestication, which started as early as 8000 BP (Before Present), and soil transformation (Amazonian dark earths) with an estimate of approximately 85 native woody species of plants having been domesticated by the time of European contact. Also, the prevalence of 20 species of these domesticated plants in the group of hyperdominant species, is five times higher than the number expected by chance, pointing to the role played by humans in spreading these species and therefore contributing to the forest's biodiversity (Balée, 1993; Clement et al., 2015; Levis et al., 2017). The role of traditional knowledge is clear in this scenario.

It is important to understand that biological diversity is not stagnant and can change according to different interactions. Hence, programmes for *ex situ* conservation can only provide a limited response to the crisis of biodiversity's destruction. It is necessary to protect the diversity of species *in situ,* with the aid of traditional communities who can contribute to increasing the diversity and protection of natural resources. In this scenario, traditional knowledge plays an essential role as it is directly linked to their territory and to practices of natural resource management (Coombe, 2001).

In this discussion of the role and value of traditional knowledge, one of the most common assumptions is that traditional knowledge is static and remains unchanged throughout generations. On the contrary, traditional knowledge is constantly changing and adapting to new conditions imposed on communities. As Cunha (1999) clarifies, it is traditional not because it is an old form of knowledge but as a 'specific format to practice science' (Carneiro da Cunha, 1999, p. 157).

This leads to a debate about the difference between traditional knowledge and western science, a discussion that has the potential to influence how people understand benefit-sharing agreements, as the value given to traditional knowledge forms the basis of many ABS contracts. In fact, a higher value is usually attributed to western science compared with traditional knowledge, as often there is a belief that science conveys the 'truth', whereas traditional knowledge is supposedly based on myths and untested local beliefs. This is partly a reflection of the feature of universality that is given to western science whereas traditional knowledge accepts

that the truth can be different in different places, as each set of knowledge is a reflection of its locality (Carneiro da Cunha, 2009a).

Lévi-Strauss (1966) states that traditional knowledge and scientific knowledge, although different, are based on the same logical operations and are not in different stages of development. According to him 'there are two distinct modes of scientific thought. These are certainly not a function of different stages of development of the human mind but rather of two strategic levels at which nature is accessible to scientific enquiry: one roughly adapted to that of perception and the imagination: the other at a remove from it. It is as if the necessary connections which are the object of all science, neolithic or modern, could be arrived at by two different routes, one very close to, and the other more remote from, sensible intuition' (Lévi-Strauss, 1966, p. 15).

There are many differences between these two types of knowledge. Traditional knowledge has a collective nature, reflecting in this way the norms and values of the community. This knowledge is passed on through generations, usually orally, and it adapts according to needs. Western science, on the other hand, is presented in a written format and is protected by the privatization of knowledge, for instance through patents (Little, 2010). Furthermore, traditional knowledge is characterized by being qualitative and based on data that is generated by the users and not by an expert group. Their knowledge is derived and validated by practice and activities (Castilho, 2003).

According to Cunha (1999) 'the value of local knowledge is only now starting to be recognized by the market. But it has its own value that is independent of it being correct. This value is precisely in its difference (…) from other forms of doing science'[4] (Carneiro da Cunha, 1999, p. 159). If we look at one specific sector, for instance the field of medicine, traditional knowledge has an important role to play in many communities. In India, 65% of people have access to traditional systems of medicine and in Africa, 80% of the population uses traditional medicine[5] (The World Health Organization). The ratio for traditional healers to the African population is 1:500 while the ratio for medical doctors is 1:40,000, which reflects the importance of

[4] My translation

[5] The WHO defines traditional medicine as the sum total of the knowledge, skill and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness (The World Health Organization, 2013, p. 15).

traditional healers as health providers in these countries (Abdullahi, 2011). Considering this scenario it is possible to envisage the potential that exists for finding new useful molecules through traditional knowledge. Usually, in the discussion of drug discoveries, the hope is that research on plants used by traditional medicine systems will identify active compounds that will be eventually used in western medicine.

Nevertheless, the identification of a specific molecule through the lead of traditional knowledge should not in itself define the value and importance that this knowledge might have for western science. The relationship between traditional knowledge and discoveries of new molecules is always more complex than expected. Elizabetsky (2007) argues that considering traditional knowledge is a reflection of a specific culture, it is necessary to consider that there are different understandings of diseases and health that have an influence on traditional knowledge and therefore should be taken into account in the research process. As Cunha (2009) explained, it is not about validating traditional knowledge according to western science, but about the recognition that traditional practices influence the innovation of western science. In other words, Elizabetsky (2007) suggests that 'a thorough understanding of traditional medical concepts of health and disease in general and traditional medical practices in particular, can lead to true innovation in paradigms of drug action and development' (Elisabetsky, 2007, p. 462).

When considering the practicability of valuing traditional knowledge in a case of ABS, the scenario can also be complex because knowledge can be shared among many communities, sometimes from different countries, or knowledge might be diffuse, meaning it is in the category of public domain and it is not possible to identify the origin of that knowledge (Bensusan, 2005; Greiber et al., 2012). All this creates difficulty when looking at access to traditional knowledge and benefit-sharing since ownership of knowledge is not always clear.

2.2.1- Access and Benefit-sharing- ABS

The idea of access and benefit-sharing (ABS) is at the centre of the CBD as part of its third objective, which identifies the need for fairness and equity in benefit-sharing. Despite this, the Convention does not provide a blueprint on how to achieve this, leaving the details to be decided by national jurisdiction. There are provisions for

prior informed consent and respect for mutually agreed terms when discussing access and benefit-sharing, but the Convention stipulates that ABS contracts should be between the providers and the users of genetic resources, leaving these parties to decide on the details of the agreement on benefit-sharing (Ruiz & Vernooy, 2012; United Nations, 1992).

It was the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits arising out of their Utilisation, adopted by the CBD Conference of the Parties in 2002, that became one of the main instruments to discuss ABS. The Bonn Guidelines aimed to provide governments with a clearer structure and mechanism to implement fair and equitable benefit-sharing in their countries. It became a guide for the development of national legislation and internal policies related to ABS as it identified responsibilities and obligations of users and providers of biodiversity, it identified basic principles of prior informed consent and the basic requirements of the mutually agreed terms in an ABS (Secretariat of the Convention on Biological Diversity, 2002). However, the Bonn Guidelines are a weak mechanism because they have a voluntary status, not having the necessary strength to guarantee that States will implement recommendations (Ferreira, 2010; Kamau, Fedder, & Winter, 2010; Koutouki, 2011).

Despite being at the core of the CBD, there has been a consistent failure to implement ABS mechanisms that will respond to the need of both providers and users of biodiversity, and more importantly, an agreement that will be fair and equitable as proposed by the Convention. Hence, the Nagoya Protocol came as an international attempt at a binding agreement to direct efforts to implement the third objective of the CBD.

2.3- The Nagoya Protocol

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, hereinafter the Protocol, is an international binding legal agreement adopted in 2010 that entered into force in October 2014, after the fiftieth country ratified the Protocol. This Protocol is a response to the need for further implementation of the third objective of the CBD and aims to promote fair and equitable benefit-sharing, contributing to the conservation and sustainable use of

biological diversity (Convention on Biological Diversity, 2010, 2016). The 10th Conference of the Parties, where the Nagoya Protocol was discussed and approved, happened in a context where despite the many international treaties and agreements protecting biodiversity, the rate of destruction of natural resources was still very high (Aubertin & Filoche, 2011).

In 2002, the Parties of the Convention on Biological Diversity agreed on targets to reduce the loss of the world's biodiversity by 2010. These targets were approved during the Rio +10 Summit in Johannesburg as well as by the United Nations General Assembly. There was, therefore, a global commitment to reducing the unsustainable use of biodiversity by 2010. Despite the involvement of the world's governments and an apparent increase in conservation efforts, studies presented a gloomy picture of the biodiversity condition. According to the Global Biodiversity Outlook Report (Secretariat of the Convention on Biological Diversity, 2010), of the 21 sub targets that were proposed in 2002, none had been definitely met by 2010. The report showed that there was a continued decline in genes, species and ecosystems, where the extinction rate of certain species was increasing (i.e. decline in population of 42% of all amphibian species and 40% of bird species), there was an increased loss of natural habitats (i.e. 73-83% of bird and butterfly species were threatened due to conversion of forest into palm plantations), fragmentation of forests and decrease of genetic diversity in crops (in China, for instance, the number of local rice varieties were 1,000 in 2006 in comparison to 46,000 in the 1950s).

According to the report, habitat loss, climate change, excessive nutrient load, over exploitation and invasive alien species were the direct reasons for the reduction of biodiversity on the planet (Secretariat of the Convention on Biological Diversity, 2010).

Also, taking into consideration the role played by traditional knowledge in biodiversity conservation and management of natural resources, there was concern about the rising trend in the disappearance of indigenous languages, where some projections showed that more than half of the worlds' languages could be extinct within the next hundred years (UNEP, 1999). For instance, in Mexico, between 1970 and 2000, 16 of 24 indigenous languages spoken by fewer than 1000 people lost speakers and 20 languages from Artic indigenous people have become extinct since the 19th century, 10 of which were extinct after 1989, showing an alarming acceleration of the extinction rate (Butchart et al., 2010; Secretariat of the Convention

on Biological Diversity, 2010).

It was within this scenario of constant erosion of biodiversity and threats to indigenous peoples that the Nagoya Protocol was approved. By focusing on the further implementation of the third objective of the CBD, the Protocol increases the chances of biodiversity conservation and its sustainable use, allowing traditional knowledge to play an important role in the process (Convention on Biological Diversity, 2010). The Protocol becomes, then, an important instrument in the fight to protect biological diversity.

Since the enactment of the CBD, there has been very little progress in the establishment of benefit-sharing schemes. As the Convention did not provide for specific guidelines on the implementation of ABS, national legislation of provider countries became the main instrument to ensure systems of fair and equitable benefit-sharing. And as mentioned previously, the Bonn Guidelines were insufficient to ensure the implementation of fair and equitable agreements. Furthermore, one of the criticisms of the Bonn guidelines is that they were more concerned with how mechanisms developed by provider countries could ensure a fair and equitable benefit-sharing and much less on the responsibility of the user states (Kamau et al., 2010; Koutouki, 2011).

The Nagoya Protocol therefore looks closely into ways of implementing ABS, but it brings the possibility of shared responsibility between provider and user countries in relation to access to both genetic resources and traditional knowledge. Both articles 15 and 16 of the Protocol state that countries need to take appropriate measures (legislative, administrative or policy-related) to ensure that access to genetic resources and/or traditional knowledge happens after prior consent of relevant parties and respect for the mutually agreed terms (MAT) (Convention on Biological Diversity, 2010; Greiber et al., 2012). This is extremely important because the development of products and technology arising from the access of genetic resources and/or traditional knowledge often happens in the territory of user states. The Protocol creates a scenario where these countries will have to develop internal mechanisms to ensure that access has respected the jurisdiction of the provider country.

Another important achievement of the Protocol is related to expanding the rights of indigenous people and traditional communities. As previously mentioned, article 8(j) of the CBD is the most important provision in the Convention related to traditional communities, but is not considered strong enough to guarantee certain

rights. The Nagoya Protocol takes the content of this article and expands its scope allowing for better securing of rights. Some of these advances can be seen in the establishment of the inseparable link between genetic resources and traditional knowledge, which allows for a discussion related to the ownership of natural resources and benefit-sharing; the obligation to have prior informed consent and benefit-sharing when accessing traditional knowledge; and the need to respect and conform to customary laws and community protocols (Bavikatte & Robison, 2011; Convention on Biological Diversity, 2010).

The acknowledgement of these two governance models, customary laws and community protocols, represents a key advance in securing the rights of communities. According to Greiber (2012), customary laws are 'non-codified norms that have evolved in ILC[6] societies over centuries, constantly responding to changes in these societies and to the surrounding environment' (Greiber et al., 2012, p. 138). Community Protocols can be understood as a written document that codifies local rules of a traditional community related to the terms for access of genetic resources and traditional knowledge (Greiber et al., 2012). This definition is, however, over-simplistic and focused on only one area. As we will see in Chapter 8, Community Protocols can potentially be more than just an instrument to regulate ABS according to customary norms, with the potential to be a tool of community empowerment and therefore able to help communities to achieve fairness and equity in ABS agreements.

The orientation by the Nagoya Protocol to respect these local instruments in any access represents an important step in the discussion of how to translate customary laws and community protocols into an international and national legal system. Taking into consideration the fact that legal systems are essentially positivist and homogenous, it is important to question how the diversity of customary laws can be translated into practice without losing their essence. This becomes more problematic when one considers that the very subjects of customary law are indigenous and traditional communities, which are often excluded from the legal system. As such, it is argued that it is necessary to challenge the nature of the law and look at it through the lens of legal pluralism, where it is possible to have a multiple and diverse understanding of the law that will be able to embrace these new systems of norms (Vermeylen, 2013).

[6] ILC means indigenous and local communities- this thesis uses traditional communities instead of local communities to respect the terminology used by Brazilian legislation.

Some other important outcomes of the Nagoya Protocol are the strengthening of measures to increase capacities of countries, the need for a global mechanism of benefit-sharing for transboundary situations and the identification that the benefits arising from the access should be aimed at conservation and sustainable use (Kamau et al., 2010).

It is still early to fully understand how the implementation of the Nagoya Protocol will affect the development of national ABS legislation. The Protocol brings uncertainties such as the temporal scope of the Protocol (i.e. whether it refers to genetic resources and traditional knowledge prior or post to the CBD) and the lack of enforcement components to ensure a fair and equitable benefit-sharing, leaving it to contractual terms (Kamau et al., 2010; Rabitz, 2015).

Furthermore, the Protocol text kept some vague and weak language, directly affecting the ability to fully secure the rights of indigenous and traditional communities. Phrases such as 'as appropriate' or 'as applicable' often exempt countries from their responsibilities. For instance, article 12 states that community protocols will only be taken into consideration in 'accordance with domestic law', weakening the possibility of customary law being taken seriously by national legislation (Kamau et al., 2010; Vermeylen, 2013).

Despite these setbacks, the Nagoya Protocol has the potential to create a scenario for stronger legal security for both users and providers of biodiversity while ensuring that indigenous and traditional communities as well as their rights are fully integrated into the process of access.

2.4- Brazilian Legislation on Access and Benefit-sharing (ABS)

After looking at some of the contributions of the CBD and the Nagoya Protocol to the discussion of ABS, this chapter turns its attention to how the Brazilian government has been able to translate these international agreements and mechanisms into national legislation.

The Brazilian Constitution of 1988 has provisions for the protection of both the socio-diversity and biodiversity of the country. For instance, article 225 determines the preservation of genetic heritage while identifying the right of all citizens to a balanced environment. Article 215 protects the expression of popular, indigenous and Afro-Brazilian culture and article 231 recognizes the social

organization of indigenous people, their culture and their right to their traditional territory (Presidência da República, 1988; Santilli, 1997). These provisions were a considerable positive step in ensuring the rights of indigenous and traditional communities and at the same time identifying a healthy environment as a right of all Brazilians.

As a country rich in biodiversity, the Brazilian government struggles to find a path to sustainable development, where protection of the environment would not be considered an obstacle to the socio-economic development of the country. Policies aimed at the Amazon region are a clear reflection of this scenario. During the Brazilian military dictatorship in the 60s and 70s, the Amazon region was seen as a vast underdeveloped area with potential to be modernised and included in the country's growing economy. According to Hall (1997) the military regime saw the region as an opportunity to increase their influence: (i) large infrastructure projects such as mining, highways, dams and cattle ranching were implemented in the region reflecting a belief that this would enhance national and regional progress; (ii) national programmes such as the Transamazon highway settlement scheme were aimed at resettling poor farmers from the northeast and centre-south Brazil, who were going through serious rural conflict due to land concentration; (iii) increase in the occupation of the region as a strategy to strengthen the power of the federal government against regional elites and social uprising (Hall, 1997a, 2005). This was accompanied by the motto "integrar para não entregar" (to occupy in order not to forfeit) led by military ideas of protection of Brazilian frontiers against external threats (Assies, 2003).

These projects clashed with indigenous and traditional populations of the region resulting in conflict, violence and internal displacement of these communities. This was accompanied by the construction of the indigenous stereotype as primitive, politically immature and irresponsible; people who should be educated and 'civilized' in order to be integrated into Brazilian society (Pasca, 2005). As Ramos (1998) rightly pointed out there are numerous keywords such as 'child', 'heathen', 'primitive' and 'savage', which are used to define indigenous people which carry hidden meanings and value judgements, reflecting the nature of the relationship between indigenous and non-indigenous people in Brazil (A. R. Ramos, 1998).

On the other hand, parallel to this prejudiced vision, another was forming where the environmental conservation movement recognized that indigenous and

traditional communities were an ally against the destruction of biodiversity, as they had a long history of struggle to protect their land from invaders (Pasca, 2005). By joining forces with the environmental movement these communities started to be seen as important political actors in the protection of the forest's resources. The concept of the 'noble ecological savage' was encoded in the discourse of conservationists where indigenous people were seen as naturally conservationist and therefore able to live in a sustainable environment, being the natural protectors of the forest (Redford, 1991; Redford & Stearman, 1993).

The concept of the ecologically noble savage is no longer accepted as a norm, but it is recognized that these communities do play an important role in biodiversity conservation. Studies have shown that there is enough evidence to link Amazonian societies with areas of high diversity of natural resources, where anthropogenic activities have a direct positive effect on biodiversity (Balée, 1989; Balée & Gely, 1989). This has led to an alliance between the conservation movement, which aimed at the protection of biomes and biodiversity, and indigenous and traditional communities, who need protection of their land.

This alliance was seen in the 1992 Rio Summit, in which these communities participated, and where some results such as the CBD and the Agenda 21 had a specific concern for the wellbeing of these societies and for the protection of their land and culture. It was in May 1994 that Brazil ratified the Convention on Biological Diversity, opening up space for debate on national legislation to conserve biodiversity through sustainable use, benefit-sharing and respect for indigenous and traditional communities.

One of the first initiatives to regulate the Convention in Brazil was in 1995 with Draft Law number 306 by Senator Ms Marina Silva, which was characterised by a democratic process with three public hearings in one year and the participation of civil society, NGOs and social scientists in debates (Santilli, 1997). This draft law was approved in the format of a substitute proposed by Senator Osmar Dias (Draft Law 4.842/1998), however it differed from the objective of the original draft law as it focused more on the access of genetic resources and traditional knowledge and less on the conservation of biodiversity. Other draft laws on this same topic were proposed during the late 90s (Draft Law 4.579/1998, Draft Law 4.751/1998, Draft Law 1954/1999) but none of these progressed to the voting stage in Congress to become legislation (Azevedo et al., 2005).

In 2000, a dubious contract was made public between the pharmaceutical company Novartis and the Social Organization (NGO) BioAmazonia. This deal was to collect, isolate and identify up to ten thousand microorganisms and then take the extracts abroad where new tests would be carried out with technology and equipment not available in Brazil. BioAmazonia would receive 1% in royalties for products that resulted from this research. There was an outcry from the Brazilian scientific community as this deal, which was of strategic importance to the country, was being discussed without the knowledge or participation of the Brazilian government. In this contract, there was no provision of technology transfer to Brazil and Novartis would have exclusive and everlasting rights to any product that would arise from this access. The Brazilian Ministry of Environment intervened in the process and the contract was suspended (Sant'Ana, 2004).

This scandal was the catalyst for the regulation of access to biological resources in Brazil, raising questions regarding Brazilian environmental politics and putting pressure on the Government to speed up the enactment of legislation to protect the country's biodiversity. As a rapid answer to this lack of regulation, the executive powers enacted a provisional measure in 2000 that was edited sixteen times until its last version in 2001, turning into Provisional Measure 2.186/16 that became the legal instrument through which access to genetic resources and traditional knowledge was regulated in the country. In the Brazilian legal system, a provisional measure is a legal act that only the president has the power to make in cases of relevance and urgency and that has the immediate validity of a Law (Presidência da República, 1988), but without having to go through the debate and approval of Congress, which will only happen at a later stage. In this sense, the decision to have a provisional measure ignored the democratic process that was already going on in Brazil with the discussion of the draft law, and precisely this undemocratic nature of the new legislation has always been one of its main criticisms (Azevedo et al., 2005; Castilho, 2003). There was no participation of civil society or private sectors in the creation of this provisional measure.

Acting as legislation, this provisional measure regulated the access of genetic resources, protection and access to associated traditional knowledge, benefit-sharing, and access and transfer of technology until May 2015 when Law 13.123 was passed in Congress, substituting Provisional Measure 2.186. For this research, it is important to understand the context in which access and benefit-sharing has been happening in

Brazil for the past 14 years under this provisional measure in order to identify the challenges posed by this activity in the country and how that has informed the discussion on Law 13.123. Furthermore, the great majority of ABS cases in Brazil, including the main case study of this research, have been regulated by Provisional Measure 2.186 and therefore, although no longer valid, is an essential legal document to this discussion.

2.4.1- Provisional Measure 2.186 Setting the Rule of ABS in Brazil

From its conception, Provisional Measure 2.186 has caused divergence regarding its democratic values and effectiveness. While this was an instrument that regulated the Convention on Biological Diversity in Brazil, Provisional Measure 2.186 adopted different terminology and concepts in its articles, generating concerns among different groups.

One term that caused heated debates was the use of 'anuência prévia' in Brazilian legislation, instead of 'prior informed consent' (PIC) as stated by the CBD. Although this term can be understood as 'prior consent' in Portuguese, it was considered limited and lacking the same weight as the term 'prior informed consent', and without the accumulated discussion (Kaingang, 2006). For indigenous people and traditional communities the use of such term caused great concern when it was first used in legislation because it failed to maintain a dialogue with the more established debate of PIC that had been institutionalised by Convention ILO 169 that reaffirmed the right of indigenous and traditional people and later by the CBD that used this term in ABS discussions. For these communities, prior informed consent is a way of guaranteeing that the rightful owners of knowledge are consulted, that consultation happens before any project is initiated in their territory and that they are fully informed about the project and its consequences (Azevedo et al., 2005; Bensusan, 2005).

Another point of apprehension in this legislation was that despite the recognition by the provisional measure of the ownership of traditional knowledge by local communities and the need for its protection, it stated that this would not affect or limit intellectual property rights already established under Brazilian law, weakening in this way the protection of traditional knowledge. Also, while this legislation identified the need for authorization prior to any access, it also stated (article 17) that

in the case of relevant public interest, access may happen without the need for prior consent (Presidência da República, 2001; Sant'Ana, 2004). These divergent provisions of the provisional measure reinforced the view that this legislation was limited and did not fully reflected the discussions on consent found in the CBD.

In order to regulate Provisional Measure 2.186/16, the Genetic Heritage Management Council (CGEN) was set up, which is a normative and deliberative institution that forms part of the Ministry of Environment and is responsible for the development of technical norms and guidelines on access and benefit-sharing in the country. CGEN was also responsible for authorizing access and benefit-sharing contracts. The composition of the Council was made up solely of institutions and entities from the Federal Administration and the lack of civil society representation was heavily criticised. It is inconceivable to think that the institution that deliberated and decided about access to biodiversity and traditional knowledge had no representation of the sector of society that would be directly affected by their decision, i.e. indigenous people and traditional communities. In an attempt to address this inequality, in 2003 the position of 'permanent guests' was created, made up by representatives from indigenous and traditional communities, academic and private sectors, who could attend CGEN meetings, but only with the right to a voice and not a vote (Azevedo et al., 2005). Despite being far from ideal, this was an important step towards inclusion as it gave communities the possibility of gathering information about access that was happening in the country and created the possibility of influencing discussion, despite them not being part of the decision making process.

There was, however, another impediment to the participation of the 'permanent guests' in discussions related to access. Often, there were confidential clauses in the ABS processes submitted to CGEN and on these occasions only the official institutions of the Council were allowed to be part of the debate. Usually confidential clauses are related to the type of genetic resources and traditional knowledge accessed and to the benefit-sharing contract clauses, which are important to ensuring fairness and equity in the process. These were the exact discussions that the representatives of indigenous people and traditional knowledge were excluded from. Considering these unequal power relations and the need to respect Transparency Law 12.577, which was approved in 2011, a Working Group was formed to decide on the areas where confidentiality was actually necessary. Hence, in 2013 a report was issued with guidelines on where confidentiality could be requested

in a process of ABS. One of the recommendations given was the prioritization that the clauses of a benefit-sharing contract should be made public, in order to generate exchange of experiences and allow for an oversight of this public policy (Grupo de Trabalho Ad Hoc sobre Sigilo de Informações- GTSI, 29/08/2013; Secretaria Executiva do Conselho de Gestão do Patrimônio Genético, 2013).

The many technical orientations developed by CGEN over the years provided guidance to the process of access and benefit-sharing. This research has no intention of making a legal analysis of these orientations or the provisional measure itself, but it is necessary to look at key aspects of these legal procedures in order to understand how it has shaped the way authorisation was given to bioprospecting institutions in Brazil, which will be seen in the analysis of the case study. Relevant to this research is to understand how the provisional measure and CGEN regulated access to traditional knowledge associated with genetic resources with potential commercial use[7].

According to article 16 of the provisional measure, access to genetic resources and/or traditional knowledge can only happen after prior authorization is acquired and in case there is a prospect of commercial use, the benefit-sharing contract should be drafted and signed by both parties. These documents would then be analysed by CGEN for authorisation and only then could the bioprospecting institution access the genetic resources and traditional knowledge of the territory. Hence, there were two important processes that were relevant to access: that of prior consent and what should be the content of the benefit-sharing contract (Presidência da República, 2001).

CGEN resolution number 6 outlined the process of acquiring prior consent from indigenous people and traditional communities. According to this, there are eight points that need to be respected in the consent process (i) it should state the objective of the research, its methodology, duration, budget, how the traditional knowledge accessed will be used, geographical area of the project and which community is involved in the access- all in accessible language to the community; (ii) if requested, all information should be given in the native language of the community; (iii) respect for the community's social organizational forms and traditional political

[7] The National legislation allowed for three types of access: (i) access to genetic resources, (ii) access to genetic resources and traditional knowledge and (iii) access to traditional knowledge only. Also, the objective of the access can be for scientific research or commercial use, which requires a benefit-sharing contract.

representation during consultation; (iv) clarification to the community about the social, cultural and environmental impacts of the project; (v) clarification to the community about the rights and responsibilities of each party; (vi) establish, in partnership with the community, the form and modality of benefit-sharing (monetary or non-monetary); (vii) guarantee the right of the community to deny access; (viii) if requested, provide scientific, linguistic, technical and/or legal independent support for the community (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003).

In addition, as part of the process of receiving authorisation for access, there was a need to have an independent anthropological report related to the process of acquiring consent. This report had to contain some minimum requirements such as description of the social organization and political representation of the community; evaluation of the understanding of the community about the project and its consequences; evaluation of the socio-cultural consequences of the project; detailed description of how consent was acquired and evaluation of how respectful the process of consent was according to national legislation (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003). The anthropological report was important because it was through this document that CGEN was able to analyse whether the process of acquiring consent followed the necessary guidelines.

In the specific case where access had the potential to turn into commercial use, it was necessary that the bioprospecting institution and the community sign a benefit-sharing contract prior to the access. The third objective of the CBD states the need for an equitable and fair benefit-sharing arrangement. However, the Convention does not shed light on any discussion regarding the meaning of fairness and equity, leaving that to be discussed by national legislation. In this way, CGEN resolution 11 identified minimum requirements for a contract to be considered fair and equitable. To this end, in conjunction with article 28 of the provisional measure, this resolution established a list of criteria that an ABS contract should have, such as duration, forms of benefit-sharing, access to technology, penalties and intellectual property rights (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 25 de Março de 2004; Presidência da República, 2001)

There have been other CGEN resolutions and many technical guidelines that aimed to clarify and facilitate the process of access in Brazil. Despite that, the

provisional measure was never seen as an efficient instrument for ensuring the rights of communities, to guarantee fair and equitable access, and to contribute to the conservation of biodiversity. Bioprospection institutions complained about the bureaucracy that existed to gain authorisation and the legal insecurity that existed when dealing with traditional knowledge, whereas communities felt that they were still marginal to the process.

In order to improve the speed of authorizations and decrease bureaucracy, CGEN accredited three institutions that could receive requests for authorization for specific access cases: the National Council for Scientific and Technological Development- CNPq (for access to genetic resources for scientific research and/or commercial use), the Brazilian Institution on Environment and Renewable Natural Resources- IBAMA (for access to genetic resources for scientific research only) and the Institute for the National Historic and Artistic Heritage – IPHAN (for access of associated traditional knowledge for scientific research only). CGEN can authorise access to both genetic resources and traditional knowledge for commercial use and scientific research.

Between 2002 and 2014[8], CGEN issued 316 authorisations for access to genetic resources and/or associated traditional knowledge, of which 248 (78.48%) were related to access to genetic resources, 47 (14.87%) were related to access of traditional knowledge only and 21 (6.65%) concerned access to both genetic resources and traditional knowledge. Furthermore, 95 (30.06%) authorisations given were specific for scientific research whereas the other 221 (69.94%) were for commercial use. Considering the accredited institutions, there were 1,667 authorisations of access in Brazil during this period (Ministério do Meio Ambiente, Secretaria de Biodiversidade e Florestas, Departamento do Patrimônio Genético, & Secretaria Executiva do Conselho de Gestão do Patrimônio Genético, 2014).

A snapshot of the requests for access and authorizations given shows some of the trends of access in the country. During 2014, there were 83 requests for authorization for access to genetic resources and/or traditional knowledge sent to CGEN. The great majority, 78 processes (94%), were related to access to genetic resources while 4 processes (5%) were related to access of both genetic resources and traditional knowledge. Only 1 process (1%) was about access to traditional

[8] The last report published by CGEN is from 2014

knowledge. In addition, 8 processes (10%) had as their focus scientific research, whereas the great majority (75 processes) had as their aim economic use (bioprospection and/or technological development) (Ministério do Meio Ambiente et al., 2014).

In terms of authorizations given, CGEN authorized 57 processes of access to genetic resources and/or traditional knowledge during 2014, of which 87.72% (50 authorizations) were for access to genetic resources, 7.02% (4 authorisations) were for access to both genetic resource and associated traditional knowledge and 5.26% (3 authorisations) were for access to traditional knowledge only (Ministério do Meio Ambiente et al., 2014).

These numbers suggest that (i) biodiversity has value for the market, as the majority of access was for the commercial development of genetic resources; (ii) there has been a preference for accessing genetic resources and there has been no interest, no need or even avoidance in accessing traditional knowledge. There is no study about the reasons for the low number of access to traditional knowledge in Brazil, which could be initially interpreted as the industry's belief that traditional knowledge is not totally necessary for their products. Indeed, it is argued that there is an overestimation of the role of traditional knowledge in research and technological development. For instance, it is known that the pharmaceutical, cosmetics and botanical medicine industries use traditional knowledge to guide their product research, but they tend to use literature rather than ethno-botanical collection to find the necessary data (Laird & Kate, 2002).

However, considering how the provisional measure regulated access, it is possible to look into other aspects that could also have played a role in how access happened in Brazil. Access to traditional knowledge has been a more complex process with specific requirements such as the anthropological report; it potentially took longer than the access to genetic resources, as there was a need to enter into a negotiation with communities, which often required time; and institutions felt that there was not enough legal security in the process that could guarantee that the legality of their access would not be questioned, which could generate fines or even bad press by being labelled 'biopirates'. Indeed, the term 'biopiracy' is feared by both private and public institutions because it can impact negatively on their ability to make a legal ABS agreement and get funding, therefore making it more difficult for them to have a commercial deal and profit from access (Greiber et al., 2012).

An important aspect of the access and one that has generated extensive criticism by the industry and academic sectors is the length of the procedures for acquiring authorisation for access. According to Provisional Measure 2.186, it was only after authorisation had been issued that a bioprospecting institution could legally initiate access. In CGEN, the authorisation process took an average of 501 days from the day of the request until the day the authorisation was published in the Federal Official Journal. For IPHAN processes, it took an average of 200 days and for the CNPq 94 days. At IBAMA, the shortest period registered for was 45 days for authorisation of a simple access[9]. According to the report on CGEN activities, the lack of complete documentation submitted to CGEN was one of the main reasons for the long time needed for authorisation. Also, the report argues that since changes implemented in 2014, the time for authorisations in CGEN has decreased to about one year (Ministério do Meio Ambiente et al., 2014). This extremely lengthy process has a negative impact on both the private sector and research institutions who often argue they cannot wait that long to gain authorisation to start their activities, as it affects business and has a direct impact on research grants.

There has been a considerable increase in numbers of ABS contracts authorised by CGEN in the past years. In 2011, there were four contracts whereas in 2012 there were forty authorised contracts, which is a considerable increase. It is interesting to note that the cosmetics industry is the leading sector in access to genetic resources and traditional knowledge in Brazil. Out of the 103 contracts that have been authorised from 2002 to 2013 by CGEN, 73 of these contracts were made for the cosmetics industry with only 10 for academic research on pharmacy and 4 for the pharmacy sector itself (Schmidt).

2.4.2- New Biodiversity Law in Brazil

In May 2015, Brazilian Congress approved Law 13.123 that substituted Provisional Measure 2.186. This was a landmark in the discussion of access to genetic resources, traditional knowledge and benefit-sharing with much expectation that this new legislation would bring positive change after so many years of a provisional measure with a lot of limitations. However, Law 13.123 is considered by many as back-sliding in the recognition and guarantee of rights of indigenous people and

[9] The report was not able to give the average number of days that takes an authorisation to go through at the IBAMA

traditional communities, which has a direct influence on its ability to provide for a fair and equitable benefit-share.

Law 13.123 was approved under the so-called 'urgency regime', which is a fast-track system of voting that is exempted from following internal legal procedures and in this case resulted in the absence of any debate with indigenous people and traditional communities (Instituto Socioambiental, 30th October 2015). Indeed, criticism towards the new Law is about its content as well as the process by means of which it was discussed.

By late 2012, the National Commission for Indigenous People and Traditional Communities learned through unofficial means that the Ministry of Environment was discussing a draft law to substitute the provisional measure and that this version had been already modified by different industrial sectors, such as the pharmaceutical sector, while communities had not yet been consulted. As a response, the Commission got together to discuss this draft law, making proposals and amendments to what was being reviewed, reinforcing the need to have safeguards to protect the rights of communities. This new modified version of the draft law was sent to the Minister of Environment, Ms Teixeira, for appreciation (Grupo de Trabalho Amazônico (GTA), 12th December 2012), but very little was taken into consideration in the debate about the legislation.

There was a major concern that indigenous peoples and traditional communities were not being involved in the discussion and that the proposed text did not guarantee the rights of these communities and did not have 'social legitimacy', as it was not constructed according to the demands and needs of the sector of society responsible for the maintenance of traditional knowledge, and who therefore should be the main users of this legislation (Porro, 2017). In August 2014, the 6th Chamber of the Brazilian Public Prosecutor's Office wrote a technical note about the draft law where it highlighted a series of missing safeguards, such as (i) the need for free, prior, informed consent when accessing traditional knowledge, (ii) the need for indigenous people to be protagonists of this discussion and therefore be consulted in the process, (iii) the violation of fair and equitable benefit-sharing in the proposed legislation and (iv) it concluded by stating that many rights that are protected in international agreements were being violated in this draft law (Ministério Público Federal, 2014a).

Before approval, there was also manifestation from civil society against the draft law. In February 2015, a letter signed by 78 institutions that represented

indigenous people, traditional communities and family farmers was published to publicly denounce the violations of the rights of these communities in this new legislation. This letter stated that communities were excluded from the process of elaboration of the law without any debate or consultation, which goes against the CBD, the International Treaty on Plant Genetic Resources for Food and Agriculture, and the Federal Constitution. The letter also denounced the broad favouring of the pharmaceutical, cosmetics and agribusiness industry in the process of constructing the legislation (Povos Indígenas e Comunidades Tradicionais, 27th February 2015).

A second letter was written and signed by 142 civil society organizations and NGOs asking President Dilma to veto the entire draft law or, in case of impossibility of a veto, the letter identified several specific points that would need to be vetoed to minimally guarantee certain rights of communities (Povos Indígenas e Comunidades Tradicionais, 2014).

The President did not veto the legislation in full, but five articles were vetoed, three of which contemplated some of the claims that appeared in the letter. These three vetoes were: the article exempting benefit-sharing from access made before 29th June 2000 (article17, § 10), the article that gave the possibility of the industry to exclusively choose the final recipient of the non-monetary benefit share (article 19 § 4) and the article where the Ministry of Agriculture was given sole responsibility for overseeing access in agricultural activities (article 29). The first two articles were supported by the industry and the latter by the Ruralist lobby, both institutions that strongly lobbied the government during the construction of this legislation (Instituto Socioambiental, 2015b; Presidência da República, 20 de Maio de 2015).

Other articles suggested for vetoing in the letter included one that identified the 'opinion of a competent official body' as one way to prove that there was prior informed consent of communities[10] (Art. 9.o, § 1.o, III) and one that stated that the traditional knowledge associated with traditional crops varieties are always of unidentifiable origin[11] (Art. 9.o, § 3.o). Despite them clearly violating the rights of communities, they remained in the final text of the legislation.

The new Law 13.123 was approved in May 2015, despite all the criticism towards its construction and text. One of the major changes brought by this new

[10] Reason for calling the veto: no public institution should be able to speak on behalf of communities
[11] Reason for calling the veto: it denies the recognition of the role of past generations in agriculture, which could lead to the eventual identification of the origin of the knowledge.

legislation was the separation between genetic resources and traditional knowledge, creating a situation where traditional knowledge that is intrinsic to the genetic resource is not recognized, as is the case with traditional seeds that have been modified by farmers for centuries. In this process, there is a separation between the identifiable and non-identifiable origin of traditional knowledge, the consequence being that the first one requires the free, prior, informed consent of the community while the second doesn't (Moreira, 2017).

Another point of concern in the legislation is the definition of 1% of the annual net revenue as the monetary benefit share in case of access to genetic resources, which has the possibility of being decreased to 0.1% if there is an industry agreement. There is no economic logic to the definition of this percentage and it was a decision made without any consultation of communities (Ministério Público Federal, 2014a; Moreira, 2017). Furthermore, benefit-sharing can only happen with the final product and not with intermediary ones, and the genetic resources and/or traditional knowledge must add value to this final product. This puts a huge limitation on benefit-sharing, linking it with financial and commercial returns primarily, while traditional knowledge should not be seen purely as a commodity. In this scenario it is important to consider the subjectivity of stipulating an 'added value' and the impossibility of defining how determinant the genetic resource and/or traditional knowledge is for the final product (Martins & Almeida, 2017).

There are, however, a couple of things that one can highlight as a positive outcome of Law 13.123. This includes article 8, that recognizes the right of indigenous people, traditional communities and traditional agricultures to participate in the decision-making on matters related to their knowledge and the recognition that community protocols can be used as a way of getting prior consent (Presidência da República, 20 de Maio de 2015). This last item is especially relevant considering the potential role that a Community Protocol can play in the empowerment of communities, as we will see in Chapter 8.

Despite these small positive changes, it is unfortunate that much-needed legislation on the matter of ABS has failed to guarantee the basic rights of indigenous people and traditional communities, sidelining this sector of society in the debate about its construction and implementation.

2.5 Final Considerations

Indigenous people and traditional communities from Brazil have been faced with a series of rights violations, such as their right to participate and be consulted in decisions that affect their wellbeing; their right for free, prior and informed consent; their right of self-determination; their right to protect their traditional knowledge and their right for a fair and equitable benefit-sharing. Both the Convention on Biological Diversity and the Nagoya Protocol are international agreements that aim to address these issues and, being a signatory of these treaties, the Brazilian government has the obligation to fulfil these rights. Provisional Measure 12.186 and now Law 13.123 are means by which the government could ensure that these rights are achieved, however they are failing in this aspect.

Specifically in the discussion on guaranteeing the right for a fair and equitable benefit-sharing, which is the concern of this research, it is possible to identify some ground rules and basic steps that can create a more favourable scenario to achieve equity and fairness. The rights-based approach, which is going to be discussed in the next chapter, will inform this discussion by being the basis through which the case studies will be analysed.

International and national legislation on ABS create the structure for ensuring rights, but it is necessary to look closely at the local practice of ABS to understand how the respect (or not) of rights can influence benefit-sharing. By looking at the access to genetic resources and traditional knowledge of the Oriximiná quilombo and the construction of the Bailique Community Protocol, this research is aiming to address these rules and identify some basic components that would allow for the fulfilment of the rights of indigenous people and traditional communities. Considering that implementation of Law 13.123 is at a very early stage[12], there is still space to learn from past experiences of access to traditional knowledge and with an innovative experience such as the Community Protocol.

[12] For instance the National System for the Management of the Genetic Resources and Associated Traditional Knowledge (SisGen), an online platform to register access, only started to work in November 2017.

3- Using the Rights-Based Approach (RBA) to Discuss Equity and Fairness in Benefit-sharing.

3.1. Introduction

The language of rights is not a new phenomenon, having emerged from the struggle of developing countries to ensure the full realization of their economic, civil, social, cultural and political rights during the post-colonial era. More specifically, the fight for the right to participate in decisions that affect their wellbeing was present in the movements of women, landless and indigenous peoples in the 60s and 70s. The many international treaties, covenants and declarations on human rights[13] during the 70s, 80s and early 90s gave legal support to the discourse of rights (Cornwall & Nyamu-Musembi, 2005; Eyben, 2003).

It was during the 90s that the discourse of rights-based approaches (RBA) emerged and was adopted by national and international NGOs, country donors, social movements and governments. With such a variety of development actors using the RBA as a tool, the meaning of this approach was also diverse. It is possible to say that the RBA brought a strategic shift in development work, where rights had to be accounted for throughout the process (H. Miller, 2010). Importantly, the RBA takes into consideration all types of rights - economic, social, environmental, cultural - considering these rights indivisible and interdependent, providing in this way a holistic view on development (Eyben, 2003).

The rights-based approach is understood to allow for a more politicized debate, where issues of empowerment and participation are taken into account. Also, in a discussion of rights, there are the right holders and the duty bearers, making the process of accountability clearer. With this in mind, this research is going to use the RBA as a theoretical base on which the case studies will be looked at. By looking at access and benefit-sharing (ABS) through the lens of the RBA, this research proposes to identify how a set of rights can diminish the power imbalance between communities and bioprospectors, and in this way influence the fairness and equity of an ABS agreement.

[13] Some of these can be listed as: International Covenant on Civil and Political Rights (entered into force 1976), International Covenant on Economic, Social and Cultural Rights (entered into force in 1976), Declaration of the Right to Development (1986), International Labour Organization Convention 169 Concerning Indigenous and Tribal Peoples (entered into force in 1991)

This chapter is divided into four sections which seek to understand how a theory of RBA can guide the discussion of ABS. The first will introduce the discussion of rights, identifying the development of the rights discourse and the contributions it has brought to the development field. The second section will look at how RBA can be a transformative tool, influencing power structures and re-politicizing the concept of participation. The different dimensions of power and how they can be challenged are central to the discussion of access of genetic resources, especially when access involves the traditional knowledge of indigenous and traditional communities. The same can be said about the right of participation, which is the basis for guaranteeing a more equal negotiation with communities in cases of access.

The third section discusses the rights-based approach to conservation, which recognizes the link between the fulfilment of rights and the protection of the environment. It is here that a discussion on land security, natural resources management and respect for customary norms shows how conservation of biodiversity is intertwined with the protection of the rights of indigenous and traditional communities. The discussion of a rights-based approach to conservation is then adapted to engage more closely with the subject of fairness and equity in benefit-sharing.

The last section will present a discussion about the different types of justice and how they can be a tool for understanding fairness and equity. Despite neither the Convention on Biological Diversity or the Nagoya Protocol identifying the steps needed to reach equitable and fair benefit-sharing, this thesis proposes an RBA framework that can identify how the fulfilment of certain rights can increase the possibility of achieving fair and equitable benefit-sharing. This is the main question addressed by this research, which aims to address the complexities of access to genetic resources and traditional knowledge while at the same time identifying some of the elements that could contribute to a fairer and more equitable process of benefit-sharing. This is a right that most indigenous and traditional communities in the world have not been able to secure.

3.2- The Development of the Rights Discourse

It is possible to identify a series of factors that have contributed to the growing discussion of rights by international development agencies and donors. At the end of the Cold War, there was a greater acceptance of the existence of different types of rights, such as civil, cultural, social, economic and political. The 1993 World Conference on Human Rights held in Vienna marked the acceptance of their indivisibility, interdependence and non-hierarchical nature. It was then at the 1995 World Social Development Summit held in Copenhagen that there was a call from NGOs from southern countries for the concepts of rights to be introduced in development projects. It is important to note that the language of a rights-based approach in the 90s was more focused on the duties of the State and not so much on duties of the international community as a whole. Despite the use of a rights discourse by funding institutions, their responsibility as duty holders was not clear, which is seen as one of the reasons why the language of rights was so welcomed by these organizations (Cornwall & Nyamu-Musembi, 2005). Certainly, donor countries and international funding agencies did not feel pressured to take full responsibility over the implementation of rights in development projects.

Despite this weak global accountability, the discussion of rights in the development field brings with it added values from the normative, pragmatic and ethical perspectives that allowed for important reflections on the implementation of development projects (Nyamu-Musembi & Cornwall, 2004). The normative view understands that RBA provides a scenario of what 'ought to be', bringing values of morality and ethics into the discussion of development (Hausermann, 1998). It is an approach that has a national and international legal basis, where citizens can find support to hold states accountable for the full realization of their rights. This possibility of bringing states and, increasingly, non-state actors to account is the pragmatic value of having a RBA to development. In the rights discourse there are right-holders and duty-bearers and as such there should be a system of accountability. Finally, the ethical perspective suggests that RBA has the potential to challenge existing power structures and strengthen the political nature of participation that has been lost due to the mainstreaming of the term by international and donor agencies. Through this perspective it becomes clear that the RBA to development has the potential to be more than an empty discourse, but an approach that can create

effective change (Cornwall & Nyamu-Musembi, 2005; Eyben, 2003; Nyamu-Musembi & Cornwall, 2004).

In this discussion of what rights can bring to development practice, there is a need to be cautious to avoid having the RBA co-opted by the mainstream system and reducing it to business as usual rather than a methodology that can generate structural changes. Cornwall and Nyamu-Musembi (2005) have showed that often institutions using this approach have ignored the history of the struggle of rights from the post-colonial era and thus the meaning that the talk of rights carries for many people. Miller et al. (2005) have pointed out that by depending too much on the legal aspects of rights, such as national legislation, this approach can potentially alienate citizens in understanding their role as rights-holders and the possibility that they can be agents of their own change. Hence, it is important to ensure that the RBA to development is more than just a tool used by donors and international agencies to maintain the current established order. It needs to be used in a way that will create a space for accountability, participation and social justice. It is certainly possible to identify several reasons why the rights-based approach can be an instrument of change (V. Miller, Veneklasen, & Clark, 2005).

The most obvious contributions from the RBA are its relationship – direct and indirect - with the law. The first is where there is direct use of legal systems to assist the realization of rights, for instance, by taking cases to national and international courts. One recent example in Brazil was when the Inter-American Commission on Human Rights demanded the immediate suspension of the licensing process of the Belo Monte dam in the Amazon in 2011 and that no further construction be carried out until there was free, prior and informed consent (FPIC) with each community affected. This was an avenue found to help communities fight for their right to be consulted for a major project that is directly affecting their livelihood and local environment[14] (Instituto Socioambiental, 2015a). It is important, however, to bear in mind the fact that that this direct use of legislation is not always an option for most citizens who do not have access either because they are marginalized or because the system of national and international jurisprudence is still not mature enough to ensure the full realization of rights (Gready, 2008; Nyamu-Musembi & Cornwall, 2004).

[14] It is interesting to note that the Brazilian government not only ignored the Commission's requests but also suspended its annual financial contribution to the Organization of American States (OAS) and removed the Brazilian Ambassador from this organization. The Belo Monte dam is almost finished and the Brazilian government has yet to answer the Commission's questions on human rights violations.

It is then the indirect use of the law that has the potential to generate real change. The legal language has principles that form the basis of the human rights discourse and that can be replicated at local level. Principles such as accountability, empowerment, participation and equality will inform the process of development ensuring there is awareness of rights (Gready, 2008). As Jonsson (2003) affirms, the RBA is concerned not only with the outcome of the project but also with the quality of the process. By generating principles to be followed, the RBA puts forward a model of ethics and justice, allowing for a broader and more local understanding of what is a 'right'; for instance the concept of the right to collective land ownership or the right to access natural resources independently of property status. Civil society and local actors have a role in defining what is a right and how that can have a real impact on people's lives, according to these principles and meanings that appear throughout the literature on rights (Pettit & Wheeler, 2005). This focus on the 'process' is highly relevant as it has a direct impact on the analysis of this research when we look specifically at benefit-sharing.

Another important added value of the RBA is its relationship with the state. The neoliberal agenda, with the rolling back of the state, has considerably diminished the state's responsibility towards ensuring economic and social rights. The discussion of human rights compels the state to reconsider its responsibility for oversight and delivery of rights. Furthermore, it also questions the role of the state in development projects: what are their obligations and their level of accountability? In this sense, it is necessary to create appropriate spaces and institutionalize state contributions to rights through public policies to avoid the manipulation of a specific government in power through a clientelistic approach for instance (Antunes & Romano, 2005).

It is within this role of the state that we can identify the idea of 'accountability' as key to the discussion of a RBA. In this process, the state is seen as the main actor that needs to be held accountable for the full realization of rights. Whereas this is correct and increasingly communities are calling for more accountability from states, there are also non-state actors that bear a share of the responsibility in ensuring that rights are at least respected. There is a growing awareness of the role of business in protecting human rights, where companies ideally would need to avoid negative human rights impacts as well as prevent or mitigate impacts linked to their activities, even if they have not contributed to these impacts (Cornwall & Nyamu-Musembi, 2005; Gready, 2008; United Nations, 2011). This

understanding is highly relevant to the discussion of access and benefit-sharing, where there are a series of different institutions such as companies, universities, NGOs and government institutions that should have a shared responsibility for ensuring that the rights of indigenous and traditional communities are respected throughout the process.

3.3- RBA as a Transformative Instrument: Power and Participation

The RBA has the potential to be a transformative tool, where participation is re-politicized and where there is a challenge to the current power structure. Different authors (Cornwall & Nyamu-Musembi, 2004; Pettit & Wheeler, 2005) have emphasized that RBA makes a real difference precisely because it is able to bring about a real change in power dynamics, being less of a technical activity and more a source of political leverage.

Power relationships have certain nuances and layers that Lukes (1974) describes in his three dimensions of power: visible, hidden and invisible (Lukes, 1974). 'Visible power' is found in official structures such as legislation, institutions and procedures that clearly define the most powerful agents. It is a situation where one side can make the other perform an action it normally would not do. 'Hidden power' is related to who sets the content of the agenda and who is part of the decision-making process. The third dimension, 'invisible power', influences and shapes peoples thoughts, minds and opinions. It can appear in the form of reinforcing a sense of inferiority, powerlessness and ignorance and this can be, for instance, through a process of denial and control of certain information. It can be also present in the form of cultural or religious norms, making it more difficult to tackle as it is seen as legitimate by culture (Crawford & Andreassen, 2015; Gaventa, 2006). These three dimensions of power work with the idea of agency, where power is applied 'over' people through an identifiable power holder such as the state.

Another way to look at power is described by Foucault (1980), who talks about a more diffuse power that is 'never localized here or there, never in anybody's hands, never appropriated as a commodity or component of wealth. Power is employed and exercised through a net-like organisation. And not only do individuals circulate between its threads; they are always in the position of simultaneously undergoing and exercising this power. (…) In other words, individuals are the

vehicles of power, not its points of application' (Foucault, 1980, p. 98). Through this lens, power is everywhere, being found in customs and social norms and therefore appearing in more subtle ways. Power is not only found in known and visible power structures, for instance via gender or elites, but it is embedded in the social system, which means that to challenge power inequality, it is necessary to go beyond these usual power stratifications. This, consequently, will affect the relationship with local knowledge which, in this view, can also be involved in power relations and is not necessarily independent of them. It is important to be aware that local knowledge might involve a replication of existing power structures within society (Kothari, 2001).

Regardless of how one would understand power, the rights discourse brings the possibility of challenging these unequal relationships. One way to bring about a change in power relations is exactly by ensuring that information and knowledge is reached and understood by everyone. This view is supported by different participatory research approaches such as Participatory Action Research (PAR) and Participatory Rural Appraisal (PRA) which posit a more democratic sharing of knowledge, allowing marginalized groups to have a voice and thus increased participation, facilitating a change in the power inequality that might exist where there is a monopoly of knowledge. Power lies at and is reinforced by actors that possess knowledge. For that reason, the focus is on the direct participation of people in projects that affect their wellbeing, valuing local knowledge, local experiences and local expertise (Gaventa & Cornwall, 2006).

These different dimensions of power are interconnected, appearing in the social dynamic that is constructed between rights holders and duty bearers. For Crawford and Andreassen (2015) these power structures are challenged by strategies of cooperation with power-holders, by strategies of confrontation through, for instance, demonstrations and protests and, finally by building alliances with other rights organizations in order to strengthen their struggle for ensuring rights. These strategies can potentially generate alterations in the power structure through changes in legislation, in public policies, in institutions and culturally, especially relevant where one is dealing with invisible power (Crawford & Andreassen, 2015). In this process it is important to bear in mind the fact that changing existing power structures demands time and is certainly more than merely a legal process. Understanding that coercive power is exerted in many dimensions is key to thinking of strategies to

challenge and transform power imbalances in a society.

These considerations bring us to the concept of 'empowerment', which has been used in the field of development and has been co-opted by the main development discourse, losing potential strength as a transformative tool. It has become another keyword for donors and international agencies. However, empowerment is a concept that is directly related to the discussion of power inequalities, where empowerment is about a social-political process that can generate power changes between individuals and social groups. Empowerment is a process of change (Batliwala, 2007; Drydyk, 2013).

Within this scenario of challenging structures through the rights-based approach, there is the concept of participation that is loaded with political meaning. It is an instrument that can enable citizens to be fully part of the decision-making process as actors that are capable of breaking with current unequal power structures (VeneKlasen, Miller, Clark, & Reilly, 2004). Although it is not the intention here to present a historical account of the uses of the term 'participation', it is important to outline some of the meanings attached to it to see how the RBA to development can bring politics back to the discussion of participation.

The way participation has been understood and put into practice has changed considerably over the past decades. In the 60s and 70s, it was possible to identify three main arguments for participation. The first was that allowing people to participate more in development projects would bring effectiveness and efficiency to the project, giving it a greater chance of success. The second argument comes from the struggle of popular movements to ensure their rights were recognized and that there was a more equitable distribution of resources. Here the focus on participation is less about collaborating with the planning of the project and more about being fully involved in the decision-making process, creating the condition for self-determination and self-governance. Thirdly, there is the argument of participation as a mutual learning process, where people affected by the project and external actors would jointly work towards achieving the needed development (Cornwall, 2002).

The late 70s and early 80s saw contrasting views of participation, often within the same donor organization, but in general participation was still associated with the sharing of benefits, of costs, efficiency and effectiveness of the project (Paul, 1987). In this scenario, people were still seen as the beneficiaries of development activities.

By the time neoliberal policies were fully implemented and working, there was a change in perspective where people were no longer seen as passive beneficiaries of development but increasingly responsible for their own development. Many would see this as people taking over the responsibility (and costs) of the state whereas for others it was the chance for people to be active agents of all aspects of the development that affected their lives (Cornwall, 2002; Cornwall & Gaventa, 2001).

With the discussion of community participation, there were increasingly more questions about the meaning of community and who within this group really had the voice to participate. It is interesting to note that at this point there was very little concern with the differences of voices that exist within the same group, such as women, and that contributed to deepening inequality that already existed (Guijt & Shah, 1998).

The 90s brought with it the reinforcement of the role of participation in development, highlighting the responsibility played by NGOs and civil society in monitoring activities of the state. At the same time, the language of empowerment was put into the mainstream of the development agenda, holding a superficial meaning of people being involved in the different phases of the project while ignoring the power inequalities that might prevent people from empowering themselves to be part of the process (Cornwall, 2002).

With the increased use of a rights-based approach to development, participation is then seen as a right and it becomes the basis and starting point to claim other rights (Hausermann, 1998). It is essential that people participate in the planning and decision-making behind an action to ensure that the final result does not violate their other rights. Gaventa (2006) brings up an important discussion about spaces for participation, where spaces are described as 'opportunities, moments and channels where citizens can act to potentially affect policies, discourses, decisions and relationships that affect their lives and interests' (Gaventa, 2006, p. 4). The typology of spaces presented allows for a reflection of whose interests are found in these spaces, how they were created and who is involved in them. There are the 'closed spaces', where decisions are made with no involvement or participation of the general public. For instance, a decision made by the government with no consultation or an elite capture of some decision with no influence from the public. The 'invited spaces' are spaces created by different institutions (i.e. government, donors, NGOs) which citizens/beneficiaries are invited to be a part of and participate. And finally, there are

‘claimed spaces’ created by the less powerful and marginalized sectors of society against powerful actors. This can be the creation of an association or even the use of less official and less institutionalized spaces where participation at all levels and by different stakeholders may take place.

The social theorist Lefebvre (1991) raised the important aspect of spaces for participation by looking into how the dynamics of one space is influenced by the dynamics and power relations of other spaces. The social relations that happen, for instance, in an invited space such as a public hearing resembles what happens in other unofficial or claimed spaces such as a household or community association. It is important to remember that power inequalities will be present in all these spaces (Lefebvre, 1991). Spaces for participation are never neutral and they are charged with power relations. Hence, it is important to be aware about the creation of these spaces and whether invited spaces are created by powerful actors to neutralize the less powerful in the process. Participation approaches must not just reinforce and reproduce patterns of power inequalities, not allowing marginalized voices to speak and be heard (Cornwall, 2002).

Parallel to the discussion of space for participation is the discussion about how participation can appear at different levels. Farrington et al. (1993) propose looking at the depth and breadth of participation. ‘Deep participation’ is when people will get involved in all aspects of an activity from the planning to the decision-making process. ‘Wide participation’ is where a different range of people and not only a specific part of society will be part of the general process (Farrington, Bebbington, Wellard, & Lewis, 1993).

To find the right balance between breadth and depth would be the aim of most activities that search for high participative levels, putting this into practice is challenging. It is necessary to ask questions regarding legitimacy, representation and voice. Also, it is important to bear in mind the issue of inclusion, where it is essential to understand the different groups that compose society (women, elderly, children) and how they have been participating.

There is also the need to think about issues that might affect their levels of participation, such as the day or locality where a meeting is held. It is also relevant to take into consideration that people do have the right of self–exclusion, where they decide not to participate in the activities proposed. The myth of community where everyone is homogenous does not allow for the vision of different wills and

acceptance of the project. Finally, the issue of voice also requires attention. Being involved in a project activity is not the same as being able to speak or having a voice that will be heard. There are several layers of power that need to be challenged in order for a voice to speak and be heard by the community and external agents (Cornwall, 2002).

3.4- The Rights-Based Approach to Conservation

In the same way the rights-based approach has been used in development projects, it has recently been used in relation to conservation activity. There has been recognition of the mutual and reciprocal relationship between human rights and conservation in different manners. The fulfilment of human rights can help to create conditions for environmental protection through, for instance, securing the right of communities to land tenure, which tends to increase the possibility of forest protection (Robinson, Holland, & Treves, 2013). The opposite is also true when conservation activity, such as the protection of a natural resource and ecosystems services, has a direct impact on the realization of people's rights such as the right to clean water (Greiber, Janki, Orellana, Savaresi, & Shelton, 2009).

Nevertheless, history has shown that there is also a third scenario where conservation efforts are directly responsible for violations of human rights. This is very clearly seen in the creation of protected areas, where the displacement of communities occurs, and where there is restriction of their access to local natural resources and changes in land tenure (Grazia Borrini-Feyerabend, Kohtari, & Oviedo, 2004; Cernea, 1997; Coad, Campbell, Miles, & Humphries, 2008; UNDP, UNEP, World Bank, & WRI, 2005).

After the Second World War the number of protected areas increased around the globe, particularly in Africa, with the creation of conservation parks. These were inspired by the conservation model adopted by the USA in the previous century, which were guided by ideas of wilderness conservation and nature's aesthetical value (Nash, 2001). It was only in the 1980s that this conservation model changed to include a social concern for the people that were affected by the creation of these protected areas (Adams & Hutton, 2007). In developing countries, areas of relevance to biodiversity conservation are usually land that provides local communities with their livelihoods. Hence, there is a genuine concern to understand how conservation

efforts can negatively affect the right of these communities to secure a sustainable livelihood.

The creation of protected areas can generate the displacement of people, creating a situation of impoverishment risk to these communities such as landlessness, joblessness, homelessness, marginalisation, increased illness and mortality, food insecurity, loss of access to common property and social disarticulation (Cernea, 1997). Also, protected areas can change land tenure and community structures. Communities living in forested areas usually have common ownership of the land, even if it is not legally recognized by their national government. This common ownership can be understood as territory that is managed by a certain group that follow the same rules, share similar interests and cultural norms, and have specific responsibilities towards the management of this land (Bromely & Cernea, 1989). A change in land tenure regime can limit access to natural resources by these communities, who have in the forest products a safety net for addressing poverty (Sunderlin et al., 2005).

Taking into consideration these different levels of relationship between rights and conservation, the RBA to conservation can be understood as 'integrating rights norms, standards, and principles into policy, planning, implementation, and outcomes assessment to help ensure that conservation practice respects rights in all cases, and supports their further realization where possible' (Campese, Sunderland, Greiber, & Oviedo, 2009, p. 8). The universality and the indivisibility of rights are accepted, where all rights need to be considered in order to achieve human wellbeing.

Within those are substantive rights, which encompass a great variety of rights such as the right to self-determination, right to culture and religion, right to life, health, indigenous people's right to maintaining their traditional ways of life, etc. There are procedural rights such as the right to information, to participation in decision-making and access to justice, which are usually an entry point to achieving other types of rights. This is important because many substantive rights are difficult to achieve on their own. For instance, the guarantee that you have the correct information and that you will be part of the decision-making process can ensure that you are more prepared to fight for the fulfilment of other (substantive) rights (Campese et al., 2009). This is why the RBA to conservation works with a variety of rights that are recognized in international treaties and conventions, national legislation and customary and local norms. The connection between conservation and rights

appear in distinct formats in these regulations, sometimes appearing more in 'soft laws' and non-binding regulations that provide principles and set directions for the 'hard law'.

Some of these regulations can serve to illustrate the wide legal relationship between nature conservation and rights. Principle 1 of the 1971 Stockholm Declaration (United Nations Conference on the Human Environment, 1972) makes a fundamental link between quality of life and the environment when it states that 'Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and wellbeing, and he bears a solemn responsibility to protect and improve the environment for present and future generation'. The Convention on Biological Diversity and the Nagoya Protocol recognize, among other things, the relationship between the wellbeing of indigenous communities and the conservation of the environment. It also has provisions on the need to protect local culture and traditional knowledge (Convention on Biological Diversity, 2010; United Nations, 1992). They also highlight the need for consent and participation of communities, which is also present at the International Labour Organization 169, a legally binding international instrument that deals with issues of indigenous and tribal peoples' consent and management of resources. ILO 169 states the ownership of these communities of their traditional land and the need for conservation of resources (International Labour Organization, 1989).

More recently, the 2007 UN Declaration on the Rights of Indigenous People focuses on the rights of these communities to their land and the need to protect their environment. Its provision discusses issues of land ownership, prior consent and conservation of the environment in order to maintain the wellbeing of these populations (United Nations, 2007).

Also, it is interesting to note that some key principles of human rights found in the Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR) can be used in relation to conservation such as the right to choose a place of residence (article 12 ICCPR), right to the highest attainable standard of health (article 12 ICESCR) or the right to adequate food or housing (article 11 ICESCR) (Siegele, Roe, Giuliani, & Winer, 2009).

An important aspect of the rights discussion is their historical focus on individual rights holders. On some occasions, however, there is the recognition that

rights can be held collectively, such as the collective right to fish or hunt and the collective ownership of land (Greiber et al., 2009). Collective rights are certainly a major key to understanding the discourse of conservation with justice and it highlights some of the challenges of the RBA to conservation.

Specifically focusing on the discussion of land rights, an important concept to look at is land tenure, which can be understood as the 'relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land' (FAO, 2002, p. 7). Land in this case, is understood as the territory as a whole, which includes water and forest. This concept of land tenure determines how access and control of land occurs and what are the rules that govern this relationship (FAO, 2002). Thus, when we talk about land tenure rights, we must look at a bundle of rights that consider the right to access a territory and extract forest resources; the right to lease or sell the land to third parties; the right to prohibit others from entering land and the right to manage the territory according to their own needs (RRI, 2012).

Ostrom and Schlager (1992) define these rights within the discussion of common pool resources, where they identify rights that are within what they call the operational level and the collective choice level. The right to 'access' a certain physical space and the right to 'withdraw' the resources from these areas are part of the former, that is concerned with the operation of things. The collective choice level determines who can participate at the operational level. This group consists of management rights, which regulate the use of land; exclusion rights, which gives a group the right to exclude others; and alienation rights, which involves selling or leasing the above collective choice rights (Schlager & Ostrom, 1992).

The right to land is key in the discussion of biodiversity conservation as the assurance that the population has the right to land creates incentives to protect the environment through sustainable management of natural resources (Millennium Ecosystem Assessment, 2005; World Resources Institute, et al., 2005) and generates recognition that local populations are the primary rights-holders, as they have been the primary contributors to conserving nature (Grazi Borrini-Feyerabend, Pimbert, Farvar, Kohtari, & Renard, 2004). Specific to the literature of natural resource management is the discussion about governance of common property resources (CPR), which can be seen as a way of implementing governance that is inclusive, decentralized and that allows for the sustainable use of resources (Ostrom, 1990).

There are three models of CPR that have influenced natural resource management policy. The first model is the tragedy of the commons that symbolizes the unsustainable exploitation of natural resources in areas where many individuals share common resources (Hardin, 1968). This is a situation where individual exploitation of resources goes beyond the optimal economic level so private interests are stronger than collective benefits (Dasgupta & Heal, 1979; Ostrom, 1990). A second model is the prisoner's dilemma, which is a non-cooperative game where individuals have full information about the rules of the game, but there is no communication between them. This is a situation where individual rational choice might result in a non-rational collective result (Dawes, 1973; Ostrom, 1990). The last model is the logic of collective action, which questions the group theory logic that rational individuals with common interests can engage with the group to pursue their collective interests (Olson, 1965). Olson (1965) challenges this assumption because, unless there is some sort of coercion, individuals will have no incentives to contribute to the collective benefit, as it is difficult to exclude an individual from a collective good. These three models highlight the free-rider problem, where it is easy for an individual to free-ride on the efforts of others to achieve collective benefit. This has resulted in policy prescriptions that advocate State regulation of natural resources or privatization as the main avenues to avoid the tragedy of the commons (Carruthers & Stoner, 1981; Demsetz, 1967).

However, in her seminal work, Ostrom (1990) suggests a different policy alternative, where a cooperation strategy between individuals would occur with costs, conditions and sanctions being designed and agreed by members of the group. In this situation, common property resources are of "communally owned resources- that is, those resources for which there exist communal arrangements for the exclusion of non-owners and for allocation among co-owners" (Berkes & Farvar, 1989, p. 7). It is a regime in which individuals have rights and responsibilities, there is a management authority accepted by the group, there are incentives to follow institutional arrangements and also compliance is achieved by agreed sanctions (Bromely & Cernea, 1989; Hall, 1997a).

There are differences among communities in their capacity to create and/or alter institutions that will work towards a successful governing of common natural resources. A theoretical explanation would be based on an assumption that the benefits communities would receive from pursuing collective interests would

outweigh the costs and more direct benefits of individual action (Gibson, McKean, & Ostrom, 2000). Hall (1997) explains the rationale of CPRs through a modified, 'collective choice' framework, where individuals act according to the benefits and costs generated to themselves and to the community, and where behaviour is influenced by local conditions. In this framework, there are enough incentives for resource-users to conserve their environment as they "depend strongly for their survival on natural resources, which are coming under increasing demographic, technological, political, commercial and environmental pressure" (Hall, 1997a, p. 15). These calculations are not only made at an economic level but are also based on less tangible factors arising from a collective solidarity when faced with common threats (Bates, 1988), such as the misuse of the traditional knowledge that belongs to the community. Also, in this framework, individual behaviour is influenced by other people's choices, which can generate collective action if there is an appropriate local context such as suitable information-sharing, consultative and organisational instruments and incentives in place (Hall, 1997a).

Although there is no single theory that fully explains the success of certain communities in sustainably managing common resources, case studies from the literature show that "common property can be an efficient form of property rights in relationship to common-pool resources (...) rather than being the source of inefficiency, as is still argued in many resource policy textbooks and policy papers" (Gibson et al., 2000, p. 228). These studies show how variables such as clearly defined borders, gradual sanctions, monitoring (Ostrom, 1990) dependence on forests for livelihood (Agrawal, 2000), group size (Wade, 1988) and past experience of cooperation (Baland & Platteau, 1996) can potentially influence the benefits or the costs of collective action.

It becomes clear that there is a relationship between policies aimed at biodiversity conservation and how that can have an impact on the rights of the local population. In this scenario the right to land and to the management of natural resources only makes sense if it guarantees the right for traditional governance models and customary norms.

The demand of indigenous and traditional communities for the right to land has been present in the history of many of these societies. Communities rely on collective land ownership to protect their livelihoods, their traditional knowledge and their norms and traditions. Taking into consideration this relationship, having only

land security is not enough if not accompanied by respect for the customary norms of land management and the traditional access to natural resources, including traditional governance models. This is directly linked to the collective right to culture, which is present in these communities' struggles for recognition and protection of their traditional knowledge. The violation of the right to land has a direct effect on the ability of these communities to protect their culture and knowledge as there is a direct link between conservation of nature and conservation of culture (Colchester, 2008; Greiber et al., 2009).

Within this scenario of respecting traditional norms, it is important to highlight the right to participation, but one that respects traditional models of governance and decision-making. In the discourse of RBA to conservation this is essential in order to guarantee that the rights of communities are protected throughout the process (Colchester, 2008). The right to free, prior and informed consent, which is guaranteed by ILO 169, by the CBD and by national legislation should be a normal procedure for any activity that might have any effect on the wellbeing of these populations. It is only by ensuring full participation and an appropriate consent process that RBA to conservation will be put into practice.

3.5- Equity and Fairness in Benefit-sharing

It is within this discussion of biodiversity conservation and rights that the question of benefit-sharing will be examined. The Convention on Biological Diversity and the Nagoya Protocol set up a scenario where the access to genetic resources and traditional knowledge should be linked to a process of benefit-sharing that is fair and equitable. There is an understanding, however, that achieving a fair and equitable benefit share is not a simple task, where the results can be influenced by the lack of participation of communities (Swiderska, 2001; Torri, 2009), limited national legislation (Dávalos et al., 2003; Suneetha & Pisupati, 2009) or even high expectations from communities of financial returns (Greene, 2004). The question addressed in this research is how to achieve fair and equitable benefit-sharing as proposed by the CBD, and what are the challenges in doing so.

The Convention on Biological Diversity changed the concept of nature as human heritage and a common good to nature as part of a country's sovereignty. In an ideal world of equitable relations, the free exchange of natural resources and

knowledge would lead to the benefit of the whole of humanity. New products would be shared between those that provided the natural resources and those that owned the technology. The world's biodiversity would be used for the common good. Instead, in the real world, access to genetic resources and traditional knowledge had only reinforced historical patterns of oppression, inequalities and violations of rights. The biodiversity-rich countries and their marginalised communities were not benefiting from any of the free exchange of nature (Schroeder & Pisupati, 2010). On the contrary, expensive and unaffordable final products, protected by patents, were being sold back to the same countries and communities that provided the resources and knowledge in the first place. The common good was channelled to benefit the few.

This discussion, which influenced the construction of the CBD, was between countries from the North, which wanted to guarantee their access to genetic resources and traditional knowledge, and countries from the South, the biodiversity-rich countries that wanted to be compensated for the on-going unequal use and share of the resources that were found in their territory.

Despite the CBD being the product of these regional and international economic and scientific interests, there is the view that the CBD also put forward a discussion of morality and justice that was not previously found in the system of nature as a 'common good'. The first and second objective of the Convention, conservation of biodiversity and its sustainable use, can be seen as an attempt to bring forth the view of intergenerational justice, in which future generations have the same right to enjoy and use nature as we have in the present (Kleba, 2013; Schroeder & Pisupati, 2010).

It is in the third objective, however, that is possible to see more clearly a call for justice, since it focuses on fair and equitable benefit-sharing. The most obvious question is, then, what is fair and equitable in a discussion of benefit-sharing? Are there any elements that could define fairness and equity? This is an extremely relevant question because national legislation on ABS is being constructed based on the premise that there is a need to achieve fairness and equity in benefit-sharing contracts and this has a direct effect on how this legislation is regulated nationally. The challenge to this, however, is the fact that neither the Convention nor the Nagoya Protocol define fairness and equity (Kleba, 2013). There is no set objective norm that establishes or defines rules that can guide a benefit-sharing contract to achieve this.

In this sense, we can look at different types of justice to try to understand how fairness and equity is portrayed in the CBD and what are the possible elements that can help us to achieve them. Initially, the third objective can be seen through the view of justice in exchange, where for a contract to be just it is only required that the two parties agree on the content of the contract, considering there is no coercion or deception in place. It is the search for justice between providers and users of biodiversity and traditional knowledge (Schroeder & Pisupati, 2010). Through this view, if a community and a company sign a benefit-sharing contract, this would be considered fair as in theory both agreed to the terms in the document signed. The problem with this assumption of justice lies in the fact that there are many components of the parties involved that could influence this voluntary agreement, such as different negotiating skills, lack of information or power inequalities between actors; thus inevitably leading to unfair benefit-sharing.

The view of procedural justice could address these issues and answer for the need of fairness and equity, where in order to have a just benefit-sharing agreement it is essential to have a fair and transparent process. The premise is that a just process would inevitably lead to the ideal, just outcome (Solum, 2004). Morgera (2015) highlights that despite the possibility that procedural justice might be able to contribute to a just ABS contract, this is still extremely difficult to achieve due to the existing unequal power relationship between communities and bioprospectors, where there is a disparity in technological capacities, inequality in accessing information and unbalanced access to resources and knowledge (Morgera, 2015). In this scenario, the prior informed consent (PIC) and the mutual agreement terms (MAT) become the key in the path towards fairness and equity in benefit-sharing. Although the CBD does not give an indication of elements of a fair benefit-sharing process, it has the PIC and MAT as elements that can contribute to that (Bachmann, 2011).

According to this view, there are some conditions that need to be taken into consideration if PIC and MAT will serve as a direction for fairness and equity. Parties must be able to fully understand the consequences of their agreement, they cannot be coerced in any form, no parties should take advantage of each other's predicament, there should be equal power relations between the parties, appropriate representation and appropriate information sharing (Bachmann 2011). However, it is important to remember that the Nagoya Protocol leaves the details of the mutual agreement to

private negotiation between users and providers (Morgera, 2015), weakening the possibility of ensuring that these conditions are respected.

For procedural justice, participation is key to ensuring fairness of the process. Not any type of participation, but one where people are actually heard and their input considered in the process. The participation of people involved, it is understood, would guarantee legitimacy (Solum, 2004) and in a discussion of ABS it would get closer to a fair and just result.

The question of how to achieve the third objective of the Convention would be focused on the mutual agreement terms, prior informed consent and participation, taking into consideration the conditions outlined above. However, experiences of ABS have shown that there are other process components that can have a direct effect on the final agreement, affecting the perceived fairness of the process and therefore the outcome.

The Hoodia case study is emblematic as it highlighted how ignoring traditional customary norms and structures, such as the San being an egalitarian society with no hierarchy, created a system of representation in the ABS negotiation that was not seen as legitimate in the eyes of many members of the community, causing internal tensions and conflicts (Vermeylen, 2007). Similarly, the Peruvian case study between the International Cooperative Biodiversity Groups (ICBG) and indigenous people of Aguaruna shows that local/traditional forms of representation are not always the path chosen for a dialogue with outsiders. It is often expected that indigenous people would have a centralized representation structure, when this does not always reflect a legitimate and traditional representation system (Greene, 2004).

The recognition of cultural and traditional systems therefore seems to be an important component in these examples for achieving fair benefit-sharing. It is not only necessary to ensure meaningful participation as proposed by procedural justice, but a participation that reflects local traditions and that is representative of local knowledge is necessary. The need to value traditions and local knowledge is present in article 8(j) of the CBD, which says that each contracting party shall ‘ (…) respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and

practices' (United Nations, 1992). The concept is already introduced in the discourse of biodiversity protection, but rarely put into practice.

Cognitive justice can then play a role in introducing an important idea of fairness to the discussion, one that will add to procedural justice analysis. Cognitive justice is present in the discussion of democratization and diversity of technology and science, and it proposes that all systems of knowledge should be accepted as valid and should be taken in consideration in the decision-making process that affects people's lives (Leach & Scoones, 2005). That is not to say, however, that it should be the validation and an uncritical acceptance of all forms of knowledge. What this suggests is that different ways of knowing should have a space for dialogue and debate (Velden, 2009). In this context, the involvement of usually marginalized systems of knowledge, such as indigenous and traditional communities' ways of understanding the world, is very important.

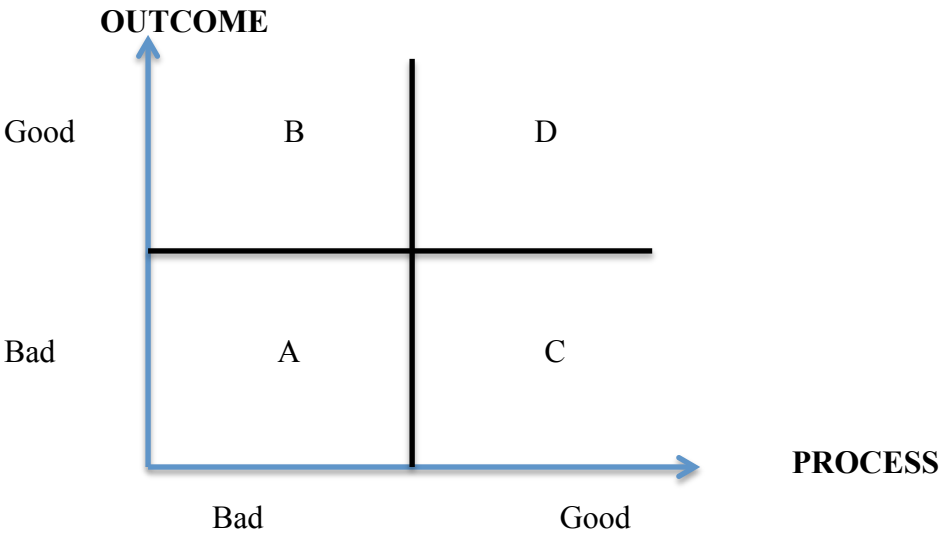
With cognitive justice, participation is not an epistemic challenge as it still values expert knowledge the most. Participation might help to democratize activities involving a greater number of people, but it still regards the knowledge and system of the periphery as less important or real. Cognitive justice works with the principle of equivalence, where there is a plurality of knowledge systems that are accepted as equal. It goes against the belief that there is an evolution from folk knowledge to western science. In this scenario, indigenous people, the patient, the healer are all scientists and thus should be engaged with other forms of knowing (Visvanathan, 2005, 2006). Furthermore, as Visvanathan states, cognitive justice 'recognizes the relation between knowledge and livelihood and lifestyle. It is in this context that it holds that policy must not be articulated within one monochromatic frame of knowledge but within an existential plurality of them' (Visvanathan, 2005, p. 92).

The use of both procedural and cognitive justice can guide the process to answer the question about fairness and equity in benefit-sharing. Procedural justice would work with the process of acquiring benefit-sharing, having a direct influence on power inequalities that exist in the relationship between user and provider of biodiversity; cognitive justice would ensure that there is the recognition of local and traditional knowledge systems throughout the process. Once these components are taken into consideration, the chances for fair and equitable benefit-sharing are greater (De Jonge 2011).

This research will then take this as a starting point, the position that in order to have a fair and equitable benefit-sharing arrangement, it is necessary to focus on the process (procedural justice) and it is essential to ensure that local knowledge systems are recognized and valued (cognitive justice). Within this scenario, there is a need to understand which principles form part of this process and how local knowledge can also influence the fairness of the agreement. In order to do this, the rights-based approach will be applied to the analysis of benefit-sharing, as the use of rights as a principle can be a useful tool for looking at the process of acquiring benefit-sharing.

In the discussion on rights holders and duty bearers it is important to understand that rights can be respected, protected and/or fulfilled (United Nations Development Programme, 2000). Significant to this analysis is the perception that the RBA is not only concerned with outcome but also with the quality of the process by which rights are realised, focusing on rights holders and duty bearers' responsibilities (Jonsson, 2003). This is an essential as it will allow for a holistic analysis of the process of benefit-sharing as well as the outcome itself, bringing issues of procedural justice to the forefront.

The figure below shows the two-dimensional space for measuring outcome and process in a development project, where the starting point is usually at A and the aim point is D as the optimum result for both outcome and process.



Source: Jonsson (2003) p. 27

If we take this picture to represent a benefit-sharing agreement, we have stage D as the achievement of a fair and equitable benefit-share (according to procedural justice), where both the outcome and process of reaching the agreement can be considered 'good' and appropriate. As we will see in the case study of the quilombo of Oriximiná, there was an equal monetary benefit-sharing contract between community and University. However, it becomes essential to question whether this outcome necessarily implies fairness and equity or whether the process of respect, support and fulfilment of rights plays a more relevant role in ensuring a fair and equitable benefit-sharing agreement.

According to the picture above, the quality of the process to implement rights would ensure that an access reaches stage D. For Jonsson (2003) there has been much less monitoring of the quality of the process because the idea of what a 'good process' is has not been properly discussed and identified.

For the purpose of this thesis, however, the process will be composed of a variety of rights and principles that have been identified in the discussion of a rights-based approach to conservation and that are taken to the context of access and benefit-sharing. The right to be consulted (free, prior and informed consent), the right to participation, the right to information, right to culture (to maintain their traditional knowledge and recognition of customary norms), and right to land security form a set of principles that are relevant for the discussion of benefit-sharing and that could be considered a 'good process' whenever these rights are fulfilled.

Thus, in order to better understand the 'process', this research is going to take a framework developed to analyse the potential of RBA for conservation and adapt it to consider benefit-sharing.

Table 2: Scope for potential RBA to access and benefit-sharing

Disregard	**Address Superficially**	**Respect**	**Support protection**	**Support fulfilment**
Allow benefit-sharing agreements to undermine community rights	Address community rights in an insufficient manner or only when convenient. Using rights as a 'tick box' exercise	Do not infringe on or interfere with people's enjoyment of their rights	Assist, encourage and influence duty bearers to refrain from rights infringements	Actively support the further, progressive realisation of rights through strengthening traditional knowledge and customary norms. Decline of power asymmetries

Based on Campese, J. Rights-based approach to conservation: an overview of concepts and questions in Campese, J. , Sunderland, T., and Oviedo, G. (eds.) 2009 Rights-based approaches: Exploring issues and opportunities for conservation. CIFOR and IUCN. Bogor. Indonesia. p. 14

Strengthening of RBA
Fair and Equitable Benefit-sharing

This table presents a scale of rights, where to the very left is a situation where rights are ignored or addressed superficially, being a mere 'tick-box' exercise in the process. Towards the right end of the table we have respect, support/protection and fulfilment of rights. The last one is the ideal situation where there is the progressive realisation of rights through the strengthening of traditional knowledge and customary norms. This is the situation that allows for empowerment of communities and more

balanced power relations.

As rights are being secured through respect, support and fulfilment there is a strengthening of the rights-based approach and also the possibility of fair and equitable benefit-sharing. This table brings the concept of procedural and cognitive justice to practice, where in order to achieve an outcome that is fair and just it is necessary to look into the process but with awareness of the need to respect local knowledge. The rights discourse will allow for a look into how the process is constructed and how the idea of justice can be achieved.

However, the table on its own cannot be a sole tool of analysis, as it will not allow for a deep investigation of the role of rights in an ABS agreement. It is necessary to question not only whether rights have been respected, supported or fulfilled but also how this happened and what were the different dimensions that were taken in consideration.

This thesis proposes a four-step guideline on how to assess the different levels of rights fulfilment, which would allow for a deeper analysis of how these rights are being implemented in an ABS agreement.

Table 3: Four - Step Guideline

Step	What is it?	Questions/Actions
1	Scenario Analysis	(i) What rights need to be considered in this ABS agreement? (ii) Who are the main rights holders and duty bearers? (iii) What are the responsibilities of each of these actors? (iv) Is national and international legislation in place that supports the fulfilment of rights?
2	Table: Scope for potential RBA to access and benefit-sharing	(i) According to Table 1, where are each of the rights placed (disregard, address superficially, respect, support, fulfilment)?

3	Dimension of rights: costs, type of participation and decision-making, level of information sharing, accountability and transparency, land security, culture and traditional knowledge.	(i) For each right identified, ask the relevant question found in the specific dimension. See Table 3 for details.
4	Power and Rights	(i) How to ensure that the RBA is respected in the ABS process? (ii) Do external institutions (NGOs, Government) play a role in ensuring the fulfilment or rights? If yes, how? Which institutions can be identified? (iii) How to ensure that the bioprospector institution does not hold all the power? (iv) How to ensure that local power structures are challenged?

Table 4: Dimension X Questions in relation to the set of rights identified: right to be consulted, to participation, to information, to culture and to land tenure

Dimensions	**Questions to be asked for the final analysis**
Costs	- Are there any costs attached to the fulfilment of this right? - Who is responsible for these costs? - Could this be a factor that influences the respect, support or

	fulfilment of a certain right? *Costs do not necessarily mean monetary costs, and could involve non-monetary costs such as the time an individual or group spend in ensuring a right is guaranteed
Type of participation and decision-making	- Are all sectors of the society participating, including vulnerable groups such as women? - Is the participation process representative of the territory and of the local organizations? - Is there an appropriate process of free, prior and informed consent? - Does everyone have the chance to be heard and are their opinions seriously taken into account by decision-makers? - Are there appropriate spaces for participation? - Do participation and decision-making processes respect local customary norms?
Level of information sharing	-Was information shared in an appropriate language and format? -Was information relevant to the project proposed? -Was there enough time to share and assimilate the relevant information? -Was there any need to capacitate communities on the topic and if so who was responsible? -Was all information considered, including information coming from indigenous/traditional communities?
Accountability and transparency	-Are there any independent mechanisms in place for conflict resolution?

	-Are there internal and external mechanisms that ensure transparency and accountability of the processes being put in place?
Land security	- Do communities have actual control over their territory and resources? (i.e. do they have control over who enters their territory?) - Do communities have the necessary skills to lease the land to third parties and still guarantee the sustainable exploitation of their land?
Traditional norms	- Are all rights being discussed, considered and fulfilled according to customary and traditional norms?

This four-step guideline can be a useful tool to assess how an ABS agreement has respected, supported or fulfilled the set of rights identified and how deep these rights have been considered. By answering the questions proposed, it is possible to understand the scenario of the ABS, its main stakeholders and how rights have been dealt with in the process. Specifically, the last step of the guideline will ensure that an important discussion about power happens when discussing rights. The rights-based approach will be only fully functional if it is able to break with existing power structures, allowing for a more equitable relationship between vulnerable groups and the usual power holders. Thus, the questions proposed at this step will allow for consideration on how to best tackle the power inequalities and ensure that the RBA is implemented in the process. This guideline will allow for both procedural and cognitive justice to be considered, increasing the possibility of reaching equity and fairness in the ABS.

It is important to point out that the Nagoya Protocol and the CBD do not provide for a clear path to reach an equitable and fair benefit-sharing agreement, despite providing countries with some general guidelines that influence the construction of national legislation regarding ABS (Kleba, 2013). Thus, fairness and equity are understood as relative concepts, meaning different things for different

actors. In this context, countries are discussing how best to ensure that both users and providers of biodiversity can have justice in a benefit-sharing agreement.

If one looks at the principle of justice in exchange, the mere fact that there is an agreement between two parties would imply a just contract. It would be even more just if the monetary benefits were equally shared between communities and bioprospectors, such as in the case of the quilombo of Oriximiná. Indeed, this case study has not only an outcome (i.e. benefit-sharing contract) that stands out from other benefit-sharing agreements in the country, but it is also perceived to be a good example of access in Brazil and one that followed all the required legal steps to access biodiversity and traditional knowledge (Kishi, 2009; Santilli, 2009).

However, through a closer look at this case study, this research is going to question whether the process of acquiring benefit-sharing is as important as the contract signed. Furthermore, it will consider the respect for traditional knowledge and customary norms as significant, if not essential, components in the process. Through this, fairness and equity would not be able to be judged simply by the outcome and apparent agreement of the terms, but also by looking at how the process was constructed and which values were taken into consideration.

The four-step guideline will lead the analysis of the case study of Oriximiná and also inform the discussion of the Bailique Community Protocol, which despite not being a case of access and benefit-sharing, can be seen as an instrument that was built on the basis of rights and can be used to empower communities to negotiate with bioprospectors, understanding their rights in the process and as a result, having a better chance to sign a contract that truly reflects fairness and equity for all sides.

The next chapter will look closely at how data was collected in both of these communities, discussing the methods used and the challenges faced to gather necessary information.

4- Methods and Field Details

4.1 – Introduction

Qualitative research has been used as a main method in the study of Amazonian communities, allowing for the use of different types of data collection

(field immersion, participant observation, interviews, field notes, etc.) that can help the researcher understand the reality of the studied communities. Specifically ethnography research has been used historically in anthropological studies in the region, such as the classic study by Viveiros de Castro with the indigenous Yawalapíti (Viveiros de Castro, 2002) and the study on the eschatology of the Kraho indigenous people (Carneiro da Cunha, 1978, 2009b).

Ethnography as a methodology can be understood as being concerned with how people interact and are influenced by the culture in which they are inserted, acknowledging that there is not one truth but different realities true to different societies. Ethnography looks at how people or a group of people live their lives in their specific cultural contexts (Atkinson & Hammersley, 2007; Draper, 2015).

Considering this thesis is going to use two empirical case studies to help identify evidence of the process of fairness and equity in cases of access and benefit-sharing, the choice of methods used took inspiration from previous anthropological studies of the region, choosing methodological elements that proved useful for answering the question proposed: how to achieve fair and equitable benefit-sharing as proposed by the CBD, and what are the challenges in doing so.

According to Rist (1984), ethnography can provide useful evidence for research as it considers the multiplicity of perspectives that exists among people and how those perspectives may change over time. It is further able to use diverse sources of evidence, which avoids the risk of using one single unreliable source (Rist, 1984). The methods used in this thesis were interviews, field notes, participant observation and archive research.

The first case study of this research is the Oriximiná quilombo, which discusses specifically the access of genetic resources and traditional knowledge of this community, and therefore is the centre of this analysis. The second, about the Bailique Community Protocol, discusses how communities can address some of the challenges identified in the Oriximiná case study that influenced the fairness and equity of their ABS agreement.

The quilombo of Oriximiná has been the focus of anthropological and historical studies, which used mainly qualitative research and field visits. Specifically relevant for this thesis is the classic work ‘Negro dos Trombetas’, a study that used extensive archive material and interviews to examine the many threats of this population throughout their history (Acevedo & Castro, 1998a); the historical study

on the arrival of this population in their current territory (Funes, 2000) and the more recent ethnography of the quilombolas' 'indigenous sociology', a study that is a result of twenty months of immersion in the field (J. F. Sauma, 2013).

The literature on the Bailique territory is much more limited as there has not been any extensive research on this community and not many independent analyses[15] of the community protocol project. The few academic articles identified (Pena, 2014; Pompilio, 2009) served as a contextualization of the territory.

For both case studies there was a need to collect data from the field as there has not been any research on the ABS process that happened at the Oriximiná quilombo, other than articles written by the bioprospectors describing the access; and there has been no research on the Community Protocol as a potential tool to acquire fairness and equity in ABS.

The next sections will look at each method used for each case study separately, as they differ in some respects.

4.2- Why the Choice of the Oriximiná Quilombo as Main Case Study?

My initial research plan was to analyse a case study that was considered an example in Brazil of good practice in ABS and then compare it to a case study that did not accomplish a satisfactory benefit-sharing contract. The bioprospection agreement between the Federal University of Rio de Janeiro (UFRJ) and the Oriximiná quilombola community is briefly mentioned in two articles (Kishi, 2009; Santilli, 2009) as an important case study because it is the first bioprospection agreement in Brazil to access genetic resources and traditional knowledge, following correct legal procedures such as acquiring local consent and an anthropological report, and, according to articles, there was appropriate contact with the community. This became the choice for the ABS case study that followed good access practice.

Once I was in the field and able to get more details on the ABS process from the community's perspective, the case study was seen not to be so ideal, with important challenges that directly influenced its ability to guarantee fair and equitable benefit-sharing. The case study had enough elements to contribute to the discussion

[15] Considering the Bailique Community Project is an ongoing project, most of the analysis has been made by researchers directly involved in the project

proposed in this research and it was decided on as the main case study, with no comparative case study.

The quilombo of Oriximiná is composed of 37 communities divided into eight territories (see Chapter 5 for a description of their territory). Bioprospection activity was developed in the communities of two of the territories (Erepecuru and Trombetas) and this research is concerned specifically with these communities, in order to work with people involved in or with knowledge of the ABS agreement.

4.3-The Oriximiná Quilombo Case Study

For this specific case study, the following methods were used: analysis of documents related to the authorization given to the Federal University of Rio de Janeiro by the Genetic Heritage Management Council (CGEN), semi-structured interviews (with communities, university researchers, NGO Comissão Pró-Indio and Genetic Heritage Department), participant observation and field notes.

4.3.1-Document Analysis

As the institution responsible for giving authorization for access of genetic resources and traditional knowledge in the country, the Genetic Heritage Management Council (CGEN) must keep records of the whole process: from the request of authorization until the end of access. These are public documents, although they cannot be photocopied, and the bioprospection institution can request confidentiality of certain parts. Usually, confidential areas are related to the scientific names of the genetic resources accessed, the details of the benefit-sharing agreement and information about the final product, as these are market-sensitive.

The documents related to each case of access of genetic resources/traditional knowledge are a mix of: (i) emails exchanged between CGEN and the bioprospecting institution; (ii) copies of all documents produced during the access process, such as the consent form, the forms completed by the bioprospection institution containing details about what was accessed, where and when; (iii) information about the benefit-sharing contract and (iv) any other form of documentation that might be relevant to the process of acquiring authorization. All these documents create a storyline of how bioprospection happened, what issues were looked at, the problems identified and how they were resolved.

During January and February 2012 I visited the office of the Department of Genetic Heritage (DPG) located in the capital of Brazil, Brasilia, to access the documents related to process number 02000.002597/2006-56 entitled 'Request for Authorization for the access to the component of the genetic heritage and associated traditional knowledge for bioprospection: UFRJ and Oriximiná Quilombo'. The DPG acts as the Executive Secretariat of the Genetic Heritage Management Council.

During these months I took notes of the process, which served as a guideline to identify the steps taken by the University to engage with the quilombolas of Oriximiná and get their consent to access their biodiversity and knowledge. The analysis of the process also allowed me to verify that the University had followed all necessary legal steps prior to access, as the literature had indicated.

4.3.2-Data Collection

I visited the communities of the Oriximiná quilombo on three different occasions. My first visit was in March 2012, where I spent the first week observing the University researcher working with the communities, and the second and third week interviewing people and visiting the relevant communities (after the University researcher left). The second visit was in May 2013, when I visited the headquarters of the Association for the Remnants of the Quilombola Communities of Oriximiná and talked with the newly elected leadership. My third visit was in September 2016, when I visited all the communities again to do more interviews on a specific topic and confirm some of the impressions and data from my first visit. Below is a description of how data was collected in the different phases of this research. Because of the tensions that exist in the territory and wishing to preserve the safety of the interviewees, the names of community members interviewed are not displayed in this thesis.

(I) ENTERING THE COMMUNITY

The Oriximiná quilombola communities are located in the Brazilian State of Pará, in an area called 'Calha Norte' which is characterized by a mosaic of protected areas with a high level of biological diversity. The communities must be reached by a 12-hour boat trip (approximately 150km) from the city of Santarém (reached by plane) to Oriximiná, a city of about 71,078 inhabitants in 2017 (Instituto Brasileiro de

Geografia e Estatístca -IBGE, 2017). From Oriximiná another boat, up the Trombetas river, finally reaches the communities. As there is no public river transportation that covers this part of the river, the community's boat or a rented one must be used to reach the quilombo. A small boat with a modestly powerful engine reaches the first quilombola community (Agua Fria) in about four hours. The map below shows the eight quilombola territories and communities along the rivers are marked in red dots.

Map 1: Quilombola territory

Source: http://www.quilombo.org.br/territorios

According to the anthropologist O'Dwyer, who has extensively researched this population, the quilombolas of Oriximiná practice a form of 'conscious isolation', a term coined by her to explain a defensive isolation practiced by the community towards outsiders. This happens not because of geographical or cultural characteristics, but as a response to the many external new events in their territory that affect their way of life, such as mining or the conservation units developed in their area (O'Dwyer, 2008).

As such, entering their territory is not straightforward. Because of this conscious isolation, an external actor needs to gain trust in order to be accepted by the community. Physical access to the communities must be negotiated (as there is no

public transport to the area) with the gatekeeper, but more importantly it is necessary to negotiate with community members to accept your presence. A local leader must introduce the outsider to the community or accompany this person throughout the visit. As stated by a coordinator of the Association for the Remnants of the Quilombola Communities of Oriximiná (ARQMO): "There is a deal between ARQMO, the 'area association' and the communities that says that any researcher or (...) whatever kind of visit from outsiders not accompanied by someone from the coordination (ARQMO or area association) or that cannot prove the issue was discussed with coordinators, will not be accepted by the community" (Interviewee 23, 2012).

My first visit to the community had two main objectives. First, I was accompanying the University researcher who was returning to the community to get consent for the technological development of two products that were the result of their access, and also to discuss a new benefit-sharing contract in case these products were to be commercialized. My aim was solely to observe the relationship between the communities and the researcher, and what kind of information was exchanged between them. The second objective of my first visit was to interview the communities about the access after the researcher left the area.

The researcher introduced me to the Association for the Remnants of the Quilombola Communities of Oriximiná (ARQMO) as a researcher, whose PhD was an evaluation of the access he was exercising in the community. As will be explained in more detail in Chapter 5, the researcher is well known in the community as he has been visiting since 2006. Furthermore, he is a charismatic person who has created strong bonds with the quilombola communities, especially with the knowledge holders and 'forest guides', who are the men and women who know the forest and can identify numerous plant species. It was the researcher's vow of confidence in me that won the trust of the Association, allowing me to enter their territory.

It should be pointed out that it was necessary to ensure understanding at the community level that my research was independent from the University's research. This was essential in order to gain trust from my interviewees when the topic turned specifically to satisfaction (or not) with the ABS in their territory. I needed to certify that communities would critically talk about the University project without measuring their thoughts. In order to achieve this I ensured that (i) interviews happened only when the University researcher was not in the territory (during the first visit) in this

way physically detaching myself from him, (ii) before each interview I explained the aim of my research emphasising that it was not part of the ABS agreement, (iii) I offered ARQMO coordinators to do an analysis of the ABS agreement once my research was concluded. This last point will be done in the format of a workshop in 2019 as feedback to the community about my findings. Also, this workshop will serve to inform the community about new legislation on access, Law 13.123.

(ii) First Part of the Field Trip: Observing the University Researcher and Making Contacts for Future Interviews

During the first four days of the field trip, I accompanied the university researcher and his team during the visits to communities where they were accessing genetic resources and traditional knowledge. It was in their original schedule to visit the seven communities they work with, but due to delays in the schedule and some communities not being available to meet with them, they met with only three communities (Bacabal, Varre Vento and São Joaquim).

These meetings had the aim of explaining to communities the current state of the ABS project and clarifying any doubts related to the access that had already happened. After the meetings occurred, some community members were interviewed about their knowledge on a specific plant, which was related to the technological development that was happening at the time. During these meetings I was an external observer, making notes about the interaction that took place, about the type of information shared, how the information was shared and my perception on how much the quilombolas understood the message that was being conveyed.

After their meetings, the university researcher introduced me to the elders of the community, explained my role as an external researcher and arranged for my visit the following week. During this period I identified who would be my first contact in each of the communities I was going to visit in the next days.

After these 4 days, the University researcher went on a field trip in the forest to collect more plants, which lasted 6 days (during which I started my interviews). Upon their return, I joined them at the city of Oriximiná to observe the meeting that took place between ARQMO coordinators and researchers. The agenda for this meeting was to present an addendum to the benefit-sharing contract, this time

specifying the percentage of the benefits to each part and what would be the final product. I sat as an external observer in this meeting.

(iii) Second Part of the Field Trip: Interviewing the Oriximiná Quilombolas

While the University researchers were collecting more materials for their research at a faraway location, I started to visit the communities as it was essential to carry out interviews without the presence of the University in order to avoid any level of influence on my interviewees. I visited all seven communities involved in the ABS project. The communities of Pancada, São Joaquim, Espírito Santo and Jauary (Erepecuru territory) were visited during the first week, and the communities of Serrinha, Varre Vento do Trombetas and Bacabal (Trombetas territory) were visited after I returned from the meeting in the city of Oriximiná. It is important to highlight that I was accompanied by an ARQMO coordinator while at the Erepecuru territory and by a coordinator from the Trombetas Land Association while on Trombetas territory, guaranteeing in this way my access and approval in the communities.

I stayed an average of one or two nights in each community, and that was decided by the ARQMO coordinator, although I did have the opportunity to negotiate a longer or shorter stay depending on my needs. I stayed in the house of the eldest of the community, and the first interviews were done with this person. From that point I used a snowballing technique to identify other people to interview, where my first interlocutor at each community would suggest other people to talk to who were potentially relevant to the research, and the same process would be done from that point (Bryman, 2012; Flick, 2009). In this way, the eldest person would suggest other people in the community I could talk to, being aware that my interest was in the research carried out by the University. The result was that the sample of interviewees was made up mainly of knowledge holders, healers, forest guides or people that knew the University project at some level.

Parallel to the snowballing technique, I previously identified key people that I wanted to talk to, mainly ARQMO coordinators, as I wanted to understand the decision-making process of the communities in addition to evaluating their knowledge of the project, considering they signed the benefit-sharing contract. Access to these interlocutors was negotiated throughout my time in the field.

All interviews happened in a semi-structured format, organized in topics relevant to my research, although I was flexible in allowing a certain exploration of parallel topics during the interviews, such as the situation with the logging company that was unfolding at the time, but was not the focus of my interview (this will be further explored in Chapter 7). The topics that were part of the interview were: (a) information about their livelihoods, (b) the decision-making process both locally and at the ARQMO level, (c) their relationship with the associations of their territory, (d) knowledge about the ABS project, (e) their understanding about the value of traditional knowledge for this project, (f) their expectation of the result of this project, (g) whether they knew the benefit-sharing agreement and if not, how they believed it should happen (according to their perception of fairness), (h) challenges of their territory.

Audio recordings were made of all interviews with interviewee consent. There were a total of 24 interviews during this first field trip (See annex 1 for the list of interviews).

(iv) Participant Observation and Field Diary

In order to complement the data collected during the interviews I also made use of participant observation during the field trip. This is understood by anthropologists and social scientists as "a method in which a researcher takes part in the daily activities, rituals, interactions, and events of a group of people as one of the means of learning the explicit and tacit aspects of their life routines and their culture" (DeWalt & DeWalt, 2011, p. 1). In this research, participant observation is used specifically as another method to collect data and to cross reference some of the information collected in some interviews.

Mainly, participant observation was an important tool for gathering more information on the livelihoods of the communities, their cultural perceptions (this was more evident in the 3rd field trip described below), it was useful for improving trust as participating in daily activities contributed to my insertion in the community, and it was important as a way to clarifying or double checking information that appeared in the semi-structured interviews. An important part of this method is to know how to listen and to have the sensibility to know when and if one should ask questions (Valladares, 2007). The experience in the field showed that a simple conversation

during an everyday interaction provided important data for this research. Specifically during the third trip this was particularly evident when gathering information on their belief system and their historical account of their arrival in the territory.

All observations were noted in a field diary on a daily basis. These notes were then later analysed and served as complimentary data for the study.

(v) Second Visit to the Quilombolas

In May 2013 I returned to the city of Oriximiná to talk to the new coordination of ARQMO, who were elected the previous year and whom I did not meet during my previous visit. The semi-structured interview was designed to get their impressions about the ABS project on their territory and what were the current challenges they were facing as an association and also as a territory as a whole.

On this occasion I also had the opportunity to spend some time at the ARQMO headquarters where I looked at some of their publications and notes and had the chance to informally talk to some quilombola community members that would stop by at the association for different reasons.

I also visited some community members who have a house in the city and happened to be in the city during this period. These were opportunities to get an update on how they were seeing the ABS project and their relationship with the University.

(vi) Third Visit to the Quilombolas

The third field trip to the quilombola communities took place in September 2016. The main objective in returning to the communities was to explore a topic that I had not fully explored previously, but that had grown in importance throughout my research on the subject: how the relationship that the quilombolas build around their territory and their culture can have an influence on an ABS project.

The process for entering the community was through the ARQMO, as I already had contact with them and they knew my research from previous visits. After I explained my need to visit the communities the Association referred me to the coordinators of the Erepecuru and Trombetas Land Associations. It was arranged that one of the coordinators from the Erepecuru Land Association would be my boat pilot during the whole trip and the coordinator of the Trombetas Land Association would

talk to the communities of the Trombetas territory to tell them I was going to visit them during that period, as he could not accompany me at the time. As such, I would have representation from both territories.

The plan for this trip was to visit the seven communities I had visited during my first trip and that are the focus of the ABS project. However, I was only able to visit six as our boat was caught in a heavy storm on the way to the seventh community (Bacabal), almost causing a serious accident. The boat pilot recommended not going further up the river as there would be more storms, the river section was too open and winds were strong, and he was not very familiar navigating this particular part of the river (the boat pilot was from the Erepecuru territory and we were in Trombetas territory). Despite this setback, this episode did not influence the results of the data collection, as I was able to talk to the other communities I had planned to.

At the end of my third field trip, I had done thirteen semi-structured interviews and gathered valuable information through informal conversations. The interviewees were mainly leaders and knowledge holders of the communities, most of them identified by the local leadership accompanying me on the trip

The interviews were organized around four big themes: territorial management and control, natural resources management, the relationship between their culture and territory, and the current state of the ABS project. Of the thirteen interviews, six were with the same people I had interviewed in 2012 during my first field trip, which allowed me to reconnect with some of the discussions I had had with them previously.

The semi-structured interviews provided the bulk of the data collected during the visit, however, due to the specific circumstances that I encountered during this trip, some of the data was gathered from informal conversations with community members. Upon arrival at the headquarters of ARQMO I realized there was tension relating to the logging company that has been exploiting timber from their territory since 2012 (more details in Chapters 5, 6 and 7). During the meeting with ARQMO and the Erepecuru Land Association to discuss details of my visit, I was asked if my interviews would be about the logging. I clarified saying that my questions would be about their relationship with their territory, their history and culture and of course, their traditional knowledge on plants as this was the focus of the ABS contract they had signed with the Federal University of Rio de Janeiro. I felt that there was an immediate relief from the part of the coordinators. I later learned during this field trip that the logging project was a failure and was causing a lot of conflict and mistrust

among communities. Despite the logging company situation not being my focus, it appeared in most interviews and informal conversations as it was a central concern at the time, in addition to being an inevitable topic when talking about territory management.

In retrospect, I understood that they would not have welcomed me in the territory if my focus had been strictly about logging. So, in a way, this situation set a more cautious scenario for my visit. Unlike during the first field trip, where I slept in the houses of community members, this time the arrangement was that I stayed in the boat accompanied by the coordinator of the Erepecuru territory association. This coordinator is a strong leader of the region, part of a family of leaders, and has been a supporter of logging activity in the territory. On one hand it was very interesting to be able to have long informal conversations with this important leader, who has a long history of fighting for the rights of this quilombola community, but on the other, I was very aware that he was always trying to convey a very specific message about their territory and the current situation of the region, diminishing the importance of certain local conflicts and political tensions. The fact that this was not my first visit and that I have followed the local situation closely allowed me to discern his political bias. In order to get a more independent view on certain topics I spoke to other people to cross-reference information.

I was also assigned another leader whose role was to introduce me to people I was going to be interviewing, however, most of the time he sat with me through parts of the interviews. This was a very different situation than in my first field trip, when I was left on my own in the community to wander around and talk to different people.

The leader that accompanied me in the interviews works very closely with the Federal University of Rio de Janeiro on the ABS project and we had met during my first trip, when he was also one of my interviewees, so I was very familiar with his political position, knowing that he was strongly critical of the logging company. Thus I knew that his presence was not arranged in order to control my interviews as politically the two leaders did not see eye to eye. My assessment of his presence was that he had a personal interest in the topic I was discussing in the interviews as he helped collect many samples for the bioprospection project and he was very interested in the history of the quilombolas. Despite this, I had to consider that his presence during the interviews could constrain some of my interlocutors.

As such, I had to use different techniques to ensure that my engagement with my interlocutors had the least interference possible. First, I engaged in more informal conversations with community members, which happened during more social moments and therefore in a much more relaxed environment. Because my focus was a lot on their culture and history, these conversations were easier to have informally and could happen in a less structured format than an interview. On these occasions I was able to cross-reference the data I had gathered through secondary literature, specifically the anthropological work done with these communities where their traditions, cosmology and views of the world were studied (Félix, 2009, 2011; Galvão, 1955; J. F. Sauma, 2009, 2013, 2014; Teixeira, 2006).

The second strategy used was to be aware about sensitive topics in the interviews during moments where the local leader was present, in order to avoid creating a situation where my interlocutors would have to use words carefully. The topics discussed in the interview (territory, culture and knowledge) are not contentious issues but I had to be careful when the conversation turned to territory control and inevitably the logging situation.

As with the first trip, the use of a field diary was essential to record my impressions and thoughts, and particularly during this trip notes became more important as informal interaction turned out to be more relevant.

(vii) Semi-Structured Interviews and Informal Conversations with Non-Community Actors

There were three actors that were important to engage with in order to complement the information I gathered in the communities.

The first interview was with the main University researcher, who leads the ABS project in the region. There were different levels of engagement with him. The first was during the trip to the quilombo in 2012, where I had the chance to talk to him regarding his views about the territory, the challenges he faced in getting authorization from the government for access and what his plans were for the future. My impressions were written down in the field diary for later evaluation.

After my first analysis of the interviews undertaken with the communities I interviewed the University researcher to clarify some of the issues raised by the communities and to cross-reference some of the information I had taken down during

our trip to the community. We have since sporadically exchanged emails or talked over Skype where he has updated me on the current state of his research.

In order to clarify some of the government's procedures, I spoke to the Genetic Heritage Department, which is responsible for the Executive Secretariat of the Genetic Heritage Management Council (CGEN). These were not recorded interviews but informal talks aimed at understanding the oversight role of CGEN, especially in relation to benefit-sharing contracts.

The third external contact was with the non-governmental organization 'Comissão Pró-Indío SP' (CPI). The CPI has been a partner of the quilombolas for more than two decades, helping with the land struggle from the very beginning. They have different projects in the quilombola territory and are well-respected among the communities. Their views about the territory, the current challenges the communities face and their vision of the culture and customary norms of the quilombolas were essential to giving me a full picture of the Oriximiná quilombo. A semi-structured interview was carried out with the executive coordinator of CPI in 2014 and in 2015.

(viii) Data Analysis

All interviews were transcribed in order to facilitate the identification of the different themes that appeared.

Specifically for the data analysis of the community interviews, a set of themes related to the perception of the community was identified. For each of these themes, a set of questions were highlighted in order to subtract more details from the themes and in this way help to construct the narrative told by each interviewee (see annex 2).

In each interview, the themes were then identified and grouped together in order to visualize how these topics were told and understood by the interviewees.

After this process was done, the empirical chapters were written using the narratives told by the community, which were guided by the different themes identified previously.

Parallel to the specific analysis of the interviews, there was an analysis of the ABS scenario according to the four step guideline described in the previous chapter. This guideline was used to understand the different sets of rights identified in the ABS agreement of Oriximiná.

4.4-The Bailique Community Protocol Case Study

4.4.1-Why a Second Case Study? Why The Bailique Community Protocol Project?

An essential aspect to mention is that this is not a comparative case study of two examples of ABS in Brazil as there has been no access of genetic resource or traditional knowledge in the Bailique territory. However, the Bailique Community Protocol Project addresses many of the challenges found in the Oriximiná case study that can influence the fairness and equity of an ABS contract. Although there has been no access in Bailique, the Community Protocol Project prepared the communities to have a more equal dialogue with any external actor and in this way it discussed issues that can be relevant for achieving fair and equitable benefit-sharing, such as participation, information, power balance, territory control and local empowerment. Hence, the Bailique Community Protocol is discussed in this thesis as an instrument of community empowerment and territorial control that can be used to prepare communities for a more equal and equitable ABS negotiation and contract. The Bailique Community Protocol answers some of the questions raised during the analysis of the Oriximiná case study.

4.4.2. Getting Involved With the Community Protocol Project

The manner in which I got involved with the Community Protocol project is key to understanding the type of data collected.

After arriving from my first field trip to the Oriximiná quilombo, I went to talk with Mr. Gomes, the then president of the 'Grupo de Trabalho Amazônico' (GTA), a Brazilian NGO that is formed of a network of social organizations from all states of the Amazon. I was arriving from a trip in which I had an expectation of finding a fair and equitable ABS and instead I was returning with a strong feeling that what I had seen was far from being equitable or fair. As will be further explained in Chapter 5, the information gathered in the field revealed several shortcomings of the ABS agreement that were not identified in the literature review (Kishi, 2009; Santilli, 2009) on this quilombo.

My main objective when meeting with the GTA was to ask for help in identifying a case study in Brazil that could truly reflect fairness and equity in the

ABS process. However, during the conversation with Mr Gomes it became clear that indigenous and traditional communities in Brazil were not empowered to have an equal dialogue with any external actor and there were no good examples of ABS in the country, at least not one that would truly reflect fairness and equity.

At that time the GTA was organizing a series of meetings with experts from different areas to discuss exactly what would be the best path to empower Amazonian communities facing negotiation with an external actor. Due to my research on ABS I was invited to participate in these meetings. After six months of informal conversations, meetings and research, the idea of developing 'Community Protocols' appeared to be one way of addressing the many challenges that indigenous and traditional communities were facing such as exclusion from the decision-making process, unequal power relations, no control over territory and resources and loss of culture and traditions. I was then invited by the GTA to be part of their team that was going to create and implement the first Community Protocol in Brazil.

My involvement with the concept of Community Protocol therefore comes from the very beginning of the process and I was directly involved in the development of the concept itself. This is important to state because as much as I have aimed to maintain an unbiased analysis of the Bailique Community Protocol, I have to take into account that I was personally involved in the development and implementation of the protocol in this community.

Because of that, in this specific case study, elements of the concept of 'practitioner ethnography' will be used, considering the characteristics of the fieldwork. One area where practitioner ethnography is common is in research related to illness/health where the practitioner can be a doctor, health educator, health manager (Barton, 2008) and also in education, as there is a movement where a teacher is seen as the researcher that investigates his/her own practice (Hammersley, 1992). The idea of 'practitioner ethnography' differs from the traditional ethnographer as it is very much concerned with the practice of the research as the researcher also works in the field. The researcher is a full participant as he/she has lived the experience that is being investigated. Unlike the traditional ethnographer who is a total outsider, the practitioner is directly involved with the research process and the theme being investigated (Barton, 2008; Hammersley, 1992).

The relevance of the result of the research is a common concern for practitioner ethnography. That is not to say that traditional ethnography is not

concerned about how research will have an impact on society, but the attention of practitioner ethnography is more focused on the direct relevance of the subject being investigated (Barton, 2008).

Analysis of this specific case study has the potential to directly influence the Bailique communities as the Bailique Community Protocol is an ongoing project and other Amazonian communities are starting to replicate the methodology developed there.

4.4.3-Entering the Community

Considering the protocol is a community instrument, the first step is to get free, prior and informed consent of the community regarding whether they want to develop the protocol in their territory.

The first attempt to develop a community protocol was in another community in the state of Amapá, which had requested the support of the GTA network to develop projects in their territory. We organized a two-day workshop in order to explain what a community protocol was and what it would mean to develop a project like this in their territory. After the workshop, the leadership of the community agreed to meet the next day to vote on a decision, but instead left in the very early hours without giving any explanation to community members who were expecting the vote to happen. It is our understanding of this situation that the leadership, who were knowingly involved with the illegal timber trade, realized that a community protocol in their territory would be a threat to their current business and power status. Without a vote being held we were not able to implement the community protocol, despite the community asking us to do so.

However, at the workshop there were two members of the Bailique community who were invited as guests as they were also partners of GTA. One was a representative of the Bailique Fishing Association and the other a representative of the Bailique Community Council. When they realized what had happened they invited us to hold the workshop in Bailique as they believed that the Bailique communities were ready to develop this type of project in their territory.

The Bailique archipelago is located at the mouth of Amazon river, at approximately 180 km from the city of Macapá and reached only by a 12 hour boat

trip. There are approximately 51 communities spread across seven islands whose main income comes from fishing and the extraction of forest products.

In May 2013 we held a consultation workshop on the Bailique territory (more details of the process in Chapter 8) and all leaders gave free, prior and informed consent for the GTA network to develop the Community Protocol Project on their territory.

4.4.4- Data Collection and Analysis

The whole process of constructing the Bailique Community Protocol took 20 months (from May 2013 to December 2014) and a total of 15 workshops. I was present during all of these events as part of my responsibility in the project was to develop the methodology for constructing a community protocol, built from the experience with the Bailique communities.

Considering this, all data used in this research is a direct account of what happened during these months of constructing their Protocol as well as the material produced during this period, taking into consideration how I experienced the process of constructing a protocol. An aspect of practitioner ethnography is the role of reflexivity, where the researcher must take into account that he/she has an inside view of the research and how that might have an influence on the research itself (Barton, 2008; Pellatt, 2003). It is essential that researchers consider how their close and intimate relationship with the topic studied might have an effect on the outcome of the research (Manias & Street, 2001).

In order to balance out the fact that I was directly involved with the process itself, I have carried out interviews with some key actors. The interviews had the aim of ensuring that I also had contact with the views of other actors and in this way did not rely solely on my personal experience with the project. The people interviewed were: the project coordinator, the president of the Bailique Traditional Communities Association (ACTB) and a researcher from outside the community that was involved in the process of the construction of the protocol. The name of this person is kept anonymous in order not to compromise this person's role in the project.

Analysis of this data was done by using the set of rights identified as relevant for an ABS (right to be consulted, right to information, right to participation, right to land security and right to culture) as a basis for the discussion of the protocol. The

objective was to verify whether the methodology proposed for the construction of community protocols could contribute to the fulfilment of these rights and in this way enhance the chance of an ABS that is fair and just.

In order to contextualize the rights that will be analyzed, the next chapter will describe the quilombola community of Oriximiná, its territory, the different levels of pressure they suffer and the process of access to their biodiversity and traditional knowledge. This description will be central to setting the stage for analyzing how the negotiation between the community and the University occurred and how the fulfillment (or non-fulfillment) of rights played a role in the fairness and equity of the benefit-sharing contract. In Chapter 6 and 7 a variety of rights will be looked at according to the guidelines proposed.

Indigenous and traditional communities have basic rights such as recognition of their territory and recognition of their customary norms and traditional knowledge (representative institutions, decision making process, customary law) (Bystrom, Einarsson, & Nycander, 1999). Together with the recognition of the need for their prior informed consent before access and their right to participate and to appropriate information in the process, these will be the set of rights looked at in the following chapters.

5- The Quilombola Communities of Oriximiná

In Brazil, the quilombolas are understood to be a self-defined ethnic group that are descendants of black slaves who maintain a close relationship and dependence on the territory they inhabit. There are quilombola communities in 24 federal states of the country, with the exception of the states of Acre, Roraima and the Federal District (Secretaria de Políticas de Promoção de Igualdade Racial, 2013). The 1988 Brazilian Constitution guarantees several rights of these communities, such as their right to land security and their right to preserve their own culture (Presidência da República, Secretaria Especial de Políticas de Promoção da Igualdade Racial, & Subsecretaria de Políticas para Comunidades Tradicionais, nd).

This research is concerned with the remnants of the Oriximiná quilombo which is formed of 37 communities and whose populations are the descendants of black slaves who inhabited the area in an attempt to free themselves from captivity and

slavery. These communities are from the Amazonian State of Pará, living in an area of high biodiversity and where their livelihoods are totally dependent on the natural resources of the region.

In 2007, the Federal University of Rio de Janeiro gained authorization from the Brazilian government to access genetic resources and traditional knowledge of these communities for scientific research on medicinal plants. Since then, the University has had access to several different plants and their associated traditional knowledge and as a result the communities entered into a benefit-sharing contract with the University, despite not yet having a commercial product as a result of this bioprospection.

This case study will serve as a guidance to discuss the challenges of acquiring fair and equitable benefit-sharing. Although this case followed all the legal steps required by Provisional Measure 2186 for access, this research identified several pitfalls in the process that can be seen as threats to the possibility of having fairness and equity in the benefit-sharing contract. Before describing how access occurred in the Oriximiná quilombo, it is necessary to look at their history, challenges and threats as these are elements that influence the relationship between the quilombolas and all external actors they enter into negotiation with, such as the University.

This chapter begins by discussing what it means to be a quilombola and how that understanding evolved from a historical account to be a process of self - identification of a specific group. The second section then introduces the history of the Oriximiná quilombo, identifying how black slaves fled to the forests seeking their freedom and building what we now know to be the quilombola communities of the region. The third section turns its attention to the many challenges of their territory, with the arrival of bauxite mining in the 70s followed by the creation of a Biological Reserve and a National Forest, two conservation units that limited the access of these communities to territories that were used for fishing, hunting and extraction of Brazil nuts, creating tension and conflicts locally. The next section entitled “Contemporary Vulnerabilities of the Quilombola Territory” follows from this, discussing the more recent threats to the quilombola territory such as mining expansion, plans for the construction of a hydroelectric dam in the region and the start of a logging enterprise in their territory. One of the central vulnerabilities of this quilombola community is their fight to guarantee their right to land, which is secured in the Constitution and yet there are still communities that do not own the title to their territory. The fifth section

looks at the challenges faced by the communities in their struggle to secure their right to own their traditional territory as well as access the natural resources that are the basis of their physical and spiritual survival. The last part of this chapter will then describe in detail how the Federal University of Rio de Janeiro entered into a negotiation with the communities to access genetic resources and traditional knowledge and some of the results of this access.

5.1- Defining the 'Quilombo' Throughout History

The historical definition of *quilombo* that was constructed in the 1740s during Brazil's colonial period still shapes to an extent how society understands this term. This definition described quilombos as dwellings created by escaped slaves, located in isolated areas, which lacked a household structure and whose population was not inserted in the market (A. W. B. d. Almeida, 2002). These elements are still very much present in many discussions about quilombos and have shaped a negative view that does not necessarily correspond to the reality and history of many of these populations. For instance, the description of the quilombos of Oriximiná made by Otille Coudreau in 1900 describes not only the structure of houses and agriculture patches on their territory but also the existence of commercial houses and the trade of Brazil nuts, demonstrating the ability and interest of these communities in establishing market relations (Acevedo & Castro, 1998a). Also, in the State of Maranhão, there are quilombola communities that were formed on territories previously owned by cotton farmers who abandoned their land because of crises in the cotton trade. On other occasions, quilombos were formed when slaves gained land in exchange for warrior services (Paixão, 2011). Both examples show that geographical isolation and escape are not necessarily premises for the establishment of a quilombo. There are therefore many different situations in which a quilombo might be formed and maintained and which do not follow the official description of that time.

It is important, therefore, to deconstruct this definition from the historical and colonial experience, allowing for a more contemporary understanding of the quilombo, one that can reflect the reality of this population, breaking with the prejudiced view that has been constructed around this group. The concept of ethnicity can be one tool for such a deconstruction as it can be used to help define the boundaries of a group, in this case the quilombolas, where they can be distinguished

from other sectors of society. Barth (1969) clarifies that these boundaries cannot be solely defined by culture, although culture is present in this relationship: "It is important to recognize that although ethnic categories take cultural differences into account, we can assume no simple one-to-one relationship between ethnic units and cultural similarities and differences" (Barth, 1969, p. 14). Also geographical isolation and lack of social relations are not what define an ethnic group. Barth (1969) explains that the features that are relevant are those that the actors themselves regard as important, bringing forward the idea of auto identification and not a scenario where a group is identified by outsiders or defined by a category chosen by non-group members (Barth, 1969).

Through this understanding of ethnicity, we can leave behind the rigid concept of quilombo that derives from a purely historical perspective. Rather than searching for an archaeological site in order to confirm that a community can be considered a remnant of a quilombo, it is now understood that to be a remnant is based on self-identification. According to decree 4887 of 2003, the remnants of quilombos are a self-defined ethnic group that have their own history, specific territorial relations and a presumption of black ancestry that is related to resistance to the historical oppression suffered by them (Presidência da República, 2003). The idea of self-identification present in this decree reaffirmed what was previously recognized by the Brazilian government when it ratified the ILO Convention 169 in June 2002. In article 1, this international convention states that 'Self-identification as indigenous or tribal shall be regarded as a fundamental criterion for determining the groups to which the provisions of this Convention apply' (A. W. B. d. Almeida, 2004; International Labour Organization, 1989). Thus the process of identifying a quilombola community is essentially based on how this community perceives itself.

The definition established by decree 4887 also makes an important reference to the relationship of this group with their territory, which is regulated by the 1988 Brazilian Constitution in its Temporary Constitutional Provisional Act number 68 that recognizes that the remnant of quilombos have the right to property of their occupied land and the Brazilian State has the responsibility to issue these land titles (Presidência da República, 1988). Article 68 puts the black population in the legal system, considering that after the abolition of slavery in 1888 there was no reference to this population in the Brazilian judicial system, let alone a discussion about their relationship with the land they occupy (A. W. B. d. Almeida, 2002; Leite, 2008).

Hence, this is an extremely important landmark in the recognition of the rights of the black population and also an acknowledgement of the role of quilombos as a symbol of resistance and freedom in the country.

This self-identification of the quilombola identity is followed by their struggle to gain recognition of their land, which has a very particular legal status: their land is collective, undivided, inalienable (cannot be sold/transferred) and imprescriptible (does not lose validity), going against the historical division of land into private property that occurred in the country (Lima, 2012). These communities agreed to adhere to this land title system thus reinforcing their collective identity rooted in their history but more importantly reflecting their relationship to their 'traditionally occupied land', which as exposed by Almeida (2008) reflects a type of occupation that is characterized by the common use of natural resources and activities such as extractivism, fishing and agriculture (A. W. B. d. Almeida, 2008).

Through this scenario of self-identification, ethnicity can be seen as a form of language and political organization, where actors can claim their rights (Carneiro da Cunha, 2009a). As such, there are many contemporary legal understandings of the quilombo that focus on their right to land but with a specific mode of natural resources management; quilombo as entitling these communities to public policies that will guarantee their rights as citizens and, just as importantly, quilombos as a manifestation of a specific culture that must be preserved (Leite, 2008). These many versions of the term quilombo have allowed for a variety of experiences to be considered and for a deeper understanding of what defines a remnant of a quilombo, where their relationship with their territory, their collective history and their culture is essential for their survival as a distinct social group. It is precisely this relationship which is at the heart of the process of securing land for these communities.

Land-titling is essential to guaranteeing security as it defines the territorial limits of the land, helps to settle disputes and enables the inclusion of this population in most social programmes as land ownership is often an eligibility criteria in these public policies. In addition, quilombola communities depend on their land for the preservation of their cultural and spiritual characteristics as well as for the maintenance of social, economic and environmental sustainability (Andrade, 2011; INCRA, 2012).

According to data from the National Institution of Colonization and Agrarian Reform (INCRA), which is the main Brazilian government body responsible for

issuing land titles to quilombolas[16], by February 2016 there were 210 titled quilombola lands benefiting 151 territories, 241 communities and 16,009 quilombola families (Instituto Nacional de Colonização e Reforma Agrária- INCRA, 2016). This process of issuing land titles to quilombola communities has been extremely slow, which becomes apparent when looking at the total number of quilombola families in the country. Although this number is uncertain, a report by the federal program 'Brazil Quilombola' estimated that in 2013, there were 214 thousand quilombola families in Brazil representing approximately 1.17 million quilombola people in the country. This report also stated that 74,73% of quilombola families live in extreme poverty, 79.78% are beneficiaries of the cash transfer program 'Bolsa Família', 24.81% cannot read and 82.2% develop extractivist activities, agriculture and artisanal fishing on their territory (Secretaria de Políticas de Promoção de Igualdade Racial, 2013).

5.2- The Quilombolas of Oriximiná

The remnants of the quilombo of Oriximiná are located in the extreme north of the State of Pará, Brazil, in the municipality of Oriximiná. This area is known as the *Calha Norte*, which is comprised of 28 million hectares, with 334 thousand inhabitants distributed in 9 municipalities and sharing borders with the Brazilian States of Amazonas (to the west) and Amapá (to the east) and to the north with Guiana and Suriname. This region is home to the largest mosaic of protected areas in the world, including 12.8 million hectares of state conservation units, 1.3 million hectares of federal state units, 7.2 million hectares of indigenous land and 0.4 million of quilombola land– (Bandeira et al., 2011).

The quilombola communities of Oriximiná are comprised of 37 communities distributed in eight quilombola territories, of which five have had their land titled, one is partially titled and two are yet to be titled (Table 1 and Map 1) (Comissão Pró-Indio de São Paulo, 2016e). Due to the collective nature of their land, the title is not given to a specific individual or community, but to the so-called 'land association' that was created specifically with the objective of receiving land titles. For every territory that

[16] INCRA is responsible for issuing titles for land found in public federal areas or land that is in private areas. The Federal Properties Management Office (SPU) is responsible for issuing titles for land that falls within their jurisdiction, and each state is responsible for issuing titles for land that is within state and municipal jurisdiction (INCRA, n.d.).

has been titled there is one land association.

The quilombolas have been directly involved in the fight for land rights for many decades, but it was in 1989 that they created the Association for the Remnants of the Quilombola Communities of Oriximiná (ARQMO), which had as its main objective to help communities to get their collective land title. In 1995, the Boa Vista Community from the Oriximiná quilombo was the first quilombola community to acquire a land title in Brazil, setting the path for other communities to demand their right to collective land (Andrade, 2015).

Table 5: Quilombola Territory in Oriximiná

Quilombola territory	**Information on land title process**
Boa Vista	Title by INCRA in 1995. Extension 1,123.0341 hectares. Community: Boa Vista
Água Fria	Title by INCRA in 1996. Extension: 557.1355 hectares Community: Água Fria
Trombetas	Titled by INCRA and by ITERPA in 1997. Extension 80,887.0941 hectares. Communities: Mussurá, Bacabal, Arancuan de Cima, Arancuan do Meio, Arancuan de Baixo, Serrinha, Terra Preta II e Jarauacá.
Erepecuru	Titled by INCRA in 1998 and by ITERPA in 2000. Extension 218,044.2577 hectares Communities: Poço Fundo, Acapú, Jarauacá, Varre Vento Erepecurú, Boa Vista Cuminá, Monte dos Oliveiras, Santa Rita, Jauari, Araçá, Espírito Santo, São Joaquim e Pancada.
Alto Trombetas	Partially titled by ITERPA in 2003. Extension 79.095,5912 hectares. Communities: Abuí, Paraná do Abuí, Tapagem, Sagrado Coração de Jesus e Mãe Cué.
Alto Trombetas 2	Not yet titled (in process of regularization).

	Communities: Juquirizinho, Juquiri Grande, Jamari, Curuçá, Palhal, Último Quilombo do Erepecú, Nova Esperança e Moura.
Ariramba	Not yet titled (in process of regularization). Community: Nova Jerusalém
Cachoeira Porteira	Titled in March 2018 by the Para State Government Extension: 225.289,5222 hectares Community: Vila Nova de Cachoeira Porteira

Source: (Comissão Pró-Indio de São Paulo)

Map 2: Quilombola Land Title

Key- Orange: Titled territories

Green: Untitled territories

Source: Comissão Pró Indio- SP

The remnants of the quilombo of Oriximiná are characterized by their long history of land struggle, by their intimate and respectful relationship with the environment, and by their strong cultural and spiritual collective identity. Their history goes back to colonial times, when black slaves were brought to the Lower Amazon region throughout the 17th and 18th centuries to work on the plantations,

mainly cacao, that were growing in importance in that area. The black slave trade increased when in 1755 a law was passed that declared indigenous people free, whereas previously they were also enslaved (Acevedo, Castro, 1998). In this way, black slaves became the main working force in agriculture and in the homes of the colonial urban Amazon.

In their search for freedom from forced labour, black slaves escaped to the forest creating the areas called quilombos, which were the locations where they tried to start a new free life. It was during the 19th century that escapes became more common in the State of Pará culminating in the 'cabanagem revolt' that started in the city of Belém in 1835 until 1840, and spread to other regions resulting in the death of more than 30 thousand people (Ricci, 2006). This was a popular revolt against the social and economic status quo that had not changed since Brazilian independence from Portugal in 1822, thus constituting a class revolution against the white Portuguese elite. There was huge adherence to this revolt from indigenous and black people (freed and enslaved) which had a direct effect on the increase of escapes (Acevedo & Castro, 1998a; Salles, 1971).

At first the destination for escaped slaves from the Lower Amazon was upstream on the rivers Cuminá, Erepecuru and Trombetas using the waterfalls, rough waters and the forest to their advantage as natural barriers (Funes, 2015). The *quilombo* of Trombetas, for instance, had at times 2000 people living there, often being compared to the famous *quilombo* of Palmares[17]. There are several historical accounts of attempts by the local government to find these quilombos and recapture the slaves, however they often failed and when they rarely succeeded the *quilombos* were rebuilt soon after (Salles, 1971).

This is well illustrated in the description of an expedition led by captain João Maximiano de Souza in 1855, who organised an attack on the quilombo *Maravilha*, situated on the river Trombetas. As described in his reports, there were 190 soldiers involved, a number that decreased considerably during the trip (about a third of his troops succumbed to illness) and desertion. In order to reach the quilombo they had to cross approximately 15 waterfalls for which a special type of boat was needed and an

[17] The quilombo of Palmares was constructed around 1605 in the state of Alagoas, Brazil, and is considered a symbol of resistance of black people in the country. The quilombo survived many attempts at its destruction, lasting until 1694 when it was finally destroyed. The most famous quilombo leader was Zumbi, who was killed soon after the quilombo's destruction and is still seen as an important symbolic figure in the black struggle against racism (Funari & Carvalho, 2005).

experienced pilot and guide which had to be a black slave or indigenous person who could navigate the rough waters. The expedition did manage to reach the Quilombo *Maravilha*, however, the black slaves, having been warned about the approach of the captain, fled to another locality where they rebuilt the quilombo, taking with them whatever was possible and burning whatever they could not carry. The expedition failed to capture any black slaves (Funes, 2000).

The quilombos were seen as a threat to the stability and economy of the villages, and their inhabitants, the quilombolas, were seen as bandits and outlaws. Nevertheless, this population was not isolated as is commonly supposed. On the contrary, they maintained a close commercial relationship with nearby cities. The quilombolas traded Brazil nuts, tobacco and manioc with the city of Óbidos and Oriximiná through river traders who would go up to the quilombo to buy products, but there are also accounts of quilombolas going to the cities at night to sell their goods. Their trade became important to the local economy where Brazil nuts and tobacco coming from the quilombos were known to be of better quality. As a result, although destroying the quilombos was a step towards returning slaves to their 'masters' and therefore strengthening the plantation economy, it was also against the strong interests of local traders who had in the quilombos an important source of goods. In the lower Amazon it became clear that local traders had strong political power as the quilombos only increased in importance for the local economy, one reason which contributed to the end of punitive expeditions to the quilombo after 1860 (Acevedo & Castro, 1998a; Funes, 2000).

In geographical isolation, life in the quilombos was not easy and with increasing trade with the cities and the abolition of slavery in 1888 the quilombolas started to move down the rivers where waters were calmer with access to urban areas much easier (Andrade, 1995). As such, during the 19th century new quilombos were formed downstream from the waterfalls, such as Abuí, Moura, Tapagem which are some of the current remnants of quilombos of Oriximiná (Acevedo & Castro, 1998a; Funes, 2015).

During the late 19th and early 20th century there was a movement of land appropriation throughout the region by merchants from the cities of Óbidos and Oriximiná, who began monopolizing the local Brazil nut and cacao trade. This process of land privatization was legalized in the city notaries, which gave land titles to these traders. Inevitably, this affected the ability of the quilombola communities in

the region to access natural resources from their land (Acevedo & Castro, 1998a). The quilombola communities had a system of common or collective use of resources, where each family would have their agriculture patch near their house and the extraction of forest products, such as nuts, were done freely in their territory. The idea of fences and private property was not part of their cultural and social system.

The appropriation of these lands developed into a relationship of patronage and dependency, where one trader monopolized the extraction of Brazil nuts from one specific territory. Whereas previously the collection of nuts was free to the quilombola communities, they now had to sell all their nuts to one specific trader, which was often for less than market prices. Also, part of this dependency was created by their obligation to use the trader's commerce to buy goods at very expensive prices, thus creating a system of ongoing debt. This also generated a paternalistic relationship between merchants and quilombolas, where the first would be a 'godfather figure', creating a dubious relationship of trust, economic domination and power, in a form of white supremacy (Acevedo & Castro, 1998a). This undue recognition of land ownership given to traders and local elites, which was followed by economic dependency and exploitation is seen by many quilombolas of the region as a new form of 20th century slavery (L. G. d. Carvalho, 2015).

It was only in the 60s that this patronage relationship started to change due to the economic crisis of the extractivist activity followed by new actors entering the territory. With the facility to buy motorboats, small traders started to go up the river to buy Brazil nuts from the quilombolas. Despite controls imposed by the big traders and 'owners' of the land, many quilombolas gave preference to small traders, progressively breaking the patronage relationship. Another element that contributed to the weakening of that relationship was the growing interest of mining in the region, where big mining companies started to buy lands from big traders in order to get installed in the region.

5.3- Pressure on Quilombola Territories

Like many traditional communities of the Amazon forest, the remnants of the quilombo of Oriximiná currently face many challenges in protecting their territory and maintaining their cultural system. They have to deal with projects that according to the common discourse would bring 'development and prosperity' to the country

and the local community, and yet their experience has been far from this.

In 1979, the mining company 'Mineração Rio do Norte' (MRN), began operations on the river Trombetas next to the quilombola community of Boa Vista, creating the city Porto do Trombetas that was home to the skilled mining workers (Acevedo, Castro, 1998). The MRN works with extraction, processing and sale of bauxite ore and in 2015 was the leading company in Brazil for bauxite with a 47.38% share of national production. Brazil has the world's third largest bauxite reserves, which is located in the Amazon region, and the country produced 50 million tonnes of ore in 2015, being the 6th largest producer of bauxite in the world (Departamento Nacional de Produção Mineral, 2016 ; Mineração Rio do Norte, 2017).

The mining brought social disruption and environmental destruction to the region, directly affecting the local quilombola population. Large boats used to transport the bauxite had a negative impact on the river ecosystem, affecting the fish population. There were cases of severe polluting of areas, such as Lake Batata, which was traditionally used for fishing, but was used by the MRN as a waste basin turning out approximately 24 million tonnes of bauxite residues, creating a huge impact on local fauna and flora (Acevedo & Castro, 1998a; Farias, 2010).

One of the more direct results in terms of social disruption was the creation of boundaries in a territory that is characterized by the free movement of people and collective use of resources. Some areas previously used by the communities for activities related to the maintenance of their livelihood, such as fishing and hunting, became 'private areas' of the MRN. At the same time, communities who were used to moving around the forest and accessing areas of common use were faced with the city of Porto do Trombetas, which had gates separating insiders and the outsider black community (Acevedo & Castro, 1998a).

Inevitably, part of the younger male population of the nearby community, Boa Vista, started to work on the mining sites whereas women got jobs as maids and cleaners in the houses of Porto do Trombetas. This created major social disruption as there was a part of the community that no longer had time for hunting, fishing and agricultural activities, which not only had an impact on their livelihoods but also on their cultural reproduction. There was further social disruption at local level relating to the division between people who could access basic services of the newly built city and those who could not. According to the findings of Acevedo and Castro (1998), part of the agreement with the MRN was that the local community would have access

to basic services in Porto dos Trombetas, such as schools, hospitals and shops. For that to happen, the company developed a database with people that were entitled to the services and to enter the company's premises. The process of registration, however, took a long time to complete and many family members were not registered, as often they were away hunting or fishing when the registration was being carried out in their communities. This created internal tensions where only some children were allowed to attend school or only some people would be seen at the hospital, leaving those unregistered without any social support (Acevedo & Castro, 1998a).

Although the relationship with the company has improved over the past years, there are clearly signs of dissatisfaction among the quilombolas. For instance, access to the hospital's services was a result of quilombola protests and despite the agreement being for access in emergencies only (Kohler et al., 2011) there is a local perception that it is still not fair to limit their access to this service (R. P. Ramos, 2012).

Mining extraction was not the only challenge faced by this community. Parallel to the start of this activity in 1979 there was the creation of the Biological Reserve of Trombetas, with 385 thousand hectares, and ten years later, in 1989, the creation of the Saraca-Taquara National Forest, with 426 thousand hectares, both within the territory occupied by quilombola communities (see Map 2 below) (O'Dwyer, 2002). Both of these conservation areas were the result of pressure on the Brazilian government from the MRN and were created with no public consultation or viability studies. Although the national argument for the creation of both these areas was the necessity to preserve the forests, the Biological Reserve and the National Forest can be understood as territorial strategies of the mining company, which used these areas against the threat of immigrants, who were being attracted to the region due to the installation of the mines; against the arrival of new mining companies; and as way of creating a reserve for potential future natural resources exploitation (Wanderley, 2009).

Map 3: Federal Conservation Unit (light green area) in the quilombola territory

Source: Comissão Pró Indio- SP

The impact on the livelihoods of the quilombola communities was immense and as with the mining there was no consultation process. They were prohibited from accessing natural resources from these areas, thus preventing them from carrying out their fishing, hunting and extractivist activities in these territories, locations traditionally used by them to acquire the natural resources needed to maintain their livelihoods and wellbeing (Acevedo & Castro, 1998a; O'Dwyer, 2002). Recently, there has been an agreement where some community members can access the Reserve area during the Brazil nut season, although they are obliged to bring food from outside in order not to rely on fishing and hunting during the harvest. Despite this being positive in the sense that this gives back the right of this community to access their traditional territory, the imposition of rules in order to enter the land (i.e. no hunting) carries implications for the community's ability to maintain their traditional modes of extraction. As described by Scaramuzzi (2015) an important part of the identity of the Brazil nut collector from this quilombo is their knowledge of the area, meaning an understanding not only of the location and productivity of the trees but also knowledge about the geography of the territory, type of vegetation, and the best place for hunting and fishing (Scaramuzzi, 2015). By imposing certain restrictions,

there is a direct effect on the traditional ways they relate to their territory and to natural resources.

There were many conflicts between the remnants of the quilombo of Oriximiná and environmental institutions such as the Brazilian Institute for the Environment and Renewable Resources (IBAMA), which had the responsibility of ensuring that conservation rules were followed by everyone. These conflicts are still alive in the community's memory, especially because IBAMA agents would normally make use of violence and racial slurs. Communities had no option but to keep hunting and fishing in secret, despite fear of sanctions if they were caught, which included apprehension of fishing tools, guns, canoes (essential for survival in that region) and the animals they had hunted. Communities were transformed into outlaws that required correction and needed to change their habits which were considered unsustainable (O'Dwyer, 2002).

As an area considered to be of high biodiversity, the Biological Reserve was created as a conservation area with integral protection of fauna and flora, and as such traditional communities were not given access to its natural resources. It is relevant to point out, however, that these communities have been living in this region and using these resources prior to the creation of these conservation areas, and it is important to recognize that these highly biodiverse areas are the result of the sustainable management carried out by these communities for centuries, and are not just simply nature's work (Wanderley, 2009). It is an irony, not to say an insult, that these communities were, and still are, treated as enemies of conservation.

Both the mining installation and the creation of conservation units in the quilombola territory show neglect for the rights of these communities, demonstrating a process that did not account for the wellbeing of the quilombolas of the region. Rosa and Acevedo (1998) challenged the negotiation process between the MRN and the communities, arguing that the impact studies did not take into account the effects on the community's cultural and belief system. Indeed, there is a need to consider compensation for communities that can no longer access areas important for their physical and spiritual reproduction. Furthermore, in a broader discussion of equality and justice, it is essential to question the power imbalances that exist in a dialogue between a company and traditional communities, and what measures were taken to ensure that the practice of equity and fairness is as close to reality as possible.

5.4- Contemporary Vulnerabilities of the Quilombola Territory

There are still numerous challenges in the Oriximiná quilombola territory that pose many threats to the wellbeing of the local population. The communities are surrounded by 'development' projects, putting them in a situation where they have to choose between the promise of jobs and compensation in return for exploitation of their territory, forest and rivers; and a standing forest that has been providing for their livelihoods for more than a century. Mining, hydroelectric power and logging are present in their territory and they share an attitude of disregard for the rights of these communities to be properly consulted and participate in the decisions that affect their livelihoods.

(i) Mining

Mining activity continues to be a great challenge to the quilombolas and it is currently one of the biggest threats in that region. The non-governmental organization 'Comissão Pró Indio' stated that in March 2016 there were more than 85 mining processes on quilombola lands in the region according to the National Department for Mineral Production, overlapping with 24% of their traditional territory.

Map 4: Mining areas in the quilombola territory

Source: Comissão Pró Indio- SP

The Mineração Rio do Norte (MRN) has plans to expand their mining activity to an area inside the Saraca-Taquara National Forest, which is also part of the Alto Trombetas and Alto Trombetas 2 quilombola territories. The area considered for this mining expansion is equivalent of 8% of their land and it will destroy an area with a high concentration of copaiba trees (*Copaifera langsdorfii)*, which is a resource of extreme relevance for the communities that extract its oil, serving as an important traditional medicine locally and also a source of income (Comissão Pró-Indio de São Paulo, 2016a).

Considering that expansion of the mining activity will have a direct effect on the ability of these communities to access their local natural resources, and that the activity is located on their traditional land, the company must follow a legal requirement to get free, prior and informed consent from these communities (International Labour Organization, 1989). However, during the past seven years, there has been a series of setbacks and disregard for the right of communities to be consulted.

In 2010, the MRN got the installation license to start operations in the Plateau Monte Branco, located in the quilombola territory; in 2012 the company began geological research in other plateaus as a first step towards mining exploitation, which involved putting trucks and heavy equipment in the forest; and in 2013 the company acquired the operations license for the Monte Branco Plateau. None of these activities had the consent of the quilombola communities of the region, an impact study or a compensation plan developed (Andrade, 2011; Comissão Pró-Indio de São Paulo, 2016a).

As a response, the quilombola community joined forces with indigenous communities that were also threated by the mining activity and started a process of raising awareness about the mining in their territory, discussing issues of land management and community rights. This resulted in the Public Prosecutor's office ordering the suspension of all mining licenses until a proper consultation had been carried out in accordance with ILO convention 169, and later a compensation plan agreed. As an answer to the recommendation, in January 2014, the Chico Mendes Institute for Biodiversity Conservation (ICMBio) suspended all previous and current authorisations for mining in the area until the consultation occurred (Instituto Chico

Mendes de Conservação da Biodiversidade, 2014).

Despite the legal recommendation, the Fundação Palmares, which is the organization responsible for carrying out the consultation with the community, failed to develop an appropriate consultation plan and there were allegations that they were pressuring the community to accept the mining research without the need for prior consultation. This was highlighted in a letter of support signed by 168 non-governmental organizations in support for free, prior, informed consent of the communities and the respect for their traditional decision-making process (Dom Bernardo Johannes Bahlmann Bispo da Diocese de Óbidos et al., 2014).

Furthermore, in January 2016, a document signed by 200 quilombolas from the Alto Trombetas territory was handed to the Prosecutor's Office, where they denounced a series of irregularities in the process to acquire the free, prior and informed consent that was being carried out with them. According to the letter, communities were not properly informed about the mining studies and expansion plans, their traditional decision-making process and the time required for it were not respected, there were constant pressures from both the MRN and the Palmares Foundation for a quick decision, there were many promises of jobs which were deliberately made to persuade the community to accept the mining, and they questioned the representativeness of the process (Quilombolas da Terra Alto Trombetas, 2016).

Due to all these irregularities, in April 2016 the Public Prosecutor's Office asked the Palmares Foundation to cancel the technical notes attesting that a free, prior and informed consultation had been carried out with that population and requested that a proper consultation take place (Ministério Público Federal, 2016a). In September 2016, the Public Prosecutor's Office issued a recommendation for the cancellation of the Monte Branco Plateau operations until the consultation occurred and compensations were agreed with communities (Ministério Público Federal, 2016b).

Despite all this, in July 2016, the Brazilian Institute for the Environment and Renewable Resources (IBAMA) gave authorization for the MRN to start studies on the local fauna for the elaboration of the Environmental Impact Study for the Plateau Zona Central and Oeste (Instituto Brasileiro de Meio Ambiente e dos Recursos Naturais Renováveis, 2016a), disregarding previous recommendations of the Public Prosecutor's Office where it was highlighted that an adequate consultation process, as

required by the ILO 169, was never carried out with the communities and the attempts at consultation were characterized by a series of wrongdoings as stressed by the communities in the open letter of 2016 (Ministério Público Federal, 2016b; Quilombolas da Terra Alto Trombetas, 2016).

It is important to consider that one result of this inappropriate consultation process was the occurrence of tensions and conflicts between communities, exposing the power imbalances that exist between quilombolas and the MRN, and how mining activity has already changed local circumstances. The communities that are near the company's installation have developed a dependent relationship with the company, as the population relies on the work of mining for their subsistence. These are the communities that are supportive of the company's expansion. The communities that are further away, however, still maintain a traditional way of living and for that reason believe that free, prior and informed consent prior to any activity on their land is necessary, including the finalization of their land title process as a priority prior to the continuation of the MRN's expansion (Comissão Pró-Indio de São Paulo, 2016a).

Indeed, an important aspect of the current mining struggle is related to how mining is linked to the more political issue of the land title. The area of mining expansion is located in a conservation area (the National Forest Saraca-Taquara), which is the reason the Chico Mendes Institute for Biodiversity Conservation (ICMBio) is involved in the authorization process, as this is the federal institution responsible for managing and protecting the area. However, there is untitled quilombola land inside this conservation area, and it is understood that one of the reasons for the slow resolution of this specific land title process is related to geographical location and consequentially all the interests arising from this. As the competent authority for the management of the National Forest, the ICMBio receives financial compensation for destruction caused by mining activities in these areas. For instance, for the 1800 hectares of the Monte Branco Plateau, it is calculated that the Institution would receive the sum of R$ 83 million, approximately £21 million (Instituto Chico Mendes de Conservação da Biodiversidade, 2016). If the quilombola communities were to receive their land title sooner, this compensation would have to be shared with them. This has led to the belief that both the ICMBio and the MRN have interests in delaying the process of granting the land title of these communities (Chiaverini, 22nd of August 2016).

(ii) Hydroelectric Power

Exploitation of the Trombetas and Erepecuru rivers for hydroelectric power is outlined in the 2030 Brazilian National Energy Plan. It is estimated that the Trombetas river sub basin has a hydroelectric potential that represents 8.1% of the total Amazon basin potential. According to studies, there could be approximately 15 hydroelectric power plants on this river with an area of 5,530 square kilometres estimated to be flooded. The areas impacted include indigenous lands, quilombola lands and an area 10km from the buffer zone of the Biological Reserve (Andrade, 2011; Comissão Pró-Indio de São Paulo, 2016c).

As with the mining situation, there has been a disregard for the right of communities to be consulted. In June 2014, the Energy Research Company (EPE) began a socio-environmental study to carry out a hydroelectric inventory in the area of the Trombetas River without previously consulting with the quilombola communities and indigenous people of the area. As a response, in August 2014 there was a recommendation from both Federal and State Prosecutor Offices to stop all research and activities related to implementing a hydroelectric power plant until free, prior and informed consultation according to the ILO 169 convention is carried out with affected communities (Ministério Público Federal, 2014b). There has been no further development since.

(ii) Logging

One of the legal requirements necessary for the approval of a forest management plan, essential for legal logging activity, is land tenure. In the Amazon, ownership of land is something that has historically caused conflict and uncertainty. An Imazon Study from 2008 shows that 53% of the territory of the Legal Brazilian Amazon has no established legal ownership, 43% consists of protected areas and 4% of private legal lands (Barreto, Pinto, Brito, & Hayashi, 2008). This lack of land tenure creates legal insecurity in terms of investment in the territory and difficulty for communities to access public policies. In this way, areas that have legal titles, such as quilombola and indigenous lands, are often the focus of companies that wish to invest in logging activities (although this rule also applies for non-timber products, such as the bioprospecting sector that has an interest in genetic resources).

The quilombola communities of Oriximiná that have already acquired land titles have been approached several times in the past by logging companies wanting to exploit their forests, but have constantly refused to accept proposals. This changed in February 2011, when the land associations[18] from two titled territories (Trombetas and Erepecuru) signed a contract with the logging company 'Construtora Medeiros Ambiental Ltda.' to exploit timber from their territory. The license for exploitation was issued in August 2012 for an area equivalent to 17% of the Erepecuru quilombola territory and 23% of the Trombetas quilombola territory (Andrade, 2011; Comissão Pró-Indio de São Paulo, 2016b).

Of all the risks of having logging occur in their territory, the greatest concern is how unprepared the land associations are for dealing with issues related to logging. This is extremely important, as the association is legally accountable for many aspects of logging activities as rightful owners of the land. The process of negotiation between the communities and the company was completely asymmetrical as the land association did not have any technical or legal support before signing the contract, meaning decisions were taken without being properly informed about the implications of logging in their territory. Furthermore, they do not have the tools or expertise to monitor and control the activities of the logging company in their territory, which puts them in a vulnerable position when dealing with an activity that has a long history of illegality and violence in the country (Andrade, 2011; Comissão Pró-Indio de São Paulo, 2016b).

It is possible to hear dissident voices within communities that question the negotiation process as well as the benefits promised to the communities:

> 'I am not in favour of this logging company. I would be in favour of a logging company (…) where communities would do a project for community members to be the loggers. For instance, they could create a firm to provide jobs to the communities (…) I am telling you that we are not going to get any money from this logging company. I know these things. I have known the mining activity from when it started! Who do you think works there? The same is going to happen here [with the logging]. There will be only people with blue eyes,

[18] Land associations were created with the intention of being recipients of the land title (due to their collective nature) and responsible for its management.

> people with silver eyes, because they are educated, because they have learned, because they know this and that. (…) They are going to create this great devastation and when they don't want it anymore they will leave and we are going to remain with what we have now. The animals are going to suffer. And this story that people are telling that each family is going to get 3000 reais per month, I can tell it is not true! I am 68 years old and I have been around, I know these things' (Interviewee 10, 2012).

The logging company agreed to pay R$ 3,000.00 per month (approximately £765.72 per month) to the families of the Erepucuru territory and R$ 1,804.43 per month (approximately £560.56 per month) to the families of the Trombetas territory for the duration of the 5 year contract (Comissão Pró-Indio de São Paulo, 2016b). The suspicion reflected in the interview above became a reality, as between 2011 and 2016 each family only received a total amount close to what was promised as a monthly income (R. P. Ramos, 2016).

To make the situation more complicated, in 2015, the Institute for the Environment and Renewable Resources (IBAMA) issued the quilombola association of the Erepecuru territory with a fine for the amount of R$ 1,611,500.00 (approximately £411,293.26), as they hold the legal title to the land and therefore are legally responsible for the logging activity in their territory. The project has been since been embargoed and is currently pending trial (Comissão Pró-Indio de São Paulo, 2016b). According to the IBAMA website, the Land Association is being investigated for providing fake documents to cover up the illegal trade of timber and for the infringement of flora, a legal term used to refer to the destruction or damage of vegetation (Instituto Brasileiro de Meio Ambiente e dos Recursos Naturais Renováveis, 2016b) .

5.5- The Right to Land

The right to land permeates all previous challenges, as it is a fundamental right of traditional communities, and has been legally protected by various types of national and international legislation, such as the Brazilian Constitution and the ILO 169. Despite this legal guarantee, the quilombolas of Oriximiná still live in a state of

uncertainty regarding the status of their land.

The quilombolas are distributed in eight territories (see Table 1) with a total extension of around 965,800 hectares, out of which five territories are titled, one is partially titled and two are yet to be titled. These remaining untitled territories overlap with the Biological Reserve, the National Forest and the most recent State Forests of Faro and Trombetas that were created in 2006 (see map 4). Since 2000 these land title processes have been looked up by the relevant land institutions, although at an extremely slow pace (Andrade, 2011; Comissão Pró-Indio de São Paulo, 2016d). As a result, in February 2015, the Federal Regional Tribunal issued a public civil action against the institutions responsible for land tenure in the country requesting the conclusion of the process to issue land titles to these quilombola lands, giving them two years to finalize them (Tribunal Regional Federal da 1a região - Santarém, 2015).

Map 5: State Conservation Units (lighter green areas)

Source: Comissão Pró Indio- SP

The overlap of quilombola territories with these conservation units is understood to be the main reason for the slow recognition of their land. The State of Pará has agreed to review the limits of the state forests to allow for the titling of the Aribamba and Cachoeira Porteira quilombola territories, which just received its title in March 2018. However, there is a general understanding that the ICMbio has no interest in the quilombola territories of Alto Trombetas and Alto Trombetas 2, which

are located inside the Biological Reserve and the National Forest, receiving their land title (Comissão Pró-Indio de São Paulo, 2016d). The quilombolas from these territories face a difficult scenario where the government is taking almost two decades to recognize their right to their traditional territory while giving the mining company the right to exploit bauxite ore from these same lands.

The most recent development in this legal fight was the publication by INCRA of the Identification Report of the quilombola territories of Alto Trombetas, Trombetas 2 and Ariramba in early 2017. This report is important because it symbolizes the official recognition that the quilombola communities have the right to their traditional territories, including those overlapping with conservation units. This is a step closer towards gaining the title of their land (Comissão Pró-Indio de São Paulo, 2016d). In a letter addressed to the Ministry of Environment, ICMBio and INCRA, the quilombola communities showed their satisfaction with the release of this report but also highlighted their concern for the need to ensure their full participation in the process and the need to acquire a land title for their whole territory (Associação Mãe Domingas, 15th February 2017).

The relationship that the quilombola communities have with their territory defines in many ways their culture and the way they manage local natural resources, thus it being extremely important that the right to their traditional land is secured. The history of land demarcation in the quilombo of Oriximiná is characterized by internal tensions, violence and disruption. An important aspect of this process was the division between what they called ‘individuais’ (individuals) and the ‘coletivos’ (collectives), which shaped the discussion that the quilombola land should be collective, hence the need for the land association to receive the land title of a given territory. The ‘individuais’ were those that did not agree with a collective land title, preferring instead to receive an individual plot of land. These people were mostly ‘outsiders’ who had been living in the territory, but there were also quilombolas that were against the collective demarcation of land. At the time, there was a lot of pressure from farmers who were pushing for an individual title of the territory, as a collective land title means that the land cannot be sold or split, which would derail their plans for agribusiness expansion (J. F. Sauma, 2009). Some people opted to become individual landowners, while the great majority had their land titled collectively, which inevitably created internal tensions.

An important result of the collective land title is the change of perception

between the idea of traditional territory and land. Gallois (2004) makes an important distinction between an indigenous land, which is defined by a legal/political process and an indigenous territory, which 'refers to the culturally variable construction and experience of the relationship between a particular society and its territorial base' (Gallois, 2004, p. 39). This same distinction can be used in the quilombola land context, where the community had to rethink the way it understood its territory by discussing which communities shared the same land; which areas are used for extractivism, such as the Brazil nut areas, and should be included in their territory and what were the limits to their own communities (Andrade, 2015).

This was a very important process because it changed the way the communities related to their own territory and their natural resources management. Once they have their areas titled and therefore legal security of land ownership there is an inevitable attraction of external interests to exploit the land and its resources, such as the case of the logging company. The same applies to bioprospecting research that looks for potential traditional knowledge and genetic resources that may lead to new scientific findings and eventually products to be put on the market. For them, security of land tenure is also key to guaranteeing the success of their investment.

By maintaining the collective nature of their territory, the quilombola communities of Oriximiná also protected their culture and traditional knowledge, which are directly linked with their understanding of their collective territory. As will be further explored in Chapter 7, their understanding of wellbeing, illness and cure are linked with their perception of being 'coletivos' (J. F. Sauma, 2009). In this sense, by protecting their territory, the quilombolas of Oriximiná have maintained their vast knowledge of medicinal plants, which is the focus of the study of the Federal University of Rio de Janeiro with these communities.

5.6- Bioprospection in the Quilombola Community of Oriximiná

In December 2007, the Genetic Heritage Management Council (CGEN) authorized the Federal University of Rio de Janeiro (UFRJ) to access genetic resources and associated traditional knowledge from the Quilombo of Oriximiná for bioprospection activities. The project was entitled: 'Bioprospection of Pharmacologically Active Species Used as Medicine by the Quilombola Community of Oriximiná' with the objective of searching for bioactive substances according to

their traditional knowledge, with a focus on their knowledge of respiratory and central nervous diseases (Ministério do Meio Ambiente, 2007). This was originally a PhD research.

The first contact between the University and the community was made via the Association for the Remnants of the Quilombola Communities of Oriximiná (ARQMO), through a series of telephone calls and emails, where the research project, a copy of the contract of access and benefit-sharing, the access form[19] and the relevant legislation[20] were sent to the association for analysis (Oliveira, Leitão, O'Dwyer, Leitão, & ARQMO, 2010). This exchange of information happened between December 2005 and April 2006. On 2nd May 2006, a meeting between ARQMO and the University was arranged at the ARQMO headquarters in the city of Oriximiná (Ministério do Meio Ambiente, 2006).

At this meeting, University researchers presented to the ARQMO coordinators the objectives of the project, its methods, phases, attached risks, duration and funding sources. After the presentation, each coordinator completed an evaluation form where questions were asked in relation to their level of understanding of the project, with all forms having very positive feedback, where 100% rated the presentation as 'good' or 'very good' (Oliveira, 2009; Oliveira, Leitão, Leitão, & Santos, 2006). The coordinators made their decision the following day, announcing their acceptance of the project on their territory (Ministério do Meio Ambiente, 2006).

Considering that this meeting happened in the city, the University researchers had the chance to briefly present the proposal to two quilombola communities (Jauari e Pancada), which was followed by the signing of the consent form and the contract for access and benefit-sharing by the ARQMO coordinators, both of which were previously drafted by the University and taken to Oriximiná for consideration and signature (Oliveira, 2009).

As specified in resolution number 6 of the CGEN[21], the community consent

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[19] The access form is a form that the bioprospector has to fill in during the authorization process. This form contains basic information about the project and what is going to be accessed.

[20] Resolution 11 of the CGEN, resolution 12 of the CGEN, provisional measure 2.186-16

[21] Resolution 6 of CGEN establishes guidelines for the Community Consent Term for the access to traditional knowledge associated with genetic resources with the potential or perspective of commercial use.

form signed by the ARQMO had in its text the objective of the research, the methodology that was going to be used, the type of information they were looking for, which communities they were going to work with[22], who was financing the project and a brief description of the monetary and non-monetary benefit-sharing scheme. More specifically, the consent form stated that the results obtained from this research would be presented to the community in the format of courses, seminars and written material designed to preserve the community's culture and bring improvements to the community's health. In the case of commercial use of the product, an addendum to the contract would be made in order to ensure that the community would get a share of the benefits (ARQMO & UFRJ, 10/01/2008; Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003).

The University argued that because this was an academic research project with a product that was not yet known and therefore had no identifiable commercial use, it would not be possible to follow all the specifications of resolution 11 of the CGEN[23], where they would have to define percentages of benefit-sharing prior to the product's commercialization. Hence, article 4 of the benefit-sharing contract states that once potential for commercial use is identified (by the University or by third parties) they would make an addendum to the contract with the specifications of the benefit-sharing agreement (ARQMO & UFRJ, 4/05/2006; Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 25 de Março de 2004; Oliveira et al., 2010).

According to the relevant legislation, as the project was to access the traditional knowledge of the communities as well as the genetic resources of the region, an anthropological report was needed in order to attest to the validity of the consent process (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003). Due to the lack of resources of the project, CGEN agreed to cover the expenses of an independent anthropologist to do the report. During the 8th to the 19th of January 2007, an anthropologist accompanied by the

[22] The communities identified were: Serrinha, Varre Vento and Bacabal (Trombetas area), Pancada, Jauari, Espirito Santo and São Joaquim (Erepecuru area), Abuí, Tapagem and Paraná do Abuí (Alto Trombetas Area)

[23] Resolution 11 of the CGEN establishes guidelines for the elaboration and analysis of the Contracts for Access to Genetic Resources and Benefit-sharing that involves access to genetic resources or associated traditional knowledge of indigenous or traditional communities.

University researchers visited the communities of Pancada, Jauari, Espírito Santo, Serrinha and São Joaquim to evaluate the process of community consent that had taken place the previous year. The general conclusion of the report was that community consent was acquired according to national legislation (O'Dwyer, 2007; Oliveira, 2009). After providing the consent form, the contract and the anthropological report, together with other necessary documentation required by the legislation, the UFRJ got authorization in December 2007 to initiate its project in the quilombola communities of Oriximiná (Ministério do Meio Ambiente, 2007).

(i) The Results of the Bioprospection Research

The first results of this access show the vast traditional knowledge held by the quilombolas of Oriximiná and the potential that exists for bioprospection in the region. The research was carried out in five communities[24] and 35 people[25] were interviewed in total, where 235 ethnospecies[26] were identified, with a total of 2,508 indications of use to treat several diseases. Of these there were 227 species, from 211 genus and 77 botanical families (Oliveira, 2009).

The researchers were able to identify plants used specifically for the illnesses that were the focus of their research in the region. One focus was the identification of plants used for diseases of the central nervous system, specifically for Alzheimer's. Using a free-list technique for plants used for memory loss, forgetfulness, aging, weakness of mind, weakness of men, etc. their research identified 36 ethno-species used locally for treating these symptoms (Oliveira, 2009). The free list technique allows for the listing of information about a specific cultural domain, which can be understood as words, concepts, sentences that are related to the subject of study. Free listing can be used as an exploratory technique, it can be used to identify meaning of specific words from the subject studied, or even to identify a society's cultural knowledge about something (Thompson & Juan, 2006; Weller & Romney, 1988). In the Oriximiná case, the researcher described how this specific community did not have experience with Alzheimer's disease and the free list allowed for the exploration

[24] Bacabal, Aracua do Meio (Trombeas land), Serrinha, Jauari and Pancada (Erepecuru Land).
[25] Fifteen men and nineteen women.
[26] Ethnospecies in this context can be understood of popular names given to different plants.

of similar concepts of this illness, which were more culturally relevant. So for instance, for this quilombola community 'a weak memory' could be a sign of 'weak nerves' so many of the plants identified were full of nutrients or used as tonic and fortifiers. Also, according to them, in order to strengthen the mind the body must be cleared of impurities, so plants that induced vomiting or that were purgative were on the list (Oliveira, 2009). This reinforces the theory that the traditional knowledge system is not just about the identification of active compounds of plants, but is a holistic view of health and illness relevant in a specific cultural context (García, 2010).

In another focus of the study the University identified 43 ethno-species used by the community to treat tuberculosis and related illnesses/symptoms. In a similar way, they used the free-list technique and an ethno-directed enquiry using local terms associated with respiratory/tuberculosis diseases such as cough, weakness, lung problem, etc. (Oliveira, Leitão, et al., 2011). A literature review of these 43 ethno-species demonstrated that, in the scientific literature, 93% of these have been identified as useful against respiratory diseases, validating the traditional knowledge of these communities about plants. Also, the researchers tested some of the plants for anti-mycobacterial activity through random and ethno-directed methods. Results showed that 50% of the plants from the ethno method tested positive for anti-mycobacterial activity compared with 16.7% of species from the random method, demonstrating the potential of traditional knowledge for helping identify active substances in nature (Oliveira, Leitão, et al., 2011). One of the interesting results of this plant analysis is the corroboration with other studies that attest the relevance of traditional knowledge for pharmaceutical research (Albuquerque & Hanazaki, 2006; Etkin & Elisabetsky, 2005).

In relation to malaria, the researchers identified 35 ethno-species used by the quilombola community to treat the disease, where 44% of the interviewees identified the use of the plant saracuramirá -*Ampelozizyphus amazonicus* Ducke- for malaria and also for tonic and depurative use, which is explained by the community's understanding of malaria as a disease that requires cleaning and strengthening of the body. For them, the use of saracuramirá prevents, cures and protects against malaria (Oliveira, Costa, et al., 2011). Laboratory research on this plant was not conclusive on the full effects of saracuramirá on this illness, nevertheless, its other property of body fortification has been looked at by the University and the Brazilian Agriculture

Research Corporation (EMBRAPA) as a potential key ingredient in a powered energy drink (Freitas et al., 2013; Mendes, 12/03/2013).

In 2010, with the aim of further researching the species identified, ARQMO signed another Community Consent Form allowing for a four-year expansion of the project. Some of the activities described in this new form were: an inventory of the species with anti-inflammatory and analgesic characteristics, development of an energy drink from the saracuramirá, development of a repellent from the Brazil nut tree and anti-malaria research- all these to be developed in partnership with other research institutions[27]. Furthermore, it is also stated that if any of these research findings are exploited commercially, there would be a benefit-sharing contract ensuring that rights, responsibilities and benefits are defined accordingly (Ministério do Meio Ambiente, 2006).

(ii) Phase Two of Access: Technological Development

After the initial study, the University started the technological development phase of two main products: an energy drink based on the 'saracuramirá' plant and a medication using a type of resin locally known as 'breu'. Hence, as part of the process, in March 2012 the University researchers returned to the community to talk about this new project phase, renew consent, discuss the benefit-sharing contract and collect the 'breu' from nine communities. During this visit they had meetings in four communities (Bacabal, Varre Vento, Pancada and São Joaquim), where they explained the current phase of the project, gathered more information about these plants with the community and collected samples of these species to take back to the laboratory. In addition, they had a meeting with ARQMO coordinators to discuss the details of the new benefit-sharing contract (R. P. Ramos, 2012).

The proposed contract was an unusual benefit-sharing agreement, where University and community would get equal share of benefits[28]. In the case of the medication using 'breu', for instance, this would be through an agreement where the

[27] Federal University of the Amazon State, Federal University Fluminense, Bandeirantes University, National Institute for the Amazonian Research, EMBRAPA, Oswaldo Cruz Foundation

[28] In Brazil, most benefit-sharing contracts give the community 0.05% of the profits made on the sale of products using the natural resources accessed.

University and the community would receive 41.7% each and the research partners (EMBRAPA and Federal University of the Amazon State) would get 8.3% each (ARQMO & UFRJ, 2012).

According to the University researcher, the equal sharing of benefits would be a way of avoiding problems in the future, ensuring that the benefit-sharing is fair and equitable: 'I decided to have both, fairness and equity, because I believe that communities need resources to preserve biodiversity. There was a lot of dedication on behalf of this community to my research and I was able to identify centuries of transformation, knowledge, formation and construction. That is why I consider this just and equitable' (Oliveira, 2013).

5.7- Concluding Remarks

The description of the access to the genetic resources and traditional knowledge of the Oriximiná quilombo is an example of bioprospection that followed all the relevant legislation, respecting each step of the process. Although there is not yet a finished commercial product arising from this access, the prospect of commercialization generated a benefit-sharing contract that reflects a very literal definition of equity where both University and community would get the same percentage of the benefits. For many, this project of bioprospection represents the possibility of giving value to a standing forest, protecting local traditional knowledge and in turn becoming a possible source of income for the communities.

In contrast, as described in this chapter, all current so-called 'development projects' of the region are a direct threat to the traditional livelihood of these communities and to the local management of natural resources, serving mainly the interests of the State and corporations.

The expansion of mining activities, plans for the construction of hydroelectric power stations and the broken promises of the logging company are examples of activities that exploit a territory under external pressures to develop in a way that does not reflect the needs of the local population. This becomes even more evident when we look at the ongoing struggle of the quilombola communities to secure their right of land ownership, which is the first step to guaranteeing the livelihood of this population, protecting its culture and customary norms.

The contextualization of the quilombo's history and territorial challenges

presented in this chapter is important because it provides a basis for analyzing how this community deals with the many external actors that enter their territory. The bioprospection activity is no different to mining or logging in the sense that it can also affect the relationship that these communities have with their natural resources and tradition. The achievement of fairness and equity in the benefit-sharing contract would be a way of guaranteeing that the interests of these communities were taken into consideration in the process and in the final result.

The Oriximiná bioprospection case study followed all legal requirements and the contract signed had an equal share of the benefits, which makes this an interesting case when evaluating the fairness and equity of the benefit-sharing contract. Using the rights-based approach as the foundation of the analysis and the four-step guideline, the next chapter will critically analyze how the Federal University of Rio de Janeiro accessed the traditional knowledge of the Oriximiná quilombola communities, focusing specifically on the process of acquiring free, prior and informed consent, at the level of the participation of communities and on power relations between different actors.

6- The Right to Participation, Knowledge and Free, Prior and Informed Consent in an ABS Agreement

6.1- Using the Four-Step Guideline in Analysis of The Oriximiná Quilombo Access

The access of genetic resources and traditional knowledge of the quilombo of Oriximiná by the Federal University of Rio de Janeiro (UFRJ) is seen as a successful example of access in Brazil (Kishi, 2009; Santilli, 2009) despite not being yet at the point of sharing the benefits. As described in the previous chapter, the University followed the necessary guidelines provided by national legislation, having signed a benefit-sharing contract that reflects a literal understanding of fairness and equity, where both community and University would get the same percentage of the benefits that might arise from the commercialization of the final product.

The signature of the contract brings the idea of justice in exchange, where considering there was no coercion, both parties agreed this would be a fair deal and signed

the contract. This access has not yet generated monetary benefits as the researchers are still at the phase of technology development and there is no product on the market. Despite that, it is possible to use this case study to illustrate components of the access and benefit-sharing (ABS) that is important when discussing a fair and equitable agreement.

The four-step guideline described in chapter 3, (i) Scenario Analysis, (ii) Scope, (iii) Depth of Rights and (iv) Power, will be the tools used to look at this case study using a rights-based approach. The questions proposed in each of the four steps will serve as a guide to lead the analysis and understand which rights were taken into account and how (if at all) they were respected and fulfilled in this ABS agreement.

In the scenario analysis we need to ask the following questions: which rights are considered; who are the duty bearers, the rights holders and what are their responsibilities; and whether there exists relevant legislation to support the rights identified.

This research has outlined a set of rights that will be the focus of this study: the right to participation, the right to be consulted (free, prior and informed consent), the right to information, the right to culture (to maintain their traditional knowledge and recognition of customary norms), and the right to land security. These were the rights that appeared relevant in the analysis of this particular case study and also in the discussion of RBA to conservation; however, this does not mean that other rights cannot be considered in other ABS scenarios. This chapter is going to look specifically at the first three rights outlined above, followed by chapter 7 which is going to analyse the right to land and the right to culture. The main focus of the analysis is to shed light on how the fulfilment (or non-fulfilment) of these rights can have an effect on the process of acquiring benefit-sharing, and as a result, on the justice and fairness of the outcome.

In terms of rights holders and duty bearers, we can identify three main actors. The first duty bearer is the Federal Government, represented by the Ministry of Environment, which has the legal responsibility of overseeing cases of access in the country, guaranteeing that laws are upheld and that rights are respected. The second is the bioprospecting institution, in this case the Federal University of Rio de Janeiro (UFRJ), which has the duty to respect all legislation (national and international) related to access and respect the rights of traditional communities in the country. Finally, there are the communities and their leadership, who hold a series of rights that must be (at least) respected throughout the process. However, as will be seen in this chapter, community leaders are also duty bearers as they are responsible for ensuring that rights of communities are upheld.

The last item in this scenario analysis is the need to identify legislation (national and international) that might be relevant to guaranteeing rights are respected. In this case study, the analysis took into consideration Provisional Measure 2186, the Genetic Heritage Management Council (CGEN) resolutions, the Convention on Biological Diversity, the Nagoya Protocol, ILO 169 and national legislation on land titling of quilombola communities (Decree 4887).

A relevant aspect to consider is that the analysis of the ABS process occurred in relation to Provisional Measure 2.186. The access of the genetic resource and traditional knowledge of the Oriximiná quilombo happened under the regulation of the provisional measure and therefore this is the legislation that will guide this analysis. As previously explained, this provisional measure is no longer valid and Law 13.123 from 2015 has replaced it. Nevertheless, the ABS elements that will be discussed in this chapter are relevant for the new law as the focus is on the rights of these communities, a discussion also present in Law 13.123.

The following sections will specifically look into the right to participate, the right to be consulted and the right to information in order to understand how the ABS agreement had an impact on these rights. The table 'Scope of Rights' as well as the questions identified in the table 'Depths of Rights' will give orientation to the analysis. This will be followed by a specific section on power and rights, where the power asymmetry in ABS agreements will be briefly looked at. This chapter will finish with a more detailed look at the table Depths of Rights, attempting to address the questions proposed for each relevant dimension.

It is important to point out that this will not be analysed through a chronological order of how access happened in the quilombo of Oriximiná, but how rights were respected, supported and/or fulfilled throughout the process of the access and benefit-sharing agreement. It is not the intention here to judge the errors and successes of this case study and this research recognizes the contributions that this specific access has made to the discussion of ABS in Brazil. The main aim is to try to understand how using a rights-based approach where there is a concern for the 'process' at the same time as for the respect of customary norms can create a scenario with a much better chance of achieving fairness and equity in benefit-sharing for all stakeholders.

6.2- The Right To Participate In All Levels Of The Decision-Making Process

The Convention on Biological Diversity (CBD) and Brazilian legislation on ABS highlight the need for the participation of indigenous people and traditional communities in activities related to the access of genetic resources and traditional knowledge. For instance, article 8 (j) of the CBD reinforces the need to respect traditional knowledge as well as ensuring the participation of knowledge holders, while regulation no. 6 of CGEN establishes guidelines for the process of prior consent of communities (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003; United Nations, 1992).

Taking the premise that the rights-based approach will be used as the framework to discuss ABS, participation begins to be seen as a right, and therefore communities can rely further on legislation for the support needed to secure this right. The moment the discourse of rights is introduced it is possible to identify rights holders and duty bearers. Specifically for the access and benefit-sharing process, the duty bearer is often seen to be the State, however bioprospector institutions are increasingly made responsible to ensure that the rights of communities are at least respected throughout the ABS. The discussion of the access in the quilombo of Oriximiná will show the complexities and challenges in respecting and securing rights and how that can influence the benefit -sharing contract.

The concept of participation needs to go beyond the superficial level of being a 'fancy' word in ABS to one where there is an awareness of who is participating, their level of engagement, whether their opinions are considered in the process, and where participation respects the customary norms. Participation should be able to bring transformation and break existing power relations as the rights discourse proposes (Cornwall & Nyamu-Musembi, 2004; Pettit & Wheeler, 2005).

In the case of the quilombo of Oriximiná, different spaces of decision-making had a direct influence on participation, affecting not only participation levels themselves but how the issue of ABS was understood by the local population.

If we look at the official decision-making structures of the quilombo of Oriximiná, we can identify three spaces of representation: the Association of the Remnant of the Quilombo of Oriximiná (ARQMO), the 'land associations' and the local coordinators of each community. Each of these spaces cover specific issues related to the community and they all play an important role in the decision-making process (Interviewee 07, 2012; Interviewee 23, 2012).

The Association of the Remnant of the Quilombo of Oriximiná (ARQMO) was

created in 1989 to represent communities in their fight for land titling, to promote and support initiatives that improve the quality of life of communities, to fight against all forms of racism, to support research on the history and culture of the communities and to ensure the conservation of biodiversity and its sustainable use (Associação dos Remanescentes de Quilombo do Município de Oriximiná- ARQMO, 2005). There are 37 quilombola communities in Oriximiná and their land is divided into 8 territories: Alto do Trombetas I, Alto Trombetas II, Erepecuru, Trombetas, Boa Vista, Agua Fria, Ariramba and Cachoeira Porteira.

The 'land associations' were created to specifically represent communities with their land title process. This was necessary because quilombola lands in Brazil are titled collectively and not individually, and therefore they need to be represented by an association. According to their legal statute, 'land associations' have the purpose of administering the land occupied and representing the interests of communities. However, in practice, communities do not rely on the content of this statute for the management of their territory. As we will see below, associations are getting more involved in decisions about projects that will be developed in the territory, being the main representational structure for many communities from their area (Andrade, 2015).

A third level of representation comprises the communities' coordinators, which are elected locally and represent each community, working with local issues such as the distribution of staple food baskets sent by the government or the maintenance of the community boat or power generator (Interviewee 07, 2012; Interviewee 23, 2012; Interviewee 24, 2012).

All these levels of representation play a role in the decision-making process and they maintain a constant dialogue to ensure mutual respect amongst them. An external project is usually presented to ARQMO, as they are often seen as the first entry point to the communities, given that they represent the entire quilombola territory (Interviewee 23, 2012; Interviewee 24, 2012). Once ARQMO coordinators identify which communities should take part in the project proposed they relay that information to the coordinators of the specific 'land associations'. These coordinators decide whether the project proposed is something they are empowered by their statute to decide upon or if it is something that needs to be taken to the communities for further discussion. If this is the case, they can visit each community and get their opinion separately, or they can hold a general meeting to have a collective decision made on the project. This is how, in theory, the decision-making process happens in the Oriximiná quilombola territory (Interviewee 07, 2012; Interviewee 23, 2012;

Interviewee 24, 2012).

However, in practice, the decision-making process is never simple and certainly with traditional communities the process can be even more complex. The quilombola community consent to the project of the UFRJ to access genetic resources and traditional knowledge was given by ARQMO after one meeting with the university researcher. This decision was taken in the space of 24 hours after the University presented details of the project to this association, as specified by national legislation. On this occasion, the University researcher visited the communities of Pancada and Jauari, as there was another group going up the river to talk about a project on Brazil nuts with these communities. The UFRJ researcher was invited to join the group and was given time to explain the ABS project to these communities (Oliveira, 2009).

Nevertheless, the visit to these communities cannot be regarded as a move to acquire consent, as ARQMO had officially given their consent prior to the visit. Furthermore, this ABS project was developed in seven communities and not only those two. Consent to the project was a centralized decision by the ARQMO association without being taken further to the 'land association' or communities that were going to be involved in the project.

Each level of representation has its own decision-making process and areas of responsibility, which were agreed in writing format (statute) or in some cases orally, such as the role of local coordinators. Within this structure, there seems to be an understanding that certain projects can be decided by ARQMO coordinators alone without broader community discussion or even discussion with the 'land association'. This seems to usually be related to how they perceive the importance and impact of a project in their territory.

ARQMO is the main association of the territory and the entry point to access the communities. They have the authority to decide on projects that are relevant to their territory (Interviewee 07, 2012; Interviewee 23, 2012; Interviewee 24, 2012). The issue here is not to question the legitimacy of this association as a decision-making and representational body, but to consider whether there would be another space that would allow for a more significant representation of communities, allowing for wider and deeper participation (Farrington et al., 1993). It is necessary to question whether a project that deals with accessing a certain traditional knowledge that is most likely shared among many communities, if not all, should not be discussed in a different space that would allow for more meaningful participation.

In this respect, an important consideration to make when looking at the right to participate is whether there is a concern for customary ways of decision-making. In the quilombo of Oriximiná, the decision-making process can be more diffuse than it appears the

three structures of representation outlined above. According to Sauma (2015) during general assemblies, the ideal situation is that the decision comes through a vote of 'unanimous consent' after opening up the discussion to everyone, as individual opinion is highly respected in this quilombola community. Unanimous consent is only possible because there is another layer of representation that is very informal but shapes the structure of this society. Some members of the community, the ones who are seen as leaders or respected public figures, visit families to talk about the proposed project prior to the meeting. This is the moment to talk about local politics parallel with their conversations about family issues, hunting and football (J. Sauma, 2015). It is through these moments of informal talks that unanimous consent is built. There is a whole process of dialogue that happens at the household level responsible for constructing people's opinion on a given subject, leading the community to a collective decision.

Hence, before decisions reach official spaces of representation there is a former space, created by the communities, where ideas are presented and negotiated. During conversations, it became clear that the communities recognize the official representational structures and their legitimacy in deciding on projects but at the same time they highly value the engagements that happen at the local community level (Interviewee 08, 2012; Interviewee 10, 2012; Interviewee 11, 2012).

In 2012, when I visited the quilombo for the first time, ARQMO was in the middle of its most severe economic crisis, a mixed result of bad financial management and lack of projects that would fund its activities. This crisis had a direct impact on their ability to engage and mobilize communities. Most people recognized the importance of the association to quilombola history and all the benefits it brought to communities over the years, nevertheless, they also recognized that due to a lack of resources, ARQMO was failing in its representational responsibilities. The income of ARQMO comes mainly from projects they develop and in the past years they had not been able to secure any projects, meaning very limited resources to run the organization (Interviewees 07/08/15/16/17/19, 2012)

This generated an inability to optimally maintain ARQMO headquarters[29] and has also had a negative impact on the ability of the association to visit communities. When

[29] In 2012, with the lack of resources, ARQMO was struggling to pay for its bills and maintenance of its office equipment. Also, no coordinators were receiving payment for their work, which meant that they had less time to stay at the headquarters (in the city of Oriximiná) as they needed to return to their communities and work in the land. They were also unable to pay for fuel needed for the boat, which meant fewer visits to the communities.

asked about ARQMO, a common response was to talk about the economic crisis of the association and often how they are no longer present at the community level in the same way they had been in the past (Interviewees 01/03/08/10/15/ 18/20/24, 2012). Decisions seem to be more centralized within ARQMO coordination and less at the community level. Furthermore, communities identify ARQMO as partly responsible for the lack of projects that would generate income locally.

Indeed, a recent decision to sign a contract with a logging company to exploit collective forest areas is identified by some as one of the results of the weakness of ARQMO. If the association had been stronger, with resources, some claimed, there would have been no need to agree to have a logging company in their territory. It is interesting to see that the decision of the Oriximiná communities to accept the logging company in their territory has been emblematic in many ways. First, it has given the 'land association' a decision-making role that was unprecedented (Andrade, 2014) as the contract was signed with the Erepecuru and Trombetas land associations, as the logging was going to take place in these two specific territories. Secondly, it has highlighted the fact that that the decision-making process is not a simple procedure in the quilombo of Oriximiná.

The logging contract was never the focus of my interviews, but was an ongoing conversation locally and therefore the subject appeared during the field trip, especially when the topic discussed was related to participation and decision-making. The quilombola communities which have signed the logging contract (Erepecuru and Trombetas territories) are clearly divided on what they think about having a company felling trees in their territory, despite the community having decided on a majority vote during an assembly. I was not there to look at whether there was meaningful participation in this particular decision-making process or whether the logging contract is going to bring benefits or not to this community. What is relevant in this context is that the acceptance of this project brought up some important issues in relation to the quality of participation and how decisions are made at the community level, which gives this research an indication of the challenges faced by the ABS contract in question.

Some community members who were against the logging activity complained that there was very little discussion and very little information sharing on the subject, and showed a suspicion that some community members received money in exchange for locally supporting the agreement for this business. There was also a sense, expressed by some people, that decisions taken at the general assembly did not represent the majority of the people nor were representative of what they wanted. This was conveyed in relation to both

the logging activity and the general practice of decision-making in other projects (R. P. Ramos, 2012). This is consistent with the experience of outsider stakeholders that have witnessed decision-making processes of other projects in a general assembly, where despite the majority deciding, not everyone recognized the decision taken as fully legitimate (Andrade, 2014). It is possible to argue that this might be an indication of the situation described by Sauma (2015) where a diffuse construction of the consent is a more appropriate tool for decision-making in this quilombola community. On the other hand, those openly supporting the logging activities believe they will receive a good sum of money from this deal, yet no one has actually seen the contract and there is confusion on how this money is going to be distributed, for how long and under what conditions.

Another important consideration in relation to the analysis of representation and decision-making is that the official structure of representation such as ARQMO, 'land association' and even the concept of community are relatively new to the quilombolas. Before 1989, when ARQMO was founded, there was no representation in the format there is today. Furthermore, the concept of community, as a social and political representational structure, was an imposition of the Catholic church, whereas before there was only a sense of locality between the quilombolas (Andrade, 2015). Hence, it is fair to say that this community is still in the process of understanding its own internal decision-making process. This is not to say that they are naive and isolated people who are not able to negotiate their rights with outsiders. On the contrary, if we understand their historical background of being a quilombo it is easy to see a long history of dialogue with the outsider, through conflicts, commerce and land negotiation as described in Chapter 5. What is new is the process of decision-making and consent imposed on them by the needs of a system which demands a position that doesn't often come naturally. This has consequences on how they construct dialogue about proposed projects in their territory.

The different representational structures and decision-making processes are extremely important in the discussion of ABS as verified by the classic Kraho case study. One of the reasons the access to their biodiversity and traditional knowledge failed was that the consent and benefit-sharing contract was signed with one Kraho organization that was understood by the bioprospector to be the main representative of this indigenous tribe, while ignoring the fact that this was not accurate given there were other associations that were also representative of specific communities. This resulted in other local associations claiming their stake in the contract as they saw themselves as rightful knowledge holders. This situation fed on existing historical internal conflict between different local associations, and

was one of the factors that contributed to the interruption of this ABS agreement (Ávila, 2004; Rodrigues, Assimakopoulos, & Carlini, 2005).

Hence, the discussion of how a community is represented and how decisions are taken should be a point of concern in any ABS agreement. It is important, however, to take into consideration how specific aspects of the organization might affect their ability to involve the whole community in the process. For instance, it is necessary to balance how much the financial situation of ARQMO was a deterrent for them to visit the communities and discuss the project. Considering there are many communities spread over a large territory, access to these areas depends on a boat and fuel, which is not necessarily affordable for an institution in financial crisis. Financial or structural aspects of local organization do play a role in their level of engagement with stakeholders and it is therefore necessary to give these organizations the means to ensure full participation. The question, of course, is whose responsibility it would be to provide this support, having many potential actors such as the State, interested bioprospecting institutions or the community itself.

Another practical problem is that a bioprospector institution, in this case the Federal University of Rio de Janeiro, is not necessarily aware of the different levels and nuances of the communities' representational structures, and therefore usually looks for the official association to initiate the dialogue and get consent. It can be argued that this is certainly the most obvious first step, but the question that should follow is how to ensure that this is actually a reflection of the customary norms of representation and that everyone is represented. One way would be to ensure the direct participation of communities from the very start, ensuring deep and wide participation as proposed by Farrington et al. (1993), where a different range of people (and not the usual group) would be involved in all aspects of decision-making

It could be argued that the sole consent of ARQMO for the access without involving other levels of decision-making did not provide for the necessary linkage of participation as a right, and more importantly, as a right that should be developed according to customary norms. In this situation, the concept of participation loses its ability to give a meaningful voice to all sectors of society. In order to address this issue, a link must be built between participation and rights, turning participation into a tool for empowerment where individuals can engage with dominant forms of power and knowledge, challenging the current power structures (VeneKlasen et al., 2004).

6.3- The Right To Be Consulted: Free, Prior And Informed Consent

Directly related to the right to participation is the process of consultation and consent. In the discussion of access and benefit-sharing, consultation appears as an essential right for the process to be legitimate. This is endorsed internationally by ILO 169, Convention on Biological Diversity and the Nagoya Protocol, and nationally by Provisional Measure 2.186, the resolutions of CGEN and more recently by the Law 13.123[30] (Convention on Biological Diversity, 2010; International Labour Organization, 1989; Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003; Presidência da República, 20 de Maio de 2015; United Nations, 1992).

The right of indigenous and traditional communities to be consulted about activities that might have an impact on their wellbeing and livelihood is a currently accepted norm. ILO 169 is an important tool to ensure that this right is respected and fulfilled by countries. This internationally recognised Convention has pressured governments not only for the need for consultation but also for the preservation of cultures and identities as well as the relevance of self-determination (Figueroa, 2009). For Brazil, which ratified this Convention in 2002, it is essential to ensure that not only indigenous people have the right to be consulted but also that traditional communities should hold the same right of consultation.

The legal features of prior informed consent guarantee traditional and indigenous communities full access to information and facilitation for their effective participation in the process. This, however, demands time and space for debate, as well as consideration of local culture and traditions of decision-making. The appropriate process of consent must necessarily be a participative process, where all aspects are widely discussed and communities have the right to disagree with the proposal. The process of free, prior and informed consent (FPIC) is certainly more than just an acceptance form (Kishi, 2004).

Experiences of putting FPIC into practice have highlighted limitations and challenges in the process which must be considered. The efficacy and legitimacy of this ready formula of 'community consent' that has been presented and implemented in indigenous and traditional communities without much consideration for process must be questioned. In her account of the first free, prior and informed consent process carried out by the Brazilian government, Andrade (2009) argues that this experience could not be considered a FPIC as defined by ILO 169. This consultation was related to planned changes

[30] It is important to point out that although Law 13.123 discusses prior consent, critics say this legislation has weakened the concept. This will be discussed in more detail in Chapter 9

in the legal procedure regarding the titling of quilombola lands. According to Andrade (2009), the process ignored several rights of the quilombola communities, such as the right to an appropriate amount of time to discuss the issue, the right to have relevant information previous to the discussion and in a format adequate to the understanding of everyone, and the right to have the debate with members of government who could act on the discussion instead of officials with no power to negotiate (Andrade, 2009). In other words, the consultation process was staged, where the opinions of communities were not being heard by the people that could actually act on them.

The process of acquiring the consent of the Oriximiná quilombola community is not so different from the one described by Andrade. As in this example, it is not possible to affirm there was free, prior and informed consent if the right to participation of the quilombola community was not fulfilled for most members, which left space for the usual 'top-down' activities. If the process of free, prior and informed consent is well established, it can guarantee traditional communities their right of self-determination, right to deny access, right to recognition and preservation of their culture, and right to be represented according to their own norms (Kishi, 2004).

The right to free, prior and informed consent is part of the procedural rights that will enable countless other rights. As stated by Firestone (2003), **prior** consent is the requirement that indigenous and traditional communities must be consulted before a person, company or institution has access to their traditional knowledge, genetic resources and territory (Firestone, 2003). According to the documents analysed, the UFRJ only started accessing local biodiversity and local knowledge after the ARQMO signed the consent form, therefore respecting the need for prior consent (Departamento do Patrimônio Genético, 2012; Oliveira et al., 2010).

However, it is important to consider whether there was any space for debate of this consent form and whether there was full understanding of its content. In most cases, the bioprospecting institution arrives at the community with the consent form and benefit-sharing contract already drafted, which includes a suggested type of benefit-sharing. It was no different in this case study. As stated by the UFRJ researcher: 'I went to Oriximiná with the terms of community consent and the contract ready and signed by the University Chancellor with the aim of speeding up the process. It would not have been possible for me to show them the contract and then later returned because of a lack of time and resources. My thesis was four years and at that stage at least one year had already passed. So I went there with everything signed' (Oliveira, 2013). The University researchers have to finalize

their research within a timeframe given by the department and financial resources are usually limited. Following a similar logic, companies have market pressure, budget limitations and third party interests that pressure them to speed up the process. This yields a top-down approach to contracts with very limited space for communities to negotiate.

This same imposition from above could be seen with the benefits agreed in the consent form, which were described as 'seminars, courses, a film, publications with ARQMO as co-author, and a book as a way of registering their traditional knowledge' (ARQMO & UFRJ, 10/01/2008). These non-monetary benefits were already in the consent document that was presented by the University to ARQMO. By looking at the process that preceded the signing of the consent form (Departamento do Patrimônio Genético, 2012) and after talking to the communities, it became clear that no space was given to the community to discuss whether this would be the type of non-monetary benefit the community wanted and, if not, what benefits they should desire. For instance, when questioned about whether the community had requested the production of a DVD about their traditional knowledge as one of the non-monetary benefits, a community leader answered: 'No [we didn't ask for that], it was his [university researcher] idea. Listen, why would I want a DVD about knowledge that I already have? What is that for? I agree that the young generation will learn with that but we want a course, something that will bring us an income (...) What do I want a DVD for?' (Interviewee 08, 2012).

Free consent implies that consent should not be subjected to any form of coercion or external manipulation. Objectively, the University did not openly force a decision on the community by, for instance, giving them a deadline to reach a decision (Oliveira, 2013). Nevertheless, there was a tacit message that this was a PhD study that needed to be finalised within a timeframe given by the department and financial resources were limited, which made travelling to the community very difficult. Hence subjectively there was pressure for allowing only the minimum time necessary for a decision, even if this was not stated explicitly to the community. Furthermore, this pressure continued to appear throughout the ABS process, often used by the researcher during community meetings to explain the project's lack of results and the reasons for a limited exchange of information between university and community (R. P. Ramos, 2012).

Similarly, the benefit-sharing contract was presented to ARQMO and signed in a short amount of time, not allowing for full discussion of its content and what exactly it meant to sign a benefit-sharing contract. This is not to say that there was coercion to sign the document, on the contrary, the University sent the contract prior to their arrival giving the

ARQMO coordinators the opportunity to discuss it beforehand. Also, legislation ensures that communities can request help if they need to. However, the contract is the main way through which communities can secure certain specific rights in an ABS scheme so it is essential that they fully understand every detail of it. It would be in this space that communities would be able to discuss important details of benefit-sharing, such as which communities would gain benefit, what should happen when there is shared knowledge between different communities and what percentage of benefits each stakeholder should receive.

It is important to consider how these communities relate to a legal document such as a contract. Indigenous and traditional communities have historically based their trust on the spoken word and less so on the written word. Certainly a legal contract would not be the most familiar instrument to these communities. A story heard on the field illustrates a side of this relationship. When the mining company arrived in their territory, one of the deals made with the quilombola communities was an oral agreement that mining operations would start on their land in exchange for use of the company's hospital facilities, which has appropriate infrastructure and is much closer than going to a hospital in the city of Oriximiná (R. P. Ramos, 2012). As expected, this deal has no legal recognition and has been broken several times as the community has very limited access to these services, most of the time no access at all.

It is important to say that this does not mean that the quilombola communities do not understand the value of a contract. They are aware of the legal importance of such a document, so much that one of the recurring comments about the current logging agreement is exactly the fact that no one has seen the contract (Interviewee 10, 2012; Interviewee 12, 2012). What happens, however, is that the contract does not seem to play a decisive or central role in many situations, at least not the way it does for non-traditional societies. The contract is not given the appropriate weight it has in a negotiation.

A contract is certainly part of the process of gaining trust for a project, but it is possible to see that there are other avenues through which trust can be gained in the community. For instance, the relationship between the University researcher and the community reflected a state of trust that was not based on the benefit-sharing contract. The local people involved in the project trust that the researcher has only good intentions and that is working to benefit the community. It is possible to identify three main reasons for this, none of which are related to the signed contract.

First, the university researcher has been going to the community since 2004, when he started his doctoral research, creating a history and a bond with them. Unlike other projects

that visit their territory, get the data needed and then disappear without ever giving feedback to the community (Interviewees 03/05/06/07/08/09/10/12/15/16/19, 2012), the University researcher constantly returns to the community, which is seen locally as a recognition of their value and culture. The recurring visits of the researcher to the quilombola community, despite not returning with any concrete results and using these visits to acquire more information for his research, sends a strong message locally that he continues working on their project. Second, through his work and actions, the researcher showed that he really valued traditional knowledge, sometimes over western science. I heard a couple of accounts about how he became ill during his visits, sometimes with serious diseases such as malaria, and yet refused to be treated in the city, asking the quilombolas to use their knowledge to cure him. This is extremely important for local people, as traditional medicine has a stigma of being of less value than western medicine, so the fact that a non-quilombola white man chooses local medicine has a particular weight in the community. The third reason concerns a more cultural context where trust is integrated in social relations. Although communities are becoming more aware of the need to be cautious with outsiders, it is still very common for them to share their knowledge without asking questions. This occurred, for instance, in my conversations with knowledge-holders who would share their knowledge on plants with me without hesitation, despite the fact that I had not asked about any particular use of plants. Sharing and exchanging knowledge is a cultural trait which has been done between them for generations. Hence, the trust that local people have with the University researcher shapes in many ways their relationship. Although it is important that an outsider and a community build mutual trust and respect, it is essential that the community understand that there are legal avenues that are there to ensure that their rights are fulfilled and that they cannot solely rely on people's words.

An important component of this equation is the assurance that communities have the right to information, which is the third essential element in the informed consent process. It is necessary that communities are well informed about all aspects of the project before they can give their consent and sign the benefit-sharing contract.

6.4. The Right To Information And Knowledge

Access to genetic resources and traditional knowledge is a new area and therefore still unknown to many stakeholders. It is an interdisciplinary topic dealing with complex issues that are often abstract and situated in different cultural contexts, such as the need to

put a monetary value on traditional knowledge. There is clearly a challenge in communicating and translating these concepts and ideas to local communities (Alexiades & Peluso, 2002).

The starting point for understanding how knowledge about the ABS project was communicated locally is through an analysis of the anthropological report, which is a document required by the national legislation that should be produced by an independent external anthropologist with the aim of measuring the main aspects of the consent process: the forms of social organisation and political representation of the community, the level of understanding of the community about the project and its consequences, the socio-cultural impacts of the project, description of the process of obtaining community consent and whether the process of consent respected the guidelines of CGEN resolution number 6 (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003).

The anthropological report for this access stated that the community had a 'high level of awareness'[31] about the project and that it followed the legal guidelines. Nevertheless, this anthropological report did not explore all aspects of the consent process and as such does not reflect certain important issues of this ABS project[32]. While the report gave a detailed and rich account of the community and its forms of organization, it did not clearly demonstrate the community's level of understanding of the project. The main argument for a 'high level of awareness' is based on a presentation done by the researcher to the community and on the account of only one local person. The report did not explore the methodology used by the University researcher to communicate the project locally nor whether it was appropriate to convey the message needed.

In relation to how consent was obtained, the report described the process of contacting the community, which happened through emails and telephone conversations with ARQMO until arranging for the meeting where the consent form and benefit-sharing contract were signed. However, it does not ask how communities perceived this process, whether it reflected traditional norms or if the information provided by the University was shared to the communities involved in the ABS project.

As mentioned previously in Chapter 5, after the presentation of the project to

[31] Term used in the report

[32] Considering that I am not an anthropologist and therefore could commit a misreading of the anthropological report, I sent the report to an independent anthropologist who analysed the report in relation to national legislation guidelines and submitted his opinion, which is also reflected in this analysis.

ARQMO, the University researcher gave the coordinators an evaluation form, where their level of understanding of what was presented was assessed. There was 100% positive feedback in these forms (Oliveira, 2009; Oliveira et al., 2006). However, it is necessary to question if a multiple choice evaluation form can truly reflect the level of understanding and satisfaction in this situation.

It is important to point out that the anthropological report was done 7 months after consent was given to the University. On the one hand, the fact that community members were still able to talk about the access after this period can be seen a positive sign that the project was understood at some level or at least that there was an impact on the community since people still remembered it. On the other hand, it also meant that the anthropologist was not present at the time documents and contracts were signed and therefore relied on information given by the University and local people to understand the process, which can potentially mean a loss of some of its analytical strength.

This analysis of the anthropological report is important because this document forms part of the basis with which to prove there was appropriate consent by the communities, where information about the project and its consequences were fully understood locally. Considering that access of traditional knowledge has a history of very poor approaches by bioprospectors and violations of community rights (GRAIN, 2000; Mooney, 2000; Shiva, 1998, 2001) it seems necessary to have a more critical view of how the project constructed a dialogue with local knowledge.

I accompanied the University researcher on his visit in 2012 to the quilombo and for five days I observed his relationship with the communities and the meetings he organized. These meetings were usually held at the community centre and involved a brief explanation about the project and what stage it was currently at, followed by an opportunity to ask questions. Some of the people attending these meetings had already met the researcher previously while others were there for the first time. The language used was accessible and the researcher tried to simplify the subject to allow for a general understanding.

Considering the complexity of the ABS, it was my impression as an observer that although the information was communicated to the communities, there was not necessarily full understanding of its content. The university researcher spoke about accessing specific plants from their territory, traditional knowledge and benefit-sharing. These are external concepts that require time and appropriate methodology to be transmitted and understood by communities. The very few questions asked after the presentation was related to when/if they would receive any ‘compensation’ for this project. However, this question was not even

accompanied by an understanding of what a benefit-sharing contract entails.

The small number of questions made after the presentation was understood by the bioprospector to be a lack of doubt about the project, whereas it was my impression that the silence could be more related to communities not understanding enough about the process or feeling uncomfortable with the topic to be able to elaborate a question.

Furthermore, one of the objectives of these local meetings was not only to update communities about the project but also to specifically talk about the technological development[33] of a medication using the resin 'breu' (*Protium* spp.) and the traditional knowledge associated with it. Whereas ARQMO was going to be the institution to sign the new consent form, these meetings seemed to be part of an 'informal consent process'. From an observer point of view, these meetings could not be considered part of the process of acquiring consent as they failed to accomplish the basic step of adequately informing the communities. There was no meaningful discussion about the technological development of this medicine; no clear message was sent regarding the need to get consent, there was no community discussion or vote on the issue. The new consent form was once again given to ARQMO for signing (ARQMO & UFRJ, 2012) and was not discussed with the community. It is important to remember that in the decision-making structure, discussions at community level are highly regarded by local people.

Furthermore, despite trying to use accessible language and simplify some of the concepts, the methodology used by the University researcher to explain the current phase of the project was not able to bridge the cultural and knowledge gap that exists between the researchers and the community. There is a need to develop appropriate communication and information strategies where, as Lewis (2012) identified, the 'social and cultural context, languages, literacy level, political organisation and local styles of exchanging information, learning, discussing and negotiating must all be taken into account to ensure that information is properly transmitted and that the negotiation of consent is therefore viable and durable' (Lewis, 2012, p. 176). In this case, information was transmitted to the community but not translated into local knowledge.

This was verified during field interviews both with community members and

[33] Definition of Technological Development: the systematic work, resulting from existing knowledge, aimed at the production of specific innovations, the elaboration or modification of existing products or processes, with economic application (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 27 de Maio de 2004).

ARQMO coordinators. There is a local understanding that this project is about plants used by communities as medicine and that the University is taking this information to its laboratory to test the efficacy and use of these plants as medicine. The communities are very clear that the focus of this project is on traditional medicine (Interviewees 03/04/06/07/08/10/12 to 19/21/22, 2012). However, it is a very superficial view of the project and one that lacks the necessary deep analysis and understanding of important aspects of the ABS process that is essential to securing their basic rights. There is a lack of qualified knowledge about the project, ignoring the possible consequences of an ABS contract on their territory and the value of their traditional knowledge.

Present in the community discourse is the belief that they should receive something back from this project, some sort of reward for the time they spent collecting the plants and for the help given to the researcher while he was in the field. In most cases, there was a direct reference that they were sharing their traditional knowledge on plants with the University researcher (Interviewees 01/02/03/04/05/07 to 10/11/12 to 15/17/19/21, 2012). However, there was no indication of awareness that they had the right to receive benefits because of this access and that their knowledge held real value for the researcher. The mention of the sharing of traditional knowledge was seen as just one more aspect of their contribution to the research, together with their time and work collecting the plants. They did not have an empowered speech, where they would clearly call for their right to benefit-sharing due to the access of their knowledge.

This has a direct link to the fact that communities complain that a lot of external people visit their communities, but never give anything in return, be it a project, money or even information about the results of the research done in their territory (Interviewees 03/05/06/07/08/09/10/12/15/16/19, 2012). As explained by interviewee 9 '(…) they come here just to get something, we teach them, they take something and get money from it. And we don't receive anything. They take our knowledge, we give them our wisdom and when they get there (the city) they fill their pockets with money and forget about us. They pretend they don't know us. We only exist while they are here to get our wisdom and something they want to learn from us' (Interviewee 09, 2012). This is not unique to this quilombola community but it is present in most indigenous and traditional communities in Brazil, which historically have shared their knowledge and their time with outsiders without receiving anything back.

So it is correct that the communities have a sense of justice, that they should receive something back, even if minimal, because they have opened up their communities to an

external actor. But none of the people interviewed, including the ARQMO coordinators, presented an argument that their knowledge had an essential impact on the University's research and therefore they had the right to the benefits that might arise from this access. There was a general consensus that the University researcher was interested in their knowledge about the usage of plants. However, what was not clear was how the community saw their knowledge on a value scale. They were aware that their traditional knowledge was important for the study, but there was no indication that they could actually measure this value. The fact that the University was more interested in their knowledge than in the very natural resources did not appear in any interviews. The importance of their knowledge was completely played down in their view.

This has an inevitable impact on how they understand the process of benefit-sharing, in this case specifically regarding confusion as to what exactly they would be paid for. A key aspect of ABS is the understanding of what 'accessing a genetic resource' is and the difference between that and using local biodiversity. Although the concept of genetic resources is not so detached from the local idea of using natural resources, it does require a level of abstraction that needs to be worked out carefully. It is very common to confuse the concept of natural resources with the concept of genetic resources, and understanding this difference is a first step towards internalizing the complexities of the benefit-sharing contract. It is extremely important that communities know that what a bioprospector such as the UFRJ is interested in is not, for instance, the plant resin 'breu' (*Protium* spp.) as a pure commodity, but the bioactive compound of the 'breu' that has a specific characteristic that they can use in a drug. Grasping this difference allows for an understanding of the different value given to a bioprospection activity. The quilombolas interviewed understood that the plants collected would be studied to find out if they were potential medication, but it was not clear to them how the process of looking into this 'potential' worked (Interviewees 03/04/06/07/08/10/12 to 19/21/22, 2012).

Another important factor that appeared during conversations and interviews was how the quilombolas understood the use and value of their traditional knowledge in an access activity. In the conversation with communities it became clear that their focus was on the extraction of the natural resources from the forest. Although they were aware that they were sharing their knowledge as well as identifying the plants, they attached much more importance to the activity of extractivism than the fact that their knowledge was going to be used. When asked about the sharing of benefits, they tended to focus on the fact that people that were directly involved in collection and

identification of the plants would receive the money, or at least a larger part of it (Interviewees 13/14/15/18/20/25, 2012). Thus, the focus was directed at the natural resource itself and not the knowledge that came with it.

There was also uncertainty about how a hypothetical monetary benefit would be shared among them. Some affirmed that this benefit should be divided between the families that are part of the two territories where this project is developed: Erepecuru and Trombetas. This means that even the communities or families who did not participate directly in the interviews or collection of material but are part of these territories would be receiving a share of the money (Interviewees 02/03/06/09/14/15/21/23/24, 2012). This partly reflects the respect that exists towards the 'land association' and the communities that form it, as this is part of their struggle to secure their right to their own land.

On the other hand, there were those that believed that the fairest situation would be to distribute the benefits only among the communities where the project had been developed, as these communities spent time and resources in helping the University researcher (Interviewees 04/05/13/20/22, 2012). There were also those who believed that all communities from the region should receive the benefits, as they are part of a collective entity (Interviewee 08, 2012; Interviewee 10, 2012; Interviewee 17, 2012).

Whereas there is no right answer in terms of what would be the best option, it is important to note that the benefit-sharing contract was signed by ARQMO with no specification about how to share benefits, which means that in case of monetary benefit, ARQMO will be receiving it. It will be their decision on how this resource will be distributed. In this case, the communities had no input in the benefit-sharing contract as they were not involved in the process of dialogue and negotiation with the University.

Furthermore, there is an important aspect of any project that works with accessing traditional knowledge, which is the fact that usually knowledge is collectively owned and shared between many communities. It is essential that communities and bioprospectors understand the implication of this in order to accommodate for the many challenges that might arise.

In this specific ABS case study, access of genetic resources and traditional knowledge happened in 7 communities (4 communities from the Erepecuru territory and 3 communities from the Trombetas territories) while there are 12 communities from the Erepecuru, 8 from the Trombetas and 37 communities that are part of the quilombola territory as a whole. Hence, access happened in a relatively small portion of their territory. It is likely that the knowledge accessed is also present in other communities and therefore a

benefit-sharing agreement that does not include these communities could potentially create internal conflict and jeopardise the whole project. The fact that ARQMO is the signatory of the contract means the benefit-sharing agreement will involve all communities, at least to a degree. Nevertheless, this is not necessarily straightforward, especially because the communities not involved in the access do not have knowledge of the project and are not involved in any discussion related to benefits. This is not on the radar of the ARQMO or communities mainly because their knowledge about the project, as mentioned before, is very superficial and these nuances are not perceived as important. It was also not the concern of the University researcher who stated that he did not think it was his role to define how the benefit would be divided (Oliveira, 2013).

6.5- Power and Rights

The RBA to benefit-sharing brings the importance of power to the forefront of the discussion. It is not possible to aim for fair and equitable benefit-sharing where rights are fulfilled to the most if we maintain the existing power structure that defines the internal community relationship as well as their interaction with the outside actor. As Pettit and Wheeler (2005) states: 'Understanding how rights can shift power relations is essential to realising the potential of rights to contribute to change' (Pettit & Wheeler, 2005, p. 1).

The experience of civil society in Brazil in its advocacy for strengthening citizenship (Pereira, Romano, & Antunes, 2005) shows that there is a fine relationship between rights, participation and power. It is necessary for society to be mobilised, including marginalised groups, to challenge the existing power structure and in this way become citizens that will fight for their rights. Participation needs to be able to break with the existing power asymmetry, where citizens exercise their right to talk, to be heard and to decide over issues that affect them. It is not enough to have participation if citizens have no power for decision-making.

There is a very clear asymmetry of power in the majority of ABS relationships, which can be seen in the dynamic between the UFRJ and the quilombola community. By having all the information about the project and process of ABS in Brazil, the University researcher can easily set the content of the conversation and the meetings. The way information is transmitted is as important as the information itself and is a reflection of power structures. As explained previously, a relationship of trust was built between the researcher and the community which inevitably influenced the way people perceived the

project (Interviewee 10, 2012; Interviewee 19, 2012). The hidden and invisible dimensions of power, outlined by Lukes (1974), are clearly seen in the relationship between the University and the quilombola community (Lukes, 1974).

One of the most common power imbalances suffered by indigenous and traditional communities is with the outsider actor. Historically, these communities have been engaging with government, companies and industries in a dialogue that is characterised by a struggle of interest and power. Despite providing guidelines on how to obtain community consent in an ABS process (Ministério do Meio Ambiente & Conselho de Gestão do Patrimônio Genético, 26 de Junho de 2003), Brazilian legislation does not take into account that communities do not have the most basic information about access in the first place, resulting in an obvious power imbalance. What happens in practice is that the bioprospecting institution, which has a direct interest in the community giving their consent to the project, is the one providing all the information on which a decision is made. This often results in biased sharing of information with bioprospecting institutions having a privileged position.

In the vast majority of cases communities are not aware about the process of access nor what their rights and responsibilities are, and as a consequence bioprospectors end up filling in the gaps for communities, or at least attempting to do so. In the case of the quilombo of Oriximiná, there was an explanation to ARQMO about the project, but there was no attempt to capacitate communities about the topic. The field interviews showed that despite having a very general understanding of the project, there was no deep knowledge of important issues of ABS, which is exactly how communities can secure their rights.

It should not be the responsibility of the bioprospector to train communities in this process, as it only reinforces the power structure that already exists. This is a lengthy process that ideally should be carried out by independent third parties, such as an NGO or research institution, and preferably prior to any discussion of access. When the UFRJ sent ARQMO the relevant international and national legislation on ABS, they were 'respecting' their right to be informed, but it cannot be qualified as a fulfilment of the right of information as there was no space for ARQMO and the communities to discuss and fully understand the information given.

The right to qualified information increases the possibility of a community engaging in a relationship with the outsider with less power asymmetry. However, there is a difference between receiving information and fully understanding information. For this understanding to happen, more than just an exchange of relevant legislation is necessary. It is essential to allow for the creation of a space where the information will be discussed, translated into

local experience, debated and questioned to its fullness until the community has knowledge about what it entails.

It is worth taking into consideration the potential role a third independent party can play in the guarantee that rights are respected and that there is a challenge to power structures. In Brazil, the Public Prosecutor's Office has been an ally of indigenous and traditional communities when it comes to the support needed in negotiating with external actors. They have been active partners in minimizing conflict and finding paths to ensure the minimum respect for the rights of these communities. In the same way, NGOs can be of support in these cases by facilitating dialogue, channelling the necessary resources and capacitating communities to understand their rights. Finally, it is important to consider the role of the Genetic Heritage Management Council (CGEN) in potentially contributing to mediating that dialogue. There is a need, however, to take this with caution because it is not in their remit to intervene directly in that dialogue. They will oversee the process, but they will not be following the day-to-day negotiations to ensure that power asymmetries are being taken care of. They are able, for instance, to intervene if a benefit-sharing contract is clearly unjust (although there is no established criteria upon which to make that decision) (Interviewee 28, 2013), but they are not able to follow closely the process of negotiation between communities and bioprospectors.

6.6- The Dimensions of Rights

If we take the different dimensions considered in the table 'Depth of Rights', which is step 3 of the guideline, we see that there are many aspects of the rights identified in this case study that were not completely respected, having an influence on the equity and fairness of the ABS agreement.

(a) Cost

Dimensions	**Questions to be asked for the final analysis**
Costs	- Are there any costs attached to the fulfilment of this right? - Whose actors are responsible for these costs? - Could this be a factor that influences the respect, support or

	fulfilment of a certain right? *Costs do not necessarily mean monetary costs, but could involve non-monetary costs such as the time an individual or group spend in ensuring a right is guaranteed

The 'cost' dimension appeared as a burden to both University researcher, who could not afford many field trips to the community due to limited financial resources, and to the local association, which had no means to fund the necessary visits to the communities in order to maintain an ongoing dialogue with them. There were also the non-monetary costs, often associated with the time community members spent collecting natural resources with the researcher, which appeared as one of the reasons to believe that a payment for the time spent collecting resources was a form of deserved compensation or even benefit-sharing. It is important to point out that whereas it is desired that communities are paid for their work collecting natural resources for external research, that should not be seen as the benefit-sharing agreement, as the potential value of what is being accessed goes beyond the purely physical job of collecting samples. It is essential to measure the value of traditional knowledge in order to understand the real value of the benefits.

(b) Type Of Participation And Decision-Making

Dimensions	**Questions to be asked for the final analysis**
Type of participation and decision-making	- Are all sectors of the society participating, including more vulnerable groups such as women? - Is the participation process representative of the territory and of the local organizations? - Is there an appropriate process of free, prior and informed consent? - Does everyone have the chance to be heard and are their opinions seriously taken into account by decision-makers?

	- Are there appropriate spaces for participation? - Do participation and decision-making processes respect local customary norms?

The dimension 'type of participation and decision-making' is a key aspect in any ABS agreement. Not only is participation central to the RBA approach, as extensively discussed in the literature (Cornwall & Nyamu-Musembi, 2004; Gready, 2008; V. Miller et al., 2005), but also participation of traditional knowledge holders is protected by different legislation. However, as described in this case study, there are many nuances of participation that need to be accounted for. The signature of a consent form and benefit-sharing contract should not be the sole indication that a community fully participated and understood the negotiation process. Considering the geography of this quilombola territory, where communities are spread out and have different levels of representation, caution is needed when proposing participation spaces. Questions about how representative these spaces are, how much communities can contribute to the discussion and how that reflects their customary ways of decision-making are key questions to make. This study showed a significant limitation in how communities were involved in the process of participating and deciding on the ABS agreement that was signed by their local association. The discussion to acquire consent was mainly with the main association (ARQMO), communities did not have a chance to debate the issue more locally, and they were not given the chance to debate the content of their consent and ABS contract. In addition, there was a limitation in terms of the number of communities involved if we consider the whole quilombola territory.

(c) Information Sharing

Dimensions	**Questions to be asked for the final analysis**
Level of Information sharing	- Was the information shared in an appropriate language and format? - Was the information relevant to the project proposed? - Was there enough time to share and assimilate the relevant

	information? - Was there any need to capacitate the communities on the topic and if so, who is responsible for that? - Was all information considered, including information coming from indigenous/traditional communities?

Directly linked to issues of participation is the dimension of 'information-sharing'. Adequate information is important not only for participation and decision-making but also the consent process, which requires that relevant information reaches the communities. As described in this case study, having access to all information (for instance when UFRJ sent all relevant information to ARQMO prior to their meeting) does not necessarily imply that there was empowerment through knowledge. It is necessary to question how much of the information was assimilated and understood by the communities as well as how information shared in meetings was received locally. As the field observation showed, although the information shared by the researcher was relevant, the methodology used to explain its details, associated with the time available to do so, was not appropriate and sufficient to bridge the gap between different systems of knowledge.

One of the clearest reflections of this was the lack of a collective debate and therefore understanding of the many possibilities of benefit-sharing. ARQMO was the organisation that signed the contract with the university but there was no discussion on how the benefits would be distributed, whether they would remain with this association, stay with the communities, with the knowledge holders or distributed at household level. This becomes more complex when we ask which community should receive the benefits considering that only a small part of the quilombola communities were visited for the study. In a discussion where there was access of knowledge that is potentially shared among the whole quilombola community, this does not have a simple answer.

This failure to ensure the fulfilment of the right to knowledge is a reflection of the inability of the ABS to be an equalising process, where experiences, knowledge and needs from both sides are openly discussed and accepted as valid. This would bring the principle of cognitive justice to play an important role in recognising different values and knowledge systems (Jonge, 2011; Leach & Scoones, 2005; Visvanathan, 2005) finding the space where both sets of knowledge can be communicated, understood and acted upon to ensure a

process that is permeated by justice and equity.

(d) Accountability, Transparency and (e) Traditional Norms

Dimensions	**Questions to be asked for the final analysis**
Accountability and transparency	- Are there any independent mechanisms in place for conflict resolution? - Are there internal and external mechanisms that ensure transparency and accountability of the processes that are being put in place?
Traditional norms	- Are all rights being discussed, considered and fulfilled according to customary and traditional norms?

The last two dimensions considered in the Depths of Rights table - accountability and traditional norms - are themes that run through the discussion of rights. In terms of accountability and transparency, there was no independent institution involved to help communities with conflict resolution or mechanisms to facilitate transparency and accountability of the process. The main actors involved were the University researchers and the communities, where the State played a role of purely authorizing the ABS process. Because the communities did not have a chance to extensively and collectively discuss the details of what an ABS means for their territory, they were not given the chance to also discuss mechanisms of accountability or even debate the possibility of inviting an external independent third party to mediate the dialogue, for instance, the Public Prosecutor's Office, a partner NGO (such as the Comissão Pró Indio) or a regional or national association of quilombolas.

Respect for traditional norms was present in the approach of the University researcher who valued local knowledge, giving preference on some occasions to traditional treatment instead of western medicine. However, whereas there was a personal concern to respect local traditions, the structure by which participation, consent and information sharing was built was not completely in line with some of its traditional norms. This dimension is

particularly difficult to consider because it requires, from the biopropector's end, sensitivity and knowledge of local reality that is not necessarily inherent to their institution.

Thus, by putting these rights in the RBA scale provided to analyse benefit-sharing (step 2 of the guideline), it is possible to see that the right of participation, right to consent, and right to information were addressed superficially and are therefore still far from the last stage of the table that supports a progressive realisation of rights through strengthening traditional knowledge and customary norms. Despite having signed an ABS contract that has an equal share of benefits in terms of how much goes to the UFRJ and how much goes to the community, it is possible to question the fairness of this deal by looking at how these rights were considered in the process.

Disregard	**Address Superficially (right to participate, right to consent and right to information)**	**Respect**	**Support protection**	**Support fulfilment**
Allow benefit-sharing agreements to undermine community rights	Address community rights in an insufficient manner or only when convenient. Using rights as a 'tick box' exercise	Do not infringe on or interfere with people's enjoyment of their rights	Assist, encourage and influence duty bearers to refrain from rights infringements	Actively support the further progressive realisation of rights through strengthening traditional knowledge and customary norms. Decline of power asymmetries

In order to have the full picture of this analysis the next chapter will look at the two

remaining rights: the right to land security and the right to culture as the last aspects that must be considered in an ABS agreement.

7- Land and Cultural Rights in the Discussion of Access and Benefit-Sharing

7.1- Introduction

This chapter is concerned specifically with the right to land security and the right to culture, which are inextricably linked and play an important role in the discussion of ABS. It is important to clarify that culture refers here to the customary norms and traditional knowledge of local communities.

When we talk about the right to land tenure we are referring to something more than just a concern for property rights. It is about respecting other types of rights such as civil, political, economic, social and cultural rights as well as the collective right of self-determination (Colchester, 2008). By understanding this aspect of land tenure it is possible to make the link between the right to land security and the right to culture and customary norms, which for traditional communities are two rights that are intertwined and inseparable.

The communities that are the focus of this research are located in the areas of the quilombo that have received the land title: the Erepecuru and the Trombetas territories. The first section of this chapter, entitled 'The Collective Nature of the Quilombola Land', is going to look at how despite having the title for their territory these communities still face obstacles in guaranteeing their tenure rights are fully upheld. The collective nature of their society, which is reflected in the type of land title received, is going to be looked at as a way to form the scenario in which the right to land was acquired and is maintained by these communities. The relationship between those who chose collective land ('coletivos') and those who chose an individual land plot ('individuais') will be explored in order to identify existing territorial and social tensions. In the same manner, the current situation with the logging company will be discussed as a reflection on how ownership of land needs to be accompanied by support for these communities if we are to guarantee minimum respect for their rights as traditional people.

The second section of this chapter, 'Linking Territory and Culture', will look at

how the protection of their territory is not just a matter of ownership of a specific geographical location that provides them with the natural resources needed for their survival. Necessitating a much broader view, this section will show that the protection of their territory is also about the preservation of their cosmology, health system, culture and traditional knowledge. The quilombolas of Oriximiná are in constant engagement with invisible beings and forces from their territory, known as 'encantados' (enchanted), who need to be respected in order to maintain the collective happiness and health of the community. One way to deal with these forces is through the 'sacacas', who are powerful healers/sorcerers that can communicate with the enchanted world and its beings. Thus, by showing the relationship between the 'encantados', the 'sacacas', the quilombolas and their land, this section will highlight how the preservation of culture and traditional knowledge is directly linked with the preservation of their territory and how this must be taken into account in policies related to land tenure and to any activity that has a potential impact on these communities' relationship with nature.

The final part of the chapter will present a discussion of how land and cultural rights need to be considered in access and benefit-sharing agreements that aim to achieve fairness and equity. In order to support this analysis, the four-step guideline will be used to look at different aspects of these rights. The scenario analysis described in chapter 6, which is the first step of the guideline, is also relevant to the content of this chapter, as rights holders, duty bearers and legislation considered are also present when discussing land and culture in this community. The University, the government and the communities are also the main actors when considering these rights. In terms of legislation, it is important to point out that ILO 169 provides a strong legal basis for discussing the need to recognize and protect the social, cultural, religious and spiritual practices of these communities as well their right to maintain and manage their traditional territory. The Convention on Biological Diversity and the Nagoya Protocol are also important in this context as they recognize the importance of traditional knowledge in access and benefit-sharing agreements. Specifically relating to the quilombolas as a group of Brazilian society, it is important to consider national legislation on land tenure, where decree 4887 establishes procedures for the demarcation and titling of their traditional territory. The analysis that will be presented in this chapter is in line with the discussions found in these legal documents. Steps 2, 3 and 4 of the guideline (the table 'Scope of Rights', the table

‘Depth of Rights’ and Power and Rights, respectively) are also going to be looked at in this last section.

As this chapter will use some local expressions and terms which often have very specific meanings, a choice was made to leave these terms in Portuguese and written in inverted commas, in order to avoid an erroneous interpretation of words in addition to facilitating the identification of these terms by the reader.

7.2- The Collective Nature of the Quilombola Land

Throughout their history, the quilombolas of Oriximiná have defined themselves by their relationship with their territory and its surrounding environment. The rivers and waterfalls were a protection from captivity, they used the land for subsistence agriculture and they were able to collect products from the forest that helped to maintain their livelihood, such as Brazil nuts.

Despite the constant threats of being recaptured during the slavery era, racial discrimination, land appropriation, followed by the establishment of a patronage relationship and more recently ‘development’ projects in their areas such as mining, the remnants of the quilombo of Oriximiná have been able to maintain to a great extent their traditional relationship with their territory and local environment. It is possible to observe that the communities are organised in a way that respects the collective nature of their land and the cultural constructions around that.

Every community has a church, where a catholic service is held on weekends, a Community Centre where they hold meetings and festivities, and a football field, as this is a very popular sport among the quilombolas. These spaces are important for the preservation of the collective activities that are at the centre of this society. Each household has its individual patch of land used to plant staple crops such as manioc and banana, which are mainly for the subsistence of that family and occasionally sold in the city. Life as a society goes beyond the area surrounding the houses, as these communities rely on the collective territory of forest and rivers for hunting and fishing, which are only for household consumption and not for commerce. The concept of sharing is common to this society where fish, game and local production such as manioc flour are shared among community members, especially with families in need. Even products which are not locally sourced but bought in the city, like sugar or coffee for instance, are also shared if a family is lacking them (R. P. Ramos, 2012,

2016).

As described, these communities have maintained a network of collective support that is part of their traditional relationship with their territory. Historically, they have managed their land collectively, even before acquiring the collective land title. The elderly from the communities can remember how, in the past, prior to their land ownership, it was common practice for the community to organize turns to work collectively in each other's vegetable gardens, making the job more efficient and in many ways more pleasant as at the end of the workday they would eat together and celebrate (Interviewee 31, 2016). This collective work, known locally as 'puxirum', is still alive among the quilombolas and is recognized as a part of their culture that needs to be preserved and reinforced. This collective practice is done not in exchange for payment but in exchange of equivalent work, thus enabling everyone to have their land ready for agriculture (Acevedo & Castro, 1998b). This labour system allows for the preservation of the individual and communal nature that is characteristic of their land tenure, where a group of people work collectively in someone's individual garden, preserving in this way the more private household activities through collective cooperation (A. Gray, 1999).

Another important memory shared among the elderly is the time spent collecting Brazil nuts in the forest above the waterfalls. The collection of Brazil nuts is of highly significant cultural and economic importance to the quilombolas of Oriximiná, and has been part of their everyday life as far back as they can remember, being a tradition that has persisted through generations. As Scaramuzzi (2015) pointed out, the collection of Brazil nuts has played an important role in the territorial occupation, in the quilombola's relationship with other groups of people and as their entry point to the regional economy. This form of extractivist activity has become one of the main characteristics of this population, who identify themselves as 'castanheiros' (Brazil nut collectors) and quilombolas. This is important because it gives this social group a distinct feature from other rural communities, such as the riverine, giving them the opportunity to be inserted in specific public policies (i.e. territorial rights) and in a specific social political group (i.e. the nuts collectors) (Funes, 2000, 2015; Scaramuzzi, 2015).

For some community elders the memory of families going to the forest to spend long periods collecting Brazil nuts is very much alive, with accounts of how they would collect nuts during the day and gather in the evening to enjoy each other's

company and share food, which was abundant in those areas (Interviewee 30, 2016; J. F. Sauma, 2013). The collection of Brazil nuts remain a key activity for this population and still happens in these areas, however, the memory of those times seems to represent a moment in their history when there was no division among them and the sense of collectivity was strong.

The quilombolas' fight to gain ownership of their territory is an important step in protecting and maintaining their traditional relationship with their land and natural resources. For traditional communities, such as the quilombolas, the right to land is essential to guaranteeing their social, economic, cultural and spiritual reproduction. Acquiring land ownership is key for communities to be able to secure their livelihood and traditional knowledge. The fulfilment of their right to land has certainly been the most important achievement in their contemporary history and continues to be the main demand of the territories yet to receive their legal title. The quilombolas of Oriximiná and the indigenous people from that region have joined forces to put more pressure for the demarcation and titling of their land (Comissão Pró-Indio de São Paulo & IEPÉ). This is significant as indigenous people and quilombolas have not maintained a continuum dialogue in the past, despite being neighbours and facing the same threats.

The first community to receive its land title was Boa Vista in 1995, with the help of ARQMO which was created in 1989 to support communities in their struggle to acquire their right to land. The National Institution of Colonization and Agrarian Reform (INCRA) initiated the process to regularize the territory of Boa Vista with plans to implement a model of rural settlement, where each family would receive an individual plot of land. This was vehemently refused by ARQMO and the communities, who demanded a model of land title that would respect the traditional ways of living of the quilombola community in which they could access the whole territory of forest and river, and not just a small garden by their house, in order to maintain their traditional livelihood (J. F. Sauma, 2013). It was within this scenario that the concept of collective land was designed, and with it the need to create the 'land associations', which would be the institutions receiving the collective land title. The land titles were issued in the name of the 'Land Associations' Erepecuru and Trombetas, representing the communities located in these areas.

The acquisition of the land title is an important landmark in the history of the quilombolas of Oriximiná. For those who remember life before the guarantee of this

right, the legal title meant a recognition of their collective ownership of the land, which could now be managed according to their needs[34] (Interviewee 29, 2016; Interviewee 30, 2016; Interviewee 35, 2016), it facilitated access to public policies [35] (Interviewee 32, 2016; Interviewee 39, 2016) the land cannot not be sold[36], which brought a sense of security (Interviewee 36, 2016) and it meant the recognition of their quilombola identity (Interviewee 37, 2016). Ultimately, having the legal right over their territory gives them the possibility to manage their natural resources according to their traditional norms.

There is, however, one aspect of the legalization of their land that brought tension to the communities and reflects the complexities that exist in fully securing land rights. During the process of the land title a division was created between those who chose to have their land titled collectively, known locally as 'Coletivos' (collective) those chosing to remain as individual landowners, known as 'Individuais' (individuals). Most of the 'individuais' are not quilombolas but outsiders, often from other states, who arrived to work on small-scale mining operations during the 70s and ended up staying in the region. However, some of the 'individuais' are quilombolas and yet chose to have a private plot of land, becoming a settler in the region (J. F. Sauma, 2009).

For some 'coletivos', their quilombola relatives who chose to become 'individuais' were influenced by the greed of outsiders and lured into believing that to choose to be part of the collective land would also entail that other aspects of their life would be collective, such as their spouses. Certainly there was huge pressure from farmers and big landowners in the region who had an interest in individual land plots, as this would allow for land to be sold and exploited irrespective of quilombola customary norms. As mentioned previously, the nature of the quilombola title is collective, undivided, inalienable (cannot be sold/transferred) and imprescriptible (does not loose validity), respecting in this way the collective nature of this community and guaranteeing the rights of future generations to their land.

The collective nature of the lands titled allowed the communities to maintain traditional ways of managing their territory, where they have the right to access not

[34] Before the land title, they were under a system of dependency and patronage with the local trader that supposedly 'owned' the land.
[35] For instance, they had access to the INCRA house benefit programme, which provided material to build their houses with such as bricks instead of wood and leaves.
[36] The quilombola land has a particular legal status of being collective, undivided, imprescriptible and inalienable (cannot be sold).

only the land surrounding their houses, but also the lakes, rivers and forest which are part of their collective territory. The 'individuais', on the other hand, were given a small piece of land and do not have the right to access the collective territory of the quilombolas.

This restricted access to natural resources has been one of the sources of tension between 'individuais' and 'coletivos' as some 'individuais' started to use natural resources from areas belonging to the quilombola territory, not respecting the internal collective rules. As one community leader explained: 'Often the 'individuais' go against the 'coletivos'. There has been no union between us. Why? Because the 'individuais' only have a small piece of land. They have almost no land to secure their livelihood. They do not have any natural resources to exploit, such as wood or Brazil nuts. They don't have anywhere to extract that from. And we, the 'coletivos', we have it all. But what happens? When the season for the Brazil nuts starts, they (individuais) cut down the trees and go to collect Brazil nuts. On our land!' (Interviewee 30, 2016)

There is a general feeling that their collective territory has not been respected by the 'individuais', often causing conflict. There are 'individuais' who fish and hunt to sell in the city, unsustainably exploiting natural resources, which goes against the quilombola practice of only doing these activities for subsistence and with concern for conservation; there are large areas of forest being cleared for cattle grazing, against the tradition of only clearing small patches of land for subsistence agriculture, and there is disrespect for collective areas for extraction of Brazil nuts, ignoring traditional use of that land (Interviewee 30, 2016; Interviewee 31, 2016; Interviewee 35, 2016; Interviewee 36, 2016; Interviewee 39, 2016). Furthermore, some of the 'individuais' are facilitating the entrance of outsiders to the quilombola territory for fishing, hunting, and illegal small-scale mining (R. P. Ramos, 2016).

Another tension also related to territory management and the security of their tenure rights is the current situation with the logging company. The land associations of areas that have titled land (Erepecuru and Trombetas territories) signed a contract in 2011 with a company, 'Construtora Medeiros Ambiental Ltda.', to exploit timber from their territory. The communities got together in an assembly to vote for this project and signed a contract which stipulated a payment of R$ 3,000.00 per month (approximately £765.72 per month) to the families of the Erepecuru territory and R$ 1,804.43 per month (approximately £560.56 per month) to the families of the Trombetas territory, both for the duration of the 5 year contract (Comissão Pró-Indio

de São Paulo, 2016b).

The contract also established that the company would be responsible for management and execution of the forest management plan and the land associations would be responsible for supervising and monitoring their activities. Most importantly, the environmental license was given to the community land association who are therefore solely accountable for the project (Andrade, 2011). As a result, due to illegality in the logging activity, a fine was issued to the Land Association of the Erepecuru territory and not to the company itself. In 2015, there was an embargo of logging activities due to irregularities in timber exploitation (Comissão Pró-Indio de São Paulo, 2016b).

During my visit in 2016 to the quilombo, the situation with the logging company was even more present in conversation, and in contrast to my previous visits where some people favoured the activity, this time I heard a more collective voice against the company, its owner, the land association and the consequences of the logging activity. Certainly, the biggest complaint came from the fact they had not received the money agreed in the contract. Since 2011, each family received in total roughly the same amount they should have received monthly. The promise that they would be receiving a monthly resource from the timber exploitation was a key factor in convincing the population to accept logging in their territory. Thus, the failure to pay these families has been at the centre of frustration and disbelief in the project.

Another aspect is that the company's owner made many promises to the community, none of which were kept. According to the communities, he promised to expel the illegal mining from their territory, to improve the local school and health systems, to improve the infrastructure of many communities and create new jobs (Interviewee 29, 2016; Interviewee 30, 2016; Interviewee 39, 2016; Interviewee 40, 2016). In addition there is dissatisfaction with the coordinators of the Land Associations, who are seen as not doing enough to resolve the situation and in some cases there is suspicion of corruption underlining the relationship between the land association and the logging company. Furthermore, some people showed concerns that care has not been taken to avoid felling trees that are important to the community for economic and medicinal benefits, as agreed with the company (Interviewee 35, 2016; Interviewee 37, 2016; Interviewee 39, 2016; Interviewee 40, 2016).

There is a feeling of betrayal in the sense that many community members argued that they were not fully informed about the contract and the negotiation

process, they were fooled into believing they would receive a monthly payment, that all promises would become reality and that there has not been an accountable and transparent process since the signing of the contract.

Whereas previously the quilombolas' relationship with their territory was directly related to the maintenance of their livelihood and culture, now exploitation by third parties has brought money into the equation. The quilombola communities are faced with the challenge of understanding the consequences of putting a value to their land and how that will affect the structure of their society that has as its main pillar this same territory. As one of the local leaders explained:

> 'This (the logging company) is the worst thing that happened to us. It is because people delude themselves with money. And I do think that money is good, it helps a lot, but money is not everything. This logging company came and started working on the first plot and then it was all ok. But the second plot was different. What is going to happen now? There is already timber that has been taken down. They are going to have to finish the job then stop the activities. (…) This was the worst thing that happened, do you know why? Because they make a lot of money and leave behind all the destruction with us. And it is not just the destruction of the forest that I am talking about, but the destruction of the community itself. Because money starts to divide people. One fights with the other, one wants to get more than the other' (Interviewee 37, 2016).

7.2.1- The Challenges in Securing Land Rights

The communities studied in this research are located in two titled lands (Erepecuru and Trombetas), and it is expected that they have full control of their territories and natural resources. Nevertheless, conflict with the 'individuais' and the current situation with the logging company show that when discussing land tenure, the securement of all rights is not straightforward.

The structure of land rights proposed by Ostrom and Schlager (1992) helps to understand how the land title can ensure a series of property rights. From looking at the dynamic of the quilombola communities it is possible to see that the operational

property rights of access and withdrawal, and the collective choice property rights of management, exclusion and alienation (Schlager & Ostrom, 1992) have different levels of fulfillment.

The right to access, which is understood as the right to enter a certain property, in this case to access the forest, rivers and lakes, has been secured through the acquirement of the land title as the quilombolas now have the ownership of their land. In the same way, they also have the right to withdrawal, meaning the right to get natural resources from their areas, either for subsistence, for medicinal purposes or for commerce. The right to access is the most basic tenure right followed by the possibility to use (withdrawal) the resources, which for communities dependent on the forest are key rights to guaranteeing their livelihood and diminishing their vulnerability (RRI, 2012).

The collective choice property rights, which involve participation in the 'definition of future rights to be exercised' (Schlager & Ostrom, 1992, p. 251), are also secured through the guarantee of the land title. The quilombolas of Oriximiná have the right to collective management of their territory, deciding on regulation and norms regarding their land. This means that they are able to maintain their traditional ways of managing their territory. Through the same logic they are also able to exclude outsiders from their territory, establishing who is allowed to enter their land and for what purpose. Finally, they have the right to transfer certain rights to other entities (right to alienate), although in the case of the quilombolas it should be remembered that their land is inalienable, which guarantees that the right to land tenure is passed on through generations. They can, however, alienate their right to withdrawal of timber, by transferring this right (temporarily) to an outside logging company.

We can thus see that by receiving the title to their land, these communities have managed to fulfill a series of rights related to land tenure. However, their current situation demonstrates that it is necessary to look into the dynamics of the territory in order to asess how these rights have been protected and fulfilled.

The Oriximiná communities of the Erepecuru and Trombetas areas have alienated their right to exploit wood from parts of the forest to the logging company. They are within their rights as owners of the land to do so, providing they follow their internal procedure of decision-making. In this case, the decision to have the logging company in these areas was decided during a general assembly and through voting. By agreeing to have the logging company in their territory, there was an automatic

limitation to their access to areas of the forest designated for logging activities and also restricted withdrawal of natural resources from these areas.

This right of alienation is seen as contentious because for many indigenous and traditional communities, alienating some of their rights, especially land, goes against the very nature of their traditional management of territory. Most importantly, in the process of alienating a community's right consideration needs to be given to the power difference between communities and external actors. When negotiating the alienation of rights such as access and withdrawal for instance, communities must access all relevant information, be able to evaluate the value of the resources in question, understand the legal framework discussed and have the financial ability to look for independent economic and environmental impact assessment (RRI, 2012) .

The recent experience with the logging company in the Oriximiná quilombo is a good example of how power asymmetry in a negotiation process can increase the vulnerability of traditional communities. While it is not the intention of this research to do deep analysis on the reasons why the logging agreement is generating so much tension in the territory, it is clear from the frustration of the quilombolas that their rights have been disrespected on many levels. From the moment the community signed the contract with the logging company, concerns by outside partners were voiced regarding how ill-informed the communities were about the decision taken, whether they had the correct tools to monitor the activities of the company and whether enough legal and technical support was provided during the negotiation of the contract (Andrade, 2011; Comissão Pró-Indio de São Paulo, 2016b). There were important questions that were not fully considered, such as what would be the costs involved in monitoring these activities, whose responsibility it would be to pay these costs and how to ensure that communities would be able to maintain an independent assessment of the situation.

The failure to receive the agreed payment, the concerns for the conservation of certain tree species of special value to the community and the worries about the environmental consequences of cutting down the trees, are clear signs that there has been disrespect for the rights of the quilombolas. As much as the right to extract timber was alienated to the logging company, there are still rules that needed to be followed and accountability processes must have been in place in order to guarantee that the quilombola communities, who are owners of the territory, had full control of these activities.

Another aspect of the local context that highlights the fragility of the quilombolas' tenure rights is the relationship between the 'Coletivos' and the 'Individuais'. Whereas the 'Coletivos' have the right to manage their territory according to their own rules and exclude outsiders from their area, the 'Individuais' have been consistently disrespecting this right. It is important that the community is able to enforce this exclusion or that there are institutions such as the State or the judiciary that can guarantee that this right is upheld (RRI, 2012).

From the accounts heard in the quilombola communities, it is not always possible or even desired to get confrontational with the 'Individuais', either because they are relatives and therefore considered quilombolas or because communities want to avoid violence. One community member explained: 'They don't ask us permission (to access the land). Some of our relatives are involved in this. (…) Now they want to collect Brazil nuts from our land. So, in order not to get into a fight, we let it go. In order to avoid conflict, we let them through. But it is not right. They are the ones that did not want it (to be a 'Coletivo') ' (Interviewee 35, 2016). As described by Sauma (2013), during the nut harvest of 2009 the relationship between the 'Coletivos' and one specific 'Individual' got so tense that due to fear of an imminent violent encounter, communities avoided the traditional collection of Brazil nuts in the forest, considerably disturbing the customary management of their land and limiting their right to access part of their territory and withdraw the resources needed.

This discussion about tenure rights becomes more complex if we take into consideration the other territories of the quilombo of Oriximiná that do not yet have their land title. As presented in chapter 5, of the eight territories that make up the area, five are titled, one is partially titled and two are yet to be titled. These untitled areas overlap with the Biological Reserve, the National Forest and the State Forest, which has been a point of conflict in the negotiation of land ownership between the communities and the State. Additionally there is the possibility that mining activity will be expanded to areas used by the quilombolas, which is currently the biggest threat to these communities (Comissão Pró-Indio de São Paulo, 2016a, 2016d).

The communities located in untitled territories find themselves in a completely fragile and unstable situation, where they have no securement of the right to land, where access, withdrawal and management of natural resources, together with the possibility of excluding outsiders from their land is still denied as a right.

7.3- Linking Territory and Culture

The relationship that these communities have with their territory is more than just a matter of guaranteeing their livelihood, where they need to access forests and rivers to ensure their physical survival. The cosmology of the quilombolas of Oriximiná is directly linked with their landscape and is their behaviour as a society. Their traditions, knowledge and identity are intertwined in a network of meanings and behaviour, and the preservation of which depends on the protection of their territory and conservation of biodiversity.

In order to clarify this relationship between territory and culture/knowledge this section is going to look at three aspects of the quilombolas of Oriximiná's cosmology as well as their society: the myth of the *Cobras Grandes* (Big Snakes), their relationship with the 'mother of things' and the importance of the 'Sacaca*'* for the community's physical and spiritual wellbeing.

As explained by Sauma (2014), the myth of the Big Snakes is the story of their arrival in the Erepecuru River, where the presence of these invisible beings and their relationship with the quilombolas started to be shaped. This myth can be understood as a non-historical account of how the ancestors of the quilombolas inhabited these areas after escaping from plantation farms.

The myth tells the tale of two very big sibling snakes that inhabited the area where the quilombolas currently live. The male snake lived in the Erepecu lake located in the Trombetas river, and the female snake lived in the Erepecuru river, more specifically under the 'Barracão de Pedra'[37]. The Erepecuru snake became so big it could not move, depending on two caimans to feed her. According to the story, she did not allow navigation of that part of the river and anybody who tried would be eaten by her. The quilombolas' ancestors tried to go up this part of the river during their escape, but were stopped by the angry snake. They then opened a path through the forest, where they pulled up their canoes and would go around the 'Barracão de Pedra' to continue up the river towards the waterfall, where the 'waterfall–mother' gave them the protection needed against captivity. The brother of the Erepecuru snake was not happy that she would not allow people to navigate the rivers and kept trying to persuade her to change her mind. He eventually sent her a message asking her to

[37] Barracão de Pedra is a rock formation by the bank of the Erepecuru river (near the Espirito Santo Community) that forms a sort of cave during the dry season when the river goes down.

marry him, making the Erepecuru snake very angry. She decided to go all the way to the Erepecu lake to fight her brother. On her way, she transformed the landscape by going over land that joined rivers and lakes, creating pathways that are still used today as a shortcut to reach certain locations. According to the story, the battle between the two snakes lasted many days and in the end the Erepecu snake was left blind but the evil Erepecuru snake disappeared. Some believe she was killed by her brother, others believe she might still be hiding somewhere. After this episode, the Erepecuru river was free, allowing the quilombolas' ancestors up the river until they reached the Chuvisco Waterfall, whose 'mother' gave them protection against captivity.

The story has another interesting point because some say that the Erepecuru snake moved from the river not just because her brother sent her a message with the marriage proposal, but also because an indigenous 'pajé' (sorcerer) used his prayers to scare off the snake, the same way he opened up other spaces in the territory that were closed by the 'Encantados', such as lakes and forests, so the quilombolas could have access to them[38]. The 'Encantados' are invisible, powerful beings that live in the territory and can cause distress in the community if certain rules are not respected.

The myth of the big snakes shows how the territory had been inhabited by other beings before the quilombolas' arrival and how they played a role in allowing the quilombolas to stay in that land. More importantly, as we will see, these communities still maintain a relationship with these invisible beings in order to keep stability in their society and territory.

The 'Barracão de Pedra' is a very visible stone structure along the river and a strong reminder of the snake and their ancestors' arrival in that land. It is a place inhabited by an 'Encantado' and therefore a place that must be respected. For instance, it is advisable not to remove or change the order of the stones from the stone circle that is formed in front of the 'Barracão'. If you do so, the 'Encantado' will put the stone back the next day and you may suffer the 'Encantado's influence, which might come as an inability to sleep (R. P. Ramos, 2016). Apart from the myth of the arrival, the 'Barracão' is also known for being the place where their ancestors used to have their patron saint festivities, during the time when they were descending the rivers to form communities closer to the city (Interviewee 29, 2016).

The fact that a 'pajé' was partially responsible for the movement of the

[38] The description of the myth here is based on the myth found in (J. F. Sauma, 2014)

Erepecuru snake is relevant in their contemporary history. It is important to note that 'pajé' is the word used to describe an indigenous healer/sorcerer and not the quilombola equivalent, who are known as 'sacaca'. Hence, there is a symbolic importance to the fact that an indigenous person was responsible for their safe stay in the territory. The presence of indigenous people in that territory is reaffirmed by the quilombolas' acknowledgement that indigenous people were the previous owners of the land they currently inhabit and that their ancestors could only survive in the forest because indigenous people taught them how to survive by hunting and fishing (Interviewee 41, 2016; J. F. Sauma, 2013). This relationship between the quilombolas and indigenous people has been recently revived during their struggle for land titles. Both communities are fighting for their right to land ownership recognition and the partnering of these two societies has created a stronger demand for their land rights (Comissão Pró-Indio de São Paulo & IEPÉ).

The myth also brings up two other important figures in the belief system of the quilombolas from Oriximiná: the 'Encantados' and the 'mother of things'. The concept of 'Encantados' is not particular to these specific quilombola communities and can be found in other societies, such as the one found in the Lower Amazon described in the classic book *Santos e Visagens* (Galvão, 1955) and the study on the Salgado region in the north-east of Pará state (Maués, 2005).

For the quilombolas of Oriximiná, all invisible beings and forces are known as 'encantados' which can be the 'mothers', the 'beasts' or the 'owners' of places. These invisibles forces play different roles in protecting the territory and its people but they can also bring distress and illness if they are disrespected. The 'encantados' can be a danger as they can attract people to their enchanted realm and it is only a 'sacaca' or a 'benzedeiro' (prayer healer) that is able to bring this person back to the real world (Félix, 2009, 2011).

Within the world of 'encantados', of particular importance to the territorial relationship of the quilombolas is the idea of 'mother'. Everything has a mother of its own, thus there is the waterfall-mother, the prey-mother, the river-mother and every person also has a 'mother of the body', a mother within themselves (Teixeira, 2006) . The big snakes myth revealed how by reaching the waterfall, its 'mother' gave protection to the quilombolas' ancestors who were searching for a safe place to build their new homes. Historical accounts corroborate the idea of the waterfall protecting the black slaves when it describes how the first quilombola communities were built

above the waterfall, which acted as a natural barrier against captivity. It was only when they felt safer, after the abolition of slavery, that they started to descend the rivers in order to build their communities closer to the city, in the locations in which they currently live (Acevedo & Castro, 1998a; Funes, 2015).

There is a need to respect the 'mother' of each living thing in order to maintain happiness and peace in the community. There are many ways to show respect to the 'mother', such as: a person should only hunt what is needed and should have respect for their prey; stones should not be removed from waterfalls, permission must be asked for to drink water from some places and shouting should be avoided in some specific locations. By not adhering to the rules, you disrespect the 'mothers' of things and as a consequence the community will suffer: there might be a hunting accident, a child might become ill or someone might lose their mind or be prone to too much drinking (R. P. Ramos, 2016). It might be an individual that disrespects the 'mother of things' but the consequences will be felt by the whole community, disturbing the collective wellbeing.

In this constant engagement between community and 'encantados', the 'sacaca' has a major role to play. As the most powerful healer of the quilombolas, the 'sacaca' uses plants and prayers to cure but also has an open channel with the 'encantados' and their enchanted world. Unlike other healers from the communities, who have learned about medicinal plants with their parents and grandparents, the 'sacaca' is born with a gift and learns his skills with the 'encantados' (J. F. Sauma, 2013; Teixeira, 2006).

In the history of the quilombo of Oriximiná there were two very powerful 'sacacas' who were very important to maintaining the wellbeing of communities: Mr. Balduíno and Mr. Chico Melo, who was his successor. Balduíno was known for his great ability to cure diseases; for having the gift of omnipresence, being seen in different locations at the same time; and for being able to foresee the future. One of his most famous predictions was that a city full of lights would be built in the middle of the forest (O'Dwyer, 2002). The quilombolas believe that he was referring to the city of Porto do Trombetas, which was built by the mining company and is a city that, unlike the communities, has 24 hour electricity. According to Daniel Souza, one of the leaders of the quilombolas who knew the sacaca personally, Balduíno used to say that the quilombolas would see many people entering their territory and taking away their wealth. He would look into his magic mirror and say that iron would fluctuate in the river Trombetas, which according to Daniel is a reference to the many large boats

that today navigate the river transporting mining products. According to him, the sacaca Balduíno used to say: 'I see an illuminated forest where white people own everything, and I don't see black people becoming rich or getting anything out of this. I only see white people' (Souza, 2016).

The 'sacaca' Chico Melo was also a very powerful healer who learned through dreams about his gift and the cures to many different illnesses and diseases. Chico Melo used to explain that he was taken to a hospital that was at the bottom of the river, where fishes showed him how plants could cure each type of disease. From that moment he started to produce natural remedies using local plants to cure people (Teixeira, 2006).

Both 'sacacas' were in constant contact with the 'encantados' and their world, being often the mediator between the communities and these invisibles beings. On my first visit to the quilombo in 2012 there was concern about the lack of 'sacacas' in their territory as there have been none since the death of Chico Melo in 1995. The 'sacaca' is a very powerful healer, but more importantly he plays an essential role in maintaining the peaceful life of the community by constantly engaging with the invisible world. The presence of a 'sacaca' in the quilombo brings a sense of security, where the communities know there is someone with a gift and knowledge to cure people with the assistance of 'encantados', and who can help communities maintain equilibrium between the two worlds.

The uncertainty regarding the lack of a 'sacaca' has changed, as in the past couple of years the youngest son of Chico Melo, called Clovis, accepted that he has the gift to be a 'sacaca'. Clovis's acceptance to become a 'sacaca' shows how the territory, with its forest and rivers, is a determinant for a person to develop this gift. Since he was a child Clovis showed signs that he was the chosen one, but never accepted this gift and left the community to live and study in the city. For many years he was absent but said he could no longer ignore the messages in his dreams, and decided to move back to the community to be able to learn with the 'Encantados' about his gift (R. P. Ramos, 2016). As the community leader Daniel Souza explained, a 'sacaca' cannot live in the city, he must live by nature as his knowledge derives from there (Souza, 2016).

The need for proximity with nature, as exemplified with the 'sacaca' and the 'encantados', as well as acknowledgement of the direct link between their territory, cosmology and culture beyond a merely physical means of survival is fundamental to

understanding the importance of land rights for these communities

The quilombolas of Oriximiná have a strong bond with their territory, forest and rivers. This relationship is clear in their accounts of how difficult it is to live in the city and how life is so much better in the community because of proximity with nature (Interviewee 30, 2016; Interviewee 33, 2016; Interviewee 36, 2016; Interviewee 37, 2016; Interviewee 39, 2016). It also appears in their belief that outsiders perceive them as 'lazy' because, unlike small farmers and settlers that tend to clear out areas for agriculture or pasture, the quilombola communities are surrounded by forest where they can easily access their medicine, food and wood. Some believe that this comes from their ancestors' fears of being caught and therefore keeping the forest was also a way of hiding and protect themselves (Interviewee 33, 2016). Regardless of where this comes from, it is clear that these communities maintain a deep and intrinsic relationship with their territory and resources. As showed in the study by Andrade (2011), the quilombola territories maintain large areas of preserved forest and are a barrier for deforestation coming from the city of Oriximiná (Andrade, 2011).

Thus, it is important to acknowledge the type of relationship that traditional and indigenous communities maintain with their territory, one that is not just about their physical survival but also involves a more holistic approach to their existence. The description of traditional communities, found in decree 6040, in a way reflects that relationship when it says that 'traditional communities are culturally differentiated groups that identify themselves as such and that possess their own forms of social organization, that occupy territories and natural resources as a condition of their cultural, social, ancestral, economic, and religious reproduction, using knowledge, innovations, and practices generated and passed on through tradition' (Presidência da República, 2007). Hence, it is important to recognize that by protecting their territory and recognizing their right to land is also one way to protect their right to maintain their culture and traditional norms.

If we look at the 'Scale of Rights' table, it is important to ensure that the right to culture is respected and fulfilled to the utmost as it plays an essential role in the negotiation and outcome of the benefit-sharing agreement. For the discussion of ABS, the securement of the right of culture has a strong role because of the clear link between knowledge of plants, culture and land. By ensuring that this culture is

respected and preserved and that they have ownership of their land, one is also ensuring that the knowledge of plants and medicines is kept safe and, indirectly, contributing to the conservation of the collective territory, as the 'sacaca', the 'encantados' and the 'mothers' all play a vital role in maintaining this culture alive. The moment these communities lose this connection with the land, forest and their spiritual beliefs they also lose the connection with the plants and knowledge they use for curing.

7.4- Land and Cultural Rights for Equitable and Just Benefit-Sharing.

The collective nature of the quilombola society is reflected in the way they manage and use their territory, where they depend on the collective forests, lakes and rivers to access their food, medicine and timber. At a more localized level, their collectivity can be seen in their social relations such as the 'puxiruns' and the sharing of food between households.

On another level, the communities are in constant engagement with the invisible beings and forces that inhabit their land. With this in mind, the quilombolas of Oriximiná developed a very particular relationship with their territory, where there is respect for animals, rivers, forests, waterfalls, and with oneself, as every living thing is looked after by a 'mother'. By having a 'sacaca' that can mediate this relationship with the 'encantados' and act as a powerful healer, they are able to maintain a peaceful and healthy society.

As identified in the scenario analysis presented in chapter 3, the right to land and the right to culture must be considered as components of the rights-based approach to achieve a fair and equitable benefit-sharing. The table containing a scale of rights (step 2) that brings elements of the procedural justice, showed how the more you respect and fulfill a specific right, the more you increase the chances of having a benefit-sharing agreement that is equal and just. The table also showed that the guarantee of rights should be accompanied by the strengthening of traditional knowledge and customary norms.

If we look again at the Depths of Rights table, we will see that for land and cultural rights there are four dimensions that appear to be particularly relevant: (a) land security, (b) costs, (c) accountability/transparency and (d) traditional norms.

(a) Land Security

Dimensions	Questions to be asked for the final analysis
Land security	- Do communities have actual control over their territory and resources? (i.e. do they have control over who enters their territory?) - Do communities have the necessary skills to lease the land to third parties and still guarantee the sustainable exploitation of their land?

In the dimension 'land security' the main question is whether communities do have the full control of their territory. The analysis of the quilombo of Oriximiná shows how having ownership of their land does not automatically guarantee that communities can retain control of their territory and resources. It is undeniable that the acquisition of the land title by these communities is the most important legal assurance that they are the rightful owners of that territory and as such they can manage resources according to what they believe suits them best.

However, it is always important to understand the different contexts in which communities are inserted to verify whether they have real control of their territory. The situation with the 'individuais' shows that the 'coletivos' are constantly engaging in a battle to ensure full control of their land, where access, withdrawal and management of resources is only for those who are owners of the collective land. When the 'individuais' do not respect the territorial communal customary rules of the quilombolas, they are threatening the collective nature of this population that is fundamental to their identity and the maintenance of their rights.

For the access of their genetic resources and traditional knowledge, having land security is essential to the bioprospector because it guarantees that the communities have control over their territory and natural resources, which means in theory the absence of territorial conflict. The collective nature of their land title is an assurance, to an extent, that their traditional livelihood has been maintained in the process, which for a bioprospecting activity can be important especially if there is an interest in accessing traditional knowledge, as happened in this case study.

However, the tensions and conflicts with 'individuais' and the logging company, as well as other territorial threats such as mining expansion can cause disruption in the process of access of biodiversity and traditional knowledge. For bioprospecting activities, land tenure is one of the guarantees that the negotiation is happening with the legally recognized owners of the land, that there is no conflict over access to natural resources and that their traditional knowledge has been protected.

In the case study of the quilombo of Oriximiná, the access did happen in territories with titled land. However, there are still communities that have not yet received their land title, and the benefit-sharing contract was signed between the University and the ARQMO, an association that represents all quilombola communities. As discussed in the previous chapter, there are a variety of benefit-sharing scenarios that have not been considered, one of which is the fact that access happened in a handful of communities, while other communities most likely share the same knowledge, have the same genetic resources in their territory (titled or not), and are represented by the association who has signed the ABS contract. Although this is still exploratory due to the stage of the access, it is important to consider how potential benefit-sharing would occur in the territory in this situation and what consequences that might have.

(b) Costs

Dimensions	**Questions to be asked for the final analysis**
Costs	- Are there any costs attached to the fulfilment of this right? - Whose actors are responsible for these costs? - Could this be a factor that influences the respect, support or fulfilment of a certain right? *Costs do not necessarily mean monetary costs, and could involve non-monetary costs such as the time an individual or group spend in ensuring a right is guaranteed.

A report on the economic costs of land tenure (E. Gray et al., 2015) highlight three possible costs associated with establishing and maintaining secure community forest tenure: (i) costs related to the changes needed in legislative or regulatory norms to support community land tenure, (ii) community costs, which are associated to the investment needed to locally secure the land through identification, demarcation, management plans, etc., (iii) monitoring costs to ensure that right to land security is respected, (iv) opportunity costs from alternative land use. In the case of the quilombo of Oriximiná, looking specifically at the communities that are the focus of the ABS, the current most visible costs are associated with monitoring their land in order to ensure the full control of territory and resources. These costs can be seen as monetary and non-monetary. Monetary costs appear in their need to have the right tools and mechanisms to monitor their territory, for instance, by having adequate boats and enough fuel to visit communities and monitor the activities of the logging company and any other external threat to their territory. Non-monetary costs can be seen in social costs associated with the tension that exists with the 'individuais' or the need to be trained and capacitated to monitor activities in their territory (i.e. extraction of wood). In both cases, the burden is with the communities.

It is relevant to point out, however, that for the untitled communities of the quilombo, there are still the social and economic costs of fighting for their land security, through campaigns, protests, mobilization and lobbying. It is important to remember that historically in Brazil the fight for land is one of the main causes of rural violence, having a great human cost to these communities. The table below shows the number of land conflicts and related murders in Brazil from 2008 to 2017 (CPT Nacional, 2017).

Table 6: Land Conflict in Brazil

	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Number of conflict occurrence*	459	528	638	805	816	763	793	771	1079	989
Murders	27	25	30	29	34	29	36	47	58	70

Source: CPT Nacional, 2017

* Conflict occurrences are evictions, expulsions and/or destroyed goods.

It is interesting to look at the social categories that were expelled from their territory (or suffered attempts to be expelled) in 2017: 69% were traditional communities (which include quilombolas, indigenous, riverines, etc.), the remaining 31% were landless people and settlers (CPT Nacional, 2017). Certainly, land conflict has a great cost to these communities.

For an ABS, it is important to bear in mind the costs (monetary and non-monetary) of land security because of the direct link between land, culture (traditional knowledge) and the conservation of biodiversity. Although cases of access, such as the one in the quilombola of Oriximiná, do not focus on the securement and ownership of the territories they are accessing genetic resources from, they must be aware of the many consequences that an invalid land title can generate.

(c) Accountability and Transparency

Dimensions	**Questions to be asked for the final analysis**
Accountability and transparency	- Are there any independent mechanisms in place for conflict resolution? - Are there internal and external mechanisms that ensure transparency and accountability of the processes that are being put in place?

Considering the tensions existing in their territory (such as the threat of mining expansion, hydroelectric dams, logging activity and the risk of losing control over their traditional land) it is essential to have institutions that are accountable to the community regarding the development of these projects and whether they are respecting acquired rights such as land tenure and culture.

For the community association to fulfill this role they require appropriate training, resources and relevant information about the project before being capable of such a task. Looking specifically at the Oriximiná quilombo, the experience with the logging company highlighted the need to have local associations able to oversee the activities of external actors in their territory in order to guarantee the control of their

land.

The same applies to the access of genetic resources and traditional knowledge. Although consent was granted by the ARQMO for the access of their biodiversity, the association was not able to oversee the process ensuring transparency and accountability. This was (and still is) left to a large extent to the University researchers who give feedback on the development of the project whenever they return to the territory, which happens when there is a new phase of the project. As mentioned, the importance of this fairly constant return to the territory by the researchers should be acknowledged, as it gives the community the assurance that the project is ongoing and they have not been forgotten (as with other projects). Nevertheless, it is essential that the community is able to control what happens in their territory, ensuring that external actors are accountable and transparent in their activities.

(c) Traditional Norms

Dimensions	**Questions to be asked for the final analysis**
Traditional norms	- Are all rights being discussed, considered and fulfilled according to customary and traditional norms?

Another relevant dimension is that of 'traditional norms' and whether the rights considered respect customary local norms. The recognition and preservation of traditional norms is much more difficult to identify and is therefore challenging constantly respect through the ABS process. With the right to land security it should be acknowledged that national legislation has respected the collective nature of their traditional territory by turning the quilombola lands into imprescriptible, inalienable and undivided territories. However, as discussed, the maintenance of traditional management of land and resources depends on other factors that need to be accounted for, such as the 'individuais', and external threats, such as the logging enterprise.

In addition, it is fundamental to remember that there is a direct link between land security and the protection of local culture. As we saw, the quilombola's cultural and spiritual identity is intertwined with the preservation and use of their collective

territory. When we look at the cultural rights of the quilombolas, where their belief and health systems are directly associated with their land, we bring to the discussion more clearly the idea of cognitive justice that appears as an important aspect of the equity and fairness of the benefit- sharing. Through this view, different knowledge systems are accepted as valid and equal, and therefore must be considered in all negotiations that might affect the livelihood of people (Leach & Scoones, 2005; Visvanathan, 2005). As such, the belief system of the quilombolas as well as their traditional knowledge must be considered in any decision-making process and must carry the same weight as other types of knowledge and practices.

It is important to point out that the access of the genetic resources and traditional knowledge of the quilombolas of Oriximiná considered some of the cultural and belief aspects of these communities when they raised the importance of the 'sacacas' and their traditional medicinal knowledge in the anthropological report. In evaluating the socio-cultural impact of the ABS project in that territory, the report pointed out how for many quilombolas and for the ARQMO, the ABS project was inspired by the traditional knowledge of medicines and also the curing system of the 'sacaca', and how that could be an interesting opportunity to turn their traditional knowledge into western medication with the potential to generate revenue for the communities (O'Dwyer, 2007).

However, despite the clear recognition of their culture and knowledge, the ABS project was not able to optimize the connection between their traditional knowledge and natural resources in order to guarantee they fully understood the meaning of using their traditional knowledge in an ABS project. As discussed in the previous chapter, the Oriximiná quilombola community was not able to decodify the epistemology of an ABS project into their local theories of knowledge (Visvanathan, 2005). This had a direct impact on their ability to negotiate with the University, as the community was not able to see their traditional norms and culture reflected in that negotiation. The result was that important issues were not considered in the process of signing the contract, among them an important question relating to recipients of the benefit-sharing. In other words, who has the right to receive the benefits arising from the access if we consider that the traditional knowledge accessed is owned by the whole territory and not just by a few communities? How might the understanding of the collectivity of their knowledge and their relationship with their territory have an effect on how they would have wanted the contract to be drafted? And, was there any

meaningful discussion about the meaning of commoditization of their knowledge, considering that medicines, illness and healing are intrinsically linked with spiritual beings and the 'encantados'?

7.5- Concluding Remarks

This ABS project in the Oriximiná quilombola territory has been happening for over ten years, and yet there is still considerable misinformation about what is exactly an access of genetic resources and traditional knowledge, the importance of the community's knowledge to the project, the consequences of an ABS contract and the value of the final product. A reflection of this was that on my second visit to the quilombo in 2013, the two ARQMO coordinators interviewed[39] did not know anything about the project or that a contract had been signed with the University (Interviewee 25, 2013). This certainly is a reflection of a problem of internal communication, but it also reflects the challenges posed when working with accessing traditional knowledge. Because of the difficulty in giving a value to knowledge, it is more challenging for communities to fully understand and therefore commit to the project.

The rights based approach analysis done in the Oriximina case study shows the many challenges of achieving fairness and equity in cases of access of genetic resources and benefit-sharing. By looking into the rights identified in this research (right to participation, right to information, right to consent, right to land, right to culture) and analysing them through the four-step guideline, it was possible to see that fairness and equity are not just achieved through the respect of national legislation and the signing of an ABS contract. It is essential to have a more holistic view of the process, identifying the many possible rights involved in an access in a traditional community, and acting in order to respect and fulfil these rights. The procedural justice that is concerned with the many levels of the process up until the signing of the contract and the cognitive justice that respects all sorts of knowledge are key to ensuring fairness and equity are more present in an ABS agreement.

In this process of looking into rights, one of the questions that arises is how to ensure that these rights are considered and in this way that communities are empowered to negotiate better terms in the access of their biodiversity and traditional

[39] They were new coordinators of the association.

knowledge. In an attempt to shed some light into these issues, the next chapter will look at the 'Bailique Community Protocol' as this unique experience has elements that ensured the fulfilment of rights and the empowerment of communities, and as such is a possible path to guaranteeing equity and fairness in an ABS process.

8- The Bailique Community Protocol - an Instrument of Community Empowerment and Fulfilment of Rights

The concept of the community protocol appears in the Nagoya Protocol as a potential local instrument that can guarantee the rights of indigenous and traditional communities in the access of genetic resources, traditional knowledge and benefit-sharing. This recognition by an international legal agreement has been essential to strengthening the role of community protocols, through which communities can "assert their rights to self-determination and improve their ability to engage with other stakeholders such as government agencies, researchers and project proponents. These stakeholders are consequently better able to see the community in its entirety, including the extent of their territories and natural resources, their bio-cultural values and customary laws relating to the management of natural resources, their challenges, and their visions of ways forward" (Bavikatte & Jonas, 2009, p. 10).

In Brazil, the first community protocol to be developed was the Bailique Community Protocol, which was finalized in 2014. Since then, the Bailique communities have been working to put their protocol into practice. The Bailique archipelago is located at the mouth of the Amazon river, in the Amapá state, Brazil, and is comprised of eight islands, seven of which are inhabited by approximately 7.618 people (Instituto Brasileiro de Geografia e Estatística -IBGE, 2010), which are distributed in 51 communities[40]. Bailique is about 180 km from the city of Macapá and can be reached only by boat, the journey lasting an average of 12 hours. On one side of the archipelago there is the Amazon River and on the other is the Atlantic Ocean, giving Bailique a unique landscape and biodiversity (Pompilio, 2009).

[40] This was the number given by the Bailique Community Council. However it is known that communities can be created with a certain facility and therefore this number can be different at times.

Map 6 :Bailique Archipelago

Source: Google Earth

Most of the communities do not have electricity, relying on diesel generators for basic needs such as refrigerators and light at night. There is no potable water, the river water used instead is often inappropriate for human consumption, and there is no suitable sewage system. The closest hospital is in the city of Macapá, although they have one small health centre in the main community called Vila Progresso, which is only able to assist the population with the most basic health support, often lacking life-saving medication such as snake antivenom. Hence, traditional medicine and traditional prayers are important to maintain the health of this population.

Education is also very precarious, with a limited number of schools working with higher education and difficulty finding teachers for all subjects. As often pointed out by the communities, not many teachers from urban areas want to live in a community in the middle of the forest. The result is that many young people end up having to move to Macapá to continue their studies. However, for many, moving to the city is not ideal as they depend on relatives to host them and they are not used to urban life, where violence and the reliance on money can affect their wellbeing (R. P. Ramos, 2013-2016).

The population of this archipelago is young as 56,05% is under 20 years old and only 8.5% is over 50 years old (M. P. d. Almeida, Soares, Lima, & Santos, 2013). Their main income comes from the extraction of acai berries and fishing, but they also work with small-scale agriculture, animal farming and handmade shipbuilding. In terms of local associations, there is the Bailique Community Council, the Fisherman's Association, the Bailique Traditional Communities Association (ACTB) and the newly created Cooperative of Bailique Producers (AmazonBai), these last two formed during the construction and discussion of their Protocol.

In May 2013, the Amazon Working Group (GTA)[41] initiated a project in the Bailique territory to develop the first community protocol in Brazil with a specific methodology that had the rights of communities as its foundation. Community protocols are internal rules created by the community which reflect their own traditional character, the manner in which the community relates both to itself and externally, and also define certain procedures, criteria, and tools for territorial management and the use of natural resources (Grupo de Trabalho Amazônico, 2014).

Different to the Oriximiná case study discussed previously, there has not been any official access of genetic resources and traditional knowledge[42] in the Bailique territory and there is no obvious external threat to this community such as from logging or mining activity. As explained by the coordinator of the project, Mr. Gomes, the construction of the Bailique Community Protocol was not a reaction to a specific threat but was a proactive measure to enhance the community's wellbeing (Gomes, 2017). As will be described in this chapter, the Bailique Community Protocol works with a wide range of issues, developing a holistic view of the territory and not focusing specifically on one area that might require special attention. This gives the methodology a unique structure, as the protocol becomes an instrument of territorial and natural resource management.

A Community Protocol is a codification of internal rules and customary norms and in this way becomes an instrument that is meant to empower traditional communities to have an equal dialogue with any external actor. Specifically relevant for this research, community protocols can be a tool for giving communities a better chance to have a process of access and benefit-sharing that is fair and equitable. The methodology

41 The GTA is a non-profit organization that represents more than 600 institutions in the Brazilian Amazon.

42 Although there has been no official access, there have been known cases of access of their genetic resources without respecting legal requirements, which can be understood as an act of biopiracy

developed to construct community protocols works with principles and norms found in the discourse on rights, and in this way creates a scenario where communities can fully participate, are well informed and empowered to challenge power inequalities.

The next sections will describe the methodology used to develop the Bailique Community Protocol, a process that started in May 2013 and finished in December 2014 with the final agreement of the protocol. This is fundamental because the process by which the Bailique communities constructed their protocol brings to light important issues related to the fulfilment of rights and empowerment of communities and these are important aspects for the discussion of equity and fairness in an ABS.

Despite being very descriptive in nature, these next sections will highlight how the series of rights that were discussed in the case study of the quilombo of Oriximiná (right to be consulted, right to participation, right to information, right to culture and right to land security) are handled differently during the construction of the protocol, allowing in this way for a more careful approach to these rights and to their different dimensions (as presented in the 4-step guideline). Through this view it will be possible to understand the potential role that community protocols have as a mechanism to facilitate the equity and fairness in an ABS agreement. Community protocols can be seen as one way to address the challenges outlined in the ABS case study of Oriximiná.

8.1- Free, Prior and Informed Consent: the First Step in the Construction of a Community Protocol

One of the strongest features of this methodology is that the community protocol is designed to be an instrument of empowerment, one that gives communities the opportunity to be the main actor of their own development. To this end, it is essential that it be a bottom-up process and that participation occurs at every stage. The right to participation and the right to be consulted are key in the process of constructing a protocol.

The first step in this construction is therefore the free, prior and informed consent (FPIC) of the communities to the project. Considering it is a community protocol, it is essential that the community in question agrees to starting the process in their territory. Furthermore, FPIC is supported by international legislation such as ILO 169, which recognizes this as the right of traditional and indigenous communities (International Labour Organization, 1989) which therefore must be respected.

Thus, in May 2013, 41 community leaders and representatives from the Bailique Community Council, the institution that represents the communities from the archipelago, met for a two-day workshop to understand what a community protocol was, how to construct one, and to decide whether it was something they would want to have developed in their territory.

During this meeting some basic concepts of the Convention of Biological Diversity, Nagoya Protocol and national legislation on ABS (MP 2186/16) were presented in order to explain the importance of a community protocol. The community leaders also looked at an international example of a community protocol to understand the extent of what such a document would entail. They also heard a case study of access to genetic resources and traditional knowledge in Brazil to understand some of the challenges and opportunities that this particular activity involves. Although community protocols are instruments that can be used in different scenarios, such as in community relationships with mining and extractive industries, it is clear that it plays an important role in cases of access of genetic resources and traditional knowledge, as showed in worldwide examples such as the Potato Park in Peru (Argumedo, 2012), the Bushbuckridge in South Africa (Sibuye, Uys, Cocchiaro, & Lorenzen, 2012) and the livestock keepers in Pakistan, India and Kenya (Kohler-Rollefson, Kakar, Mathias, Rathore, & Wanyama, 2012). All these international experiences highlighted how the construction of a community protocol helped communities to strengthen their customary norms, to protect their traditional knowledge and to recognize the link between genetic resources and local community.

The last part of the FPIC workshop aimed to help community leaders to visualize how current conceptual discussions could be translated to their local reality. In order to achieve that, they looked at different topics that could potentially become part of their protocol. The result was a discussion on the need to strengthen local associations, to improve the quality of natural resources management, how to reach new markets, the need for technical assistance and better access to public policies. Although these topics were not intended to be used directly in their protocol, they served as an indication of the areas the Bailique community needed to focus on.

After being informed about all details of the project, community leaders initiated a process of discussion and deliberation on whether they would give consent to the project. In order to avoid putting any pressure on the communities and at the same time respecting their internal decision making process, all external actors left the room so they could discuss the project without outside interference. After careful consideration, all forty-one

leaders voted to have the community protocol in their territory and agreed to give their support to the process (Comunidades do Bailique, 24/05/2013).

Free, prior and informed consent is an important step for ensuring that the community protocol is legitimate, but it also serves the purpose of raising local awareness about their right to be consulted about any project that might happen in their territory and that the process of consent should follow some minimum standards to be considered meaningful. This experience of getting their consent before the start of the project was constantly referred back to during the meetings organized to construct their community protocol. It became a point of reference about how projects should be introduced in their territory. However, as will be discussed later in this chapter, more care is needed when proposing a consultation process in order to guarantee an effective participation and understanding of the process.

8.2- The Development of a Community Protocol

After the project acquires the free, prior and informed consent of communities, it is possible to initiate the process of constructing the community protocol. The methodology developed for it is comprised of four workshops and two general meetings. These workshops covered (i) a social, environmental, cultural and economic analysis of their territory and communities; (ii) relevant national legislation, international treaties and public policies; (iii) access to genetic resources, traditional knowledge and benefit-sharing and (iv) risks and opportunities of the protocol (Roberta P Ramos, 2016).

Although each of these workshops has a central theme to be discussed, the content of which is entirely constructed by the community (Grupo de Trabalho Amazônico, 2014). The importance of this idea is that the methodology can be adapted to other traditional communities according to each reality. What is relevant to the Bailique community might not be necessarily true for other traditional or indigenous communities willing to develop their own protocol.

Nevertheless, a fundamental aspect of the process is related to how these workshops are constructed and how information is shared. This is the key to ensuring that the protocol becomes a mechanism of empowerment and that the rights of communities are fulfilled in the process.

8.2.1.Horizontal Participation

One of the problems identified in the ABS case study of Oriximiná and which is a reflection of the current structure of access in the country is the type and level of participation. Often local people are not involved in all aspects of the access, not having a say, for instance, on the content of the benefit-sharing agreement, and participation is focused on certain groups failing to be totally inclusive. The width and depth of participation is an important aspect when trying to achieve justice in ABS. The questions proposed in the four-step guideline on the dimension of participation highlight the necessity to carefully consider how participation is implemented. It is essential to consider issues of representativeness (gender, geography, age, etc.), appropriate spaces and respect for customary norms.

The methodology developed for constructing community protocols has a special concern for the participation of communities, hence the initial step of free, prior and informed consent. But once consent is given, it is necessary for all communities to be given the same chance of participation.

Considering this, the project verified all aspects of the community that could have an influence on their ability to participate and on the quality of their participation. It was a way to ensure that their right to participate was fulfilled in the process. Aspects considered were geographical distribution of communities, participation spaces, costs of participation, who is participating and tools to facilitate the dissemination and understanding of the information.

The communities in the Bailique territory are spread across seven islands, relying on boats for transport. Distances between communities can be as great as eight hours depending on the type of boat. Because of the river tide they need to leave at specific times to be able to navigate in deep waters, avoiding shallow waters and river banks. Furthermore, there are areas of the river that are extremely dangerous to navigate due to rough water, which can cause serious damage to boats and risk the lives of the crew. The population is completely dependent on the 'time of the river', having to always consider whether river waters are appropriate or not for navigation.

The choice of where meetings and workshops were to be held became an important aspect of the methodology to ensure optimum participation. Considering the geographical distribution of communities, the Bailique Community Council suggested that the territory would be divided into four areas according to the location of communities. All 51 communities were always invited to the workshops, however there were 34 communities

who were mostly present in the activities, and it was they who discussed and defined the content of the protocol.

Through this system of territorial division, each workshop that comprises the methodology was held in each of these four areas, allowing for neighbouring communities to get together in a nearby territory. In this way, travel times and use of diesel were kept low, facilitating the presence of the communities in the workshops. Because of geographical location each area has specific challenges and opportunities, making more sense to work by area when discussing the protocol. The two general meetings planned as part of the methodology were the moment where communities from the four areas would get together to discuss their protocol as a whole territory.

The division of the territory into areas was something that was relevant for the Bailique territory due to its size, however if the protocol were to be developed in a smaller area this division might not be necessary. What is important here, however, is awareness that the location where meetings happen can affect levels of participation. The workshops can be seen as 'invited spaces', according to Gaventa (2006), as they were meetings organized by the GTA network to discuss issues related to the community protocol. However, each area was formed of an average of ten communities and the workshops could happen in any of these communities. It was the responsibility of these communities to decide among themselves which community from their area would host the workshop and when it would take place. Although this seems a very simple procedure, it allows for a situation closer to the 'claimed spaces', where participation at different levels occurs, bringing a sense of ownership, legitimacy and power to decide on the details of the workshop. This is extremely important for more isolated communities. During the first workshop at 'area 2', local community residents holding this workshop were openly moved by the fact that the workshop was happening in their territory. They explained that it was very rare that something would come to their territory, and it is usually they who travel far to participate in events. It is true to say that most activities are focused in the main community of Bailique, located in area 4, because it has better infrastructure. The fact that 'area 2' was going to receive the four rounds of workshops contributed to building a sense of trust, legitimacy and belonging to the project. The division of the territory into four areas and the decision that each area would receive all four rounds of the workshops was essential to ensuring better participation of communities and enhancing their sense of commitment to the project.

There are other aspects of the workshops that were implemented in order to ensure more meaningful participation. Before the start of every workshop the communities would make a 'community agreement' where they would define the time of start and end of the workshop, time for lunch and coffee breaks, all according to the needs of each community member. So, for instance, if the leadership from a specific community had to leave a bit earlier in order to catch the right river tide, then they would discuss the possibility of having a shorter lunch break and finish the workshop earlier, allowing in this way all community members to participate. Despite this looking like a simple activity and one of very little relevance, it is nonetheless important because it signals to the community the need to be involved in all aspects of the project and creates a feeling of ownership and belonging to the whole process.

The participants of these workshops were usually the leaders of each community, chosen by them to represent their community needs. However, as pointed out previously participation should involve more than just community leaders. The methodology developed proposed the production of banners with key information related to each workshop. After each workshop, each community leader received an impermeable banner, which could be easily transported on boats without being damaged. It became, therefore, their responsibility to take the banner back to their community and share the information with everyone else. They were named the 'multipliers' as they had the responsibility to ensure that the information would be multiplied and understood by a larger number of people. This was an important exercise for ensuring that all information discussed during workshops would reach as many people as possible. It is worth noting that there was a conscious decision not to use powerpoint presentations in the workshops as information must remain accessible for everyone. The Bailique communities have no electricity and do not easily have access to this kind of technology, so banners became much more appropriate tool for disseminating information.

The major foundation of the methodology for constructing a community protocol is the so called 'consultation document', which was developed to support the optimum participation of communities in the process of constructing their protocol. Considering that a community protocol is the codification of customary norms in order to facilitate dialogue with external actors, it is important that it reflects the opinion of the majority of the community's members and not only their leaders. It is, nevertheless, a difficult exercise as each community sends their leadership to participate in the workshop, but it would be naïve to think that they always represent the view of the community as a whole. As

Lefebvre (1991) reminds us, power inequalities exist in all spaces of participation. Local politics and power struggles are also present at community level (Lefebvre, 1991). The 'consultation document' becomes then a tool that verifies how representative the leaders' views presented during the workshop are, trying to equalize local power divisions and giving voice to the largest number of people possible.

The content of 'consultation document' is primarily based on the discussions of the first workshop, which is comprised of a socio-environmental, cultural and economic analysis of the communities. This first workshop is a moment where communities look inwards in order to discuss their local rules and norms often found only in oral format. In this way, local leaders are responsible for explaining how these rules work in his/her community. This process is essential as this is the basis of their community protocol which in turn will reflect how communities organize themselves.

The 'consultation document' is the systematization of the answers given by these leaders to the questions or topics discussed during the workshop, which is then taken to the remaining community members to be discussed. For each answer given by the leaders there are the following questions: "Do you agree with this answer? Would you like to add something else? If you don't agree, why not?"

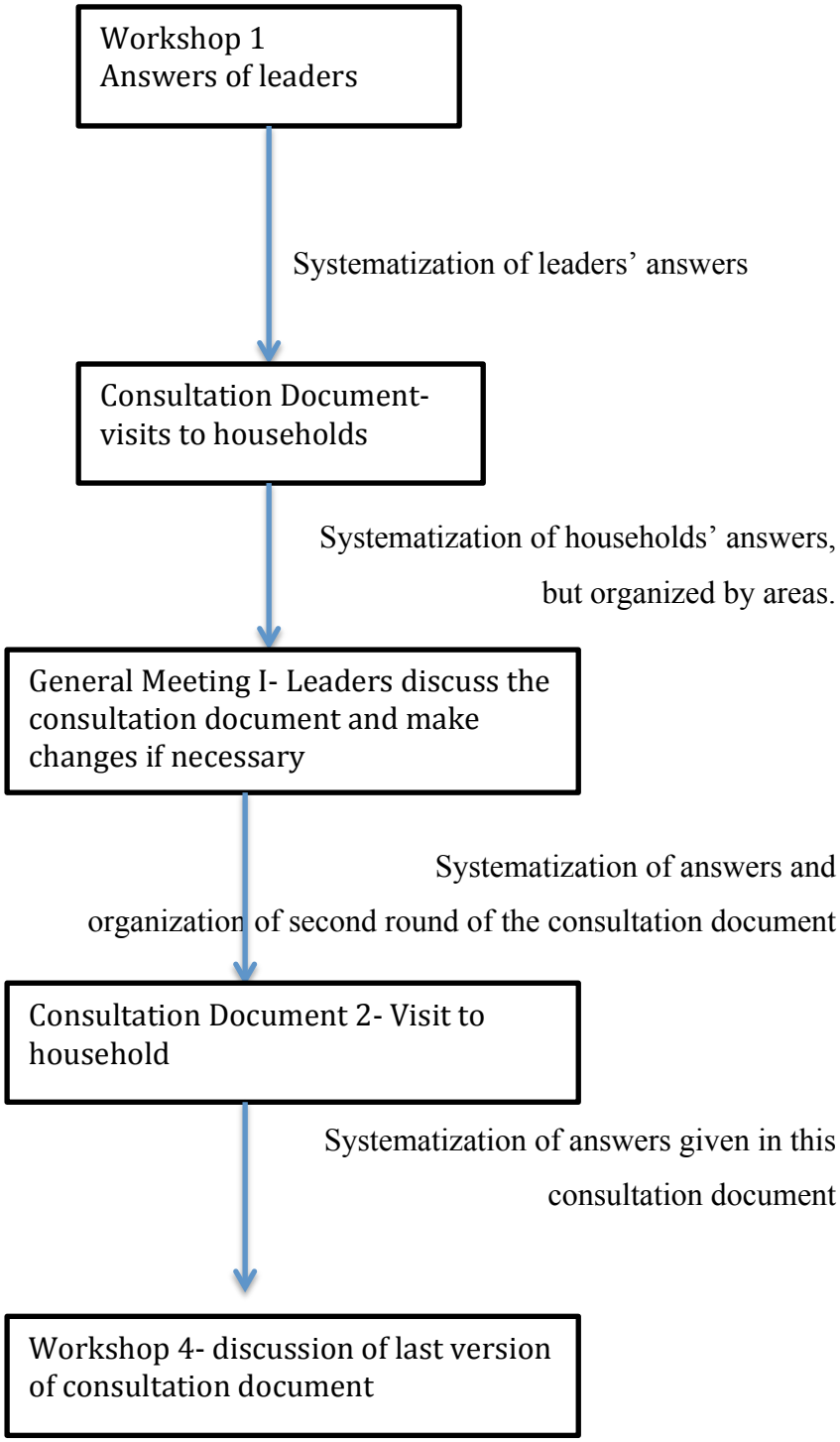
The construction of the 'consultation document' has four main moments. First the project team takes the leader's systematized answer to all households of the communities in order to get their view on what was discussed at the workshop and what kind of answers were given by their leaders. The main objective is to give equal opportunity for people to have a voice on their community protocol, including giving them the chance to decide whether they want to participate at all in this process. After visiting all households, the project team systematizes the answers given, this time not according to communities but according to territorial areas, merging the answers where possible to reflect all communities of one specific area.

The second moment of the 'consultation document' happens during the first general meeting, where these systematized answers are presented back to the community leaders of the four areas. They then have the chance to evaluate the answers given by the community and to agree/disagree with the suggestions given.

The third moment is to organize once more the answers of the leaders after they discuss the comments by households during the general meeting. These are again put in another 'consultation document' and returned to the communities to show them the results and give them another opportunity to contribute further to the document.

And finally, the last moment is when these contributions are again organized and presented during the 4th workshop, where the leaders of each area start to make agreements about the content of their protocol.

The scheme below is an illustration of the different stages of the 'consultation document'.



Although this system of consultation document is time consuming and also expensive for the project due to its many visits to the communities, it is key that this exchange happens in order to guarantee that a larger number of people participate in the construction of their community protocol.

The consultation document in the Bailique territory had the following results.

Table : Consultation Document in Bailique

Areas	**Number of Families**	**Consultation Document After Workshop 1**	**Consultation Document a General Assembly**
Area 1	105	43.8%	76.1%
Area 2	241	30.2%	76.7%
Area 3	320	38.7%	65.3%
Area 4	239	32.2%	77.8%
Total	**905**	**35.3%**	**72.9%**

Source: (Comunidades do Bailique, 2014, p. 9)

The 905 families are related to the 31 communities plus 2 localities[43] that were participants of the project. There are two main aspects that should be highlighted about this process. First, it is important to note the difference in percentage between the first visit of the consultation document and the second visit, showing a meaningful increase in the participation of local people. The first consultation document covered an average of 35.3% of households whereas the second covered 72.9%. The final number of over 70% of households consulted means that the Bailique Community Protocol is not a result of a sample of the population, but a result of the answers of the majority of the people, which was seen by the project as an important result in terms of local participation.

This increase can be explained by the creation of the 'support team' during the second round, which was composed of young local people who helped the project team to visit the households. These young people were trained to understand the process of the 'consultation document' in order to help gather all the information necessary, and their voluntary work was essential to covering a higher number of households.

The presence of these young people during the 'consultation document' contributed to enhancing the community's feeling of 'belonging' to the project, as they saw their own

[43] A locality is understood as locations that are not yet organized enough to be called a community. They may be too small (one or two families) or not yet have a community association.

younger generation engaged in a process to ensure that everyone had a voice. This was verified by informal conversations with community members and also testimonies from the young people themselves (R. P. Ramos, 2013-2016). While it is not possible to make a direct association between this collective feeling of belonging and the increased number of answers, it should be acknowledged that this was an important outcome of the process, and influenced the process in general.

A second aspect about the 'consultation document' is regarding three communities who were not involved. These three communities are the largest in the Bailique archipelago, totalling about 1600 inhabits and accordingly have characteristics closer to those of a small village rather than a traditional community (Comunidades do Bailique, 2014), where their sense of being collective and respecting customary norms are no longer present. Therefore, despite the presence of their leaders in the workshops, a decision was made not to involve them in the household visits, as the questions considered were not so close to their reality and the task of visiting a large number of houses turned out to be unfeasible. This raises an important question about the quality of participation regarding costs, the ability talk to a large group and the future consequences of excluding a certain group from the process, even if this group is different to the other communities.

The division of the territory into four areas, the meeting agreement, the impermeable material circulated, the consultation document and the creation of the support team are all important aspects of the methodology for ensuring that communities fulfil their right to participate in the project. Issues of timing, location and representativeness are items that have an influence on the level of participation (Cornwall, 2002) and therefore were taken into consideration in this methodology. Meaningful participation is not a simple task and has to challenge current power structures and bring change to local realities. The whole process of creating a community protocol is based on the need to empower the community.

The next section will show how each workshop is an important step to informing communities about their rights and how that can have a direct influence on the achievement of fair and equitable benefit-sharing. The methodology used for each workshop was designed to ensure that all information would be reflected into local reality, avoiding the common error of information-sharing happening at a very superficial level.

8.2.2- Workshop 1- A Social, Environmental, Political, Economic and Cultural Diagnosis of the Community

The discussion of collective rights present in the rights based approach to conservation focuses on the need to respect customary norms of land management and traditional access to natural resources (Colchester 2007). In Brazil, indigenous people and traditional communities have very rarely codified their norms and traditions, being mostly an oral activity that is passed from one generation to the other. In order to facilitate a dialogue with any external actor with a minimum respect for traditional rules, it is necessary that communities are able to translate these rules for outside eyes. One way of doing this is precisely through the community protocol, as it is an instrument that organizes internal rules to be presented to outsiders.

The first workshop that forms part of this methodology is an inward view of communities, giving them the chance to reflect on their way of life and how best to present that to external actors. This workshop is divided into nine steps that will allow for the systematization of their traditional local norms.

The first step of this workshop is to work with their identity and how they identify themselves as individuals. It needs to be a process of self-identification, considering that the idea of identity can change over time and one person might be identified with a series of roles such as fisherman, leader, father, healer, etc. The second step is related to the definition of what makes someone part of a community. The discussion of identity moves from the individual level to the community level. This is important because it introduces a more collective discussion on identity- what it means to be a part of their community. They look at the criteria that makes someone included or excluded from the community and discuss the values that form the basis of their collective identity, which is a reflection of how people understand their community and can influence how local people liaise with external actors. It should be clarified that this discussion is not yet about the Bailique community as a whole, but about the individual communities that form the Bailique archipelago.

Continuing with the exercise of looking inwards, the third step of this workshop is about rescuing the history of these localities, identifying the origins of the population and the traditions they hold collectively such as parties or religious activities. They also need to identify if their community has traditional knowledge holders such as healers, root doctors

or midwives, which is crucial to their understanding of the value of their traditional knowledge and the role it plays in ABS and in customary norms.

To close the discussion on identity, the next step takes the question to the macro level, asking what it means to be from the Bailique community. What defines local people as being part of this community? Is there a collective understanding of what it means to be from Bailique? With this, there is a closure of the discussion of community identity and the next step turns the focus onto local institutions and natural resource management.

In a situation of access to genetic resources and traditional knowledge, the community association is usually the first point of contact of the external actor. A strong and resilient association is important to ensuring a just process of access to the communities. As we saw in the case of the Oriximiná quilombo, the local association plays a fundamental role in ensuring that rights of communities are guaranteed in the process, such as the right to participate or the right to information.

Therefore, the fifth step focuses on understanding what those institutions are at the community level, which groups they are formed of and how accountable and transparent they are. Local people are asked to list the institutions present in their community, be it a church, school, or association and make an evaluation of how strong and developed they are. They also look at how many families are participating in these institutions and if this is a sufficient number, whether institutions are developing projects in the territory and how accountable they are to the general public. As described in the 4-step guideline, the dimension of accountability and transparency is a key aspect when discussing rights. Thus this exercise is a significant first move in the direction of thinking how accountability and transparency should be constant aspects in their local institutions.

The next step focuses on the decision-making process and people's level of involvement in the decisions. As seen in the Oriximiná case study, it is extremely important to understand what are the different areas of representation and how decisions are made, including having awareness about traditional ways of discussion and decision.

In order to establish this, the sixth step discusses how decisions are taken, by whom, if all groups of the community can get involved and whether they feel they have enough opportunities to be part of the decision-making process. This is an important exercise for communities to evaluate if they have equal rights in participating in the decision-making and whether their voices are heard. As highlighted previously, power inequalities exist at all levels, being also present within the community's structure and as such need to be challenged in order for a more just decision-making process.

The methodology then focuses on listing animals from the forest, livestock, plants and agriculture that are available to the communities during the year. The idea is to start a list of when certain species are hunted or fished, when livestock is reproducing, what time of the year they work in agriculture and when is it extractivist activity. This is an initial mapping of use of natural resources in the community and helps the discussion of what would constitute sustainable use of these resources.

Once this process of local institutions, decision-making and management of resources has been looked at, the last step is the activity of community mapping, where local people are asked to draw a map of their community, identifying its borders, which and where are the natural resources, how these resources are used, what is the ownership status of their territory and whether there is private and collective land in their area. These maps are not only of built community land with houses and churches, but also of areas they use to access natural resources, such as forested areas and rivers.

For the Bailique communities this activity was extremely important as it provided a visual understanding of where the natural resources were and also threats to land security. Land tenure is often not given much importance in the discussion of access and benefit-sharing. However, as in the quilombola case study, land security is key in the discussion of biodiversity conservation and protection of culture, having a direct impact on the management of natural resources and thus on the access of genetic resources and traditional knowledge.

The community maps produced during this first workshop showed that the Bailique communities have a very small collective area and are surrounded by large private lands or large buffalo farms, which are a threat to their traditional ways of living and management of natural resources.

This finding resulted in an added focus to their community protocol, one that was not identified at the beginning of the project. Despite the initial view that the Bailique archipelago had no clear land conflict, the community maps showed that there are indeed land tensions that must be addressed in order to secure these communities with the right to access and manage the natural resources found in their territory and essential to their survival. Taking into consideration that these communities are considered traditional, they have the right to maintain their traditional way of living and their traditional management of resources. This land instability has generated a situation where farmers can threaten communities, such as in the case of the *Vila Equador* community, who had their acai plantation burnt down by the neighbouring farmer who claims that part of this community

is on his private land. There are also accounts of people being told not to fish in certain parts of the river as they are 'privately owned' by a farmer, as well as the constant threat from buffalo farming that has been damaging river beds, with negative impact on fish reproduction.

For the Bailique communities, the drawing of maps was important as the right to land security became one of the focuses of the process. The maps were the basis of an investigation into the situation of land titles in Bailique led by the Federal Prosecutor's Office in partnership with the Bailique community and the GTA network. This investigation uncovered that invalid land titles were issued to the communities, often through a corrupt and abusive system. The Federal Prosecutor's Office has made a legal recommendation to the federal and state institutions responsible for land tenure in the country to acknowledge that there has been a clear breach of land rights in Bailique and to resolve this issue as soon as possible (Ministério Público Federal, 2015).

It is interesting to note how the Public Prosecutor used several national and international laws to base his argument on the right of this population to land, setting an example of how a rights-based approach can be an effective tool in ensuring justice in any process. The legal arguments in the recommendation are found in the Universal Declaration of Cultural Diversity (article 4), in the text of the Convention on Biological Diversity (article 8 j), Convention ILO 169 (article 14), the National Policy on Sustainable Development of Indigenous People and Traditional Communities, and the many regulations issued by national institutions that work with land tenure such as the Federal Heritage Registry (SPU) and the National Institute of Colonization and Agrarian Reform (INCRA)[44]. These different laws recognize that the realization of human rights in a multi-ethnic context presupposes the acknowledgement and the guarantee of land rights that are essential for the cultural and physical survival of communities identified as different from the majority of the population, in other words, the marginalized part of society. Also, there is the recognition that traditional land has more than just an economic function as they are essential for defining the collective identity of indigenous and traditional communities (Ministério Público Federal, 2015).

It is interesting to see that the recommendation highlights that the legal process of land regularization starts with the recognition of the rights of these communities to their

[44] In Portuguese: Federal Heritage Registry -Secretaria do Patrimônio da União (SPU). National Institute of Colonization and Agrarian Reform- Instituto Nacional de Colonização e Reforma Agrária (INCRA)

traditional collective land, followed by the identification of public land, and only then can there be a discussion about private property. This brings up the importance of the discussion about governance of common property resources and how that can influence natural resource management such as presented by Ostrom (1990) and the collective choice framework of Hall (Hall, 1997b). In a situation of collective ownership of land, communities need to find ways of managing resources sustainably as they depend on the environment for their survival. Specifically in the case of Bailique, the threat of large farms in their surrounding territory along with the legal insecurity of their invalid land titles can be seen as a common threat that can generate a collective action for the conservation of the environment.

The decision of the Bailique community to pursue their right to land regularization is an extremely important result of the process of constructing their community protocol. The communities are aware that this will be a long term process, nevertheless they are also conscious of the fact that the securement of their right to land will guarantee that their traditional ways of living are protected. As looked at in the previous chapter, for the discussion of ABS this is highly relevant as there is a direct association between land protection and the conservation of traditional knowledge. In addition to this, land tenure instability can jeopardize the process of consent and the benefit-sharing agreement by creating tensions and conflicts locally.

To conclude this first workshop, the last step is a debate with the community of what the concept of 'sustainable development' means for them vis-à-vis the official understanding of this term, as the idea of sustainability appears in many legal documents and relevant public policies. This is a critical discussion because it is often expected that indigenous people and traditional communities should practice the idea of sustainable development, despite the fact that this concept is an external construction. Thus it is important to ensure that this term is understood according to local reality. The need to be aware of the local meaning of sustainable development is similar to the situation of the term biodiversity, which for some communities is considered alien because it is a term that dissociates biological diversity from their livelihood and culture. For most indigenous and traditional communities it is not possible to detach these ideas as they are all part of their holistic system (A. Gray, 1999).

These nine steps described here form the content of this first workshop and are the foundation of the community protocol. It is the systematization of the answers given by the leaders to each of these topics that comprise the 'consultation document' previously

explained. It is through the discussion of each of these topics that communities start to assimilate that they are rights holders and that their protocol can be a tool to guarantee these rights are respected and fulfilled.

8.2.3- Workshop 2- Concepts, National and International Legislation, Public Policy Regarding Indigenous Peoples and Traditional Communities

Whereas the first workshop is an inward look to how communities organize themselves according to their customary norms, the second workshop focuses on sharing information about legislation and public policies with communities. As presented in the case study of Oriximiná, although the relevant information on ABS legislation was sent to ARQMO and there were meetings between the University and communities, there was a very superficial understanding of key aspects of the project and about the subject of ABS in general. The sharing of information and the assurance that this information is translated into local realities is essential to guaranteeing that communities are truly informed about subjects that may affect their livelihood and are prepared to be active participants. It is the assurance that the right to information and participation will be respected and that all its dimensions will be considered. Thus, the second workshop works with key concepts, international and national legislation and relevant public policy to empower communities to be the main actors of their own development.

The first step of this workshop is to work with key concepts that are present in legislation and public policy relevant to traditional communities. In the case of Bailique, the concepts chosen were biodiversity, socio-biodiversity, agro-ecology, agro-biodiversity, agro-extractivism and sustainable development, however, this can be adapted according to the needs of each community. An important aspect of this exercise is to ensure that these terms are presented in the format in which they appear in the legislation or policies but to allow them to be discussed, rewritten and reflected according to their local realities. This is fundamental in order to guarantee that communities have a real understanding of the meaning of these terms.

The next step is to discuss the term ‘traditional community’, its meaning and the consequences attached to it. The aim of the exercise is not only to understand the meaning of the concept but whether the community considers itself as a traditional community. According to Decree 6040/2007 traditional communities are culturally differentiated groups that identify themselves as such and that possess their own forms of social

organization, that occupy territories and natural resources as a condition of their cultural, social, ancestral, economic, and religious reproduction, using knowledge, innovations and practices generated and passed on through tradition (Presidência da República, 2007). To be considered a traditional community is the result of a process of self-determination in which communities need to assess whether they identify themselves as part of this group. This identification is important because in Brazil there are public policies that are specific for these communities. Considering that this definition of traditional communities is an external one, an internal exercise is necessary to understand what it means and whether it reflects the feeling of identity formulated in the previous workshop. In the case of Bailique, there was a need to revisit the discussion of identity as at the time no one considered the idea of being part of a traditional community. During this workshop, the communities looked into the definition found in the decree 6040, discussed their way of living and decided that they can be called a traditional community.

Once this was established, the activities of the workshop started to focus specifically on concepts related to access and benefit-sharing. Similar to the first exercise, communities were presented with a list of terms related to ABS such as genetic resources, traditional knowledge, access, biotechnology, bioprospection, prior consent and benefit-sharing contracts. The methodology of this section proposes that these official definitions should be discussed in the light of local examples in order to allow for a full understanding of the terms. Another tool used to engage communities in the discussion, to clarify the concepts and explain the process of ABS in practice was a theatre play where an access to traditional knowledge was the main plot. In Bailique this experience with theatre was particularly successful because the communities became really involved with the story and people still remembered the characters and the role they played months later and still refer to them when discussing issues of ABS.

The objective of this part of the workshop is to introduce the topic of ABS so they are familiar with terms and how an access would happen in their territory. Communities should be prepared to receive a bioprospecting institution and not rely on them to be informed about their rights on ABS, as happened with the Oriximiná case study.

Despite not having a project of access in their community, there are numerous accounts of biopiracy in the Bailique territory, where researchers went to their community to collect a specific type of plant, leaving without any sort of agreement. These accounts were heard at the workshop and there was a change in local perception upon realizing what had happened was an illegal activity. It was also during this workshop that the

communities initiated a discussion about their traditional knowledge and how important it was for their survival. This was very significant as they began to realize the value of their knowledge and the need to protect it. It was a moment to share knowledge among themselves, to identify knowledge holders and to collectively define the need to focus on preservation of this knowledge. This differs dramatically from the scenario in the quilombo of Oriximiná where there was no meaningful discussion about their traditional knowledge and its value for the local population and for an external actor, which inevitably had an effect on their ability to ensure fair and equitable benefit-sharing. One of the most immediate results of this workshop was the creation of the Traditional Knowledge group (formed by healers, prayer healers, midwives, etc.) with the aim of exchanging their knowledge on plants and thinking of strategies for its preservation.

Once they understand the terms related to ABS, the next step of the workshop is to introduce the specific legislation that can support them in securing some of their rights. It is important that this part of the workshop should also be adapted to the reality of each community so they can discuss the legal norms that are most relevant to their current situation. In Bailique, the focus was on national legislation on ABS, the Convention on Biological Diversity, the Nagoya Protocol and Convention 169 of the ILO. The main objective of this activity is to give communities a general idea that there are legal norms that can support them in their fight to secure their rights. It is essential that communities must break with the dependency and paternalist attitude with external actors, and fight for their rights that are legally guaranteed.

Finally, considering they now recognize themselves as traditional communities, the last part of the workshop focuses on explaining to them the public policies they are entitled to, what the necessary steps for accessing them are and identifying the local challenges in accessing these policies. The public policies chosen by the project were those with a direct impact on their local context, such as the National Policy on Sustainable Development of Traditional Communities, the National Plan of Socio-biodiversity Product Chain, National Policy on Agroecology, National School Meals Programmes and Rural Technical Assistance.

8.2.4- First General Meeting

The division of Bailique into four areas was an important step in the methodology towards increasing participation in the process. However, considering that the community

protocol belongs to all communities it is necessary to have a moment where all communities can collectively discuss their protocol. The General Meeting is the space where all communities get together to discuss the project.

The first part of the General Meeting is an attempt to bridge the gap that exists between government and these communities by inviting government representatives to attend the meeting. In Brazil, there is an absence of the State in indigenous and traditional communities, which contributes to their inability to ensure their rights as citizens are fulfilled. Considering all the topics discussed during the first and second workshops, it is possible at this stage to identify which government departments would be interesting for communities to engage with. It is important to consider that these communities are usually geographically isolated with very limited communication tools and therefore are not able to maintain an effective dialogue with a State representative. It is essential to consider that these communities do not have the financial means to afford a trip to the city, let alone the capital, to engage and lobby the government. There is real value in having representatives of the government present during the general meeting as this is a unique chance for communities to clarify doubts, make their demands and lobby them according to their needs. It is worth remembering that public policies are usually thought from congress and very rarely discussed locally with the population that will be affected by them. Thus, this can also be a chance for communities to pressure government for increased participation in policy making. For the General Meeting in Bailique, there was the participation of a representative of the Ministry of Environment which works with issues of ABS; the Ministry of Fishery; the Public Prosecutor´s Office and the Federal Heritage Registry, which deals with land regularization; and the National Supply Company[45], which has programmes for agriculture and extractivism.

The second part of the General Meeting is dedicated to analysing the responses that are given during the first round of the consultation document. It is important to remember that this document is organized by area, therefore analysis should happen according to each of the four areas. In this way they can start to see the similarities and differences that exist within their area and agree on answers that can reflect all the communities. This debate aims to generate a product of consensus among leaders that is presented before the assembly of the General Meeting.

[45] The National Supply Company (CONAB in Portuguese) is a public company linked with the Ministry of Agriculture with the objective of managing agricultural public policy in the country.

This discussion by area of the 'consultation document' is significant as it brings about the realization that the community protocol is also challenging local powers and giving the same weight of responsibility to the remaining community members. This sends a strong message to both government representatives and to local leaders that the empowerment of communities is a key aspect of the project.

In respect to the need to empower communities, it should be remembered that this is a concept related to a process of changing power relations (Batliwala, 2007). Hence there is a need to equalize community power with the external actor, which in this case also includes the GTA network, which was the external institution leading the process. One way to do this is through empowering the community to lead the process of the construction of their protocol, to gradually take the process under their responsibility. As such, during the General Meeting the communities decided for the creation of the Community Protocol Management Committee[46], which was formed by community leaders from the four areas and had the objective of coordinating and executing activities deliberated by the community protocol. Gradually the community must take control over the process. It is interesting to note that the process of change in power also started to happen more locally as some of the people chosen to be part of this Committee were not the usual leaders of the region, but people that became more and more involved in the project and showed leadership skills in the process, including women and the younger generation previously involved in the support group for the consultation document.

8.2.5- Workshop 3- Public Policies for Traditional Communities and Access and Benefit-Sharing Capacity Building

In order to maintain the dialogue with the government that began during the General Meeting and to prepare communities to access public policies that they have the right to, the third workshop invites representatives of the different Ministries to talk in more detail about how to access specific public policies. Each external guest needs to produce material prior to the workshop which is transformed into banners and given to every community, to allow the information to be shared among all.

Unlike the General Meeting where the higher number of participants would create a certain difficulty to clarifying all aspects of the policies, the third workshop gives the

[46] The Committee was later transformed into the Bailique Traditional Communities Association (ACTB), which is responsible for executing the decisions taken by the Protocol Assembly.

opportunity for communities to spend time with these representatives, as it is done by area. In this methodology, the first part of the workshop is dedicated to this dialogue with the government, however, the objective is that government representatives stay for the entire duration of the workshop, allowing for the creation of a space where communities can maintain a dialogue with them and clarify any unresolved issues. In the specific case of Bailique, the Ministry of Fishery, the Federal Heritage Registry and the National Supply Company were all invited to talk to communities about public policies within their jurisdiction, as these were areas that communities identified as important.

The second part of this workshop is focused on capacitating communities on access and benefit-sharing. The communities were already introduced to key concepts of ABS during the second workshop, so this is the moment where they will revise the terminology and have a deeper discussion of the steps of an access and how it would work in practice. The methodology gives special focus on how best to translate the theory into local realities, so an essential part of it is to allowing communities to tell their stories about their traditional knowledge. It is crucial that communities understand the value of their traditional knowledge in order to ensure a fair and equitable benefit-sharing.

Once they discuss the process of consent, of what a benefit-sharing contract entails and what are their rights and responsibilities, the methodology uses a role-play activity to work further on their understanding of the subject. A person from the project plays a bioprospecting institution that wants to access traditional knowledge of the community but without respecting any of their rights. This exercise will be an evaluation of whether they understand the nuances of an access and what they can do to ensure that their rights are respected from the very beginning negotiating with external actors.

In a parallel to the Oriximiná ABS case study, it is possible to see the difference in attitude towards the subject. The Federal University of Rio de Janeiro shared with communities relevant information related to ABS, but the experience in Bailique showed that in order for local communities to have deeper understanding about a topic that is not common in their everyday life, a lengthier process and a specific methodology is required.

It was ten months into the project that the communities concluded this workshop and were more familiar with the topic of ABS, understanding key concepts, the process of access and the importance of their knowledge. This is not to say that the Bailique communities can deal on their own with a case of access in their territory. Most likely they would need external assistance considering there is still a contract to be discussed that is often loaded with legal terms. However, this population is certainly more prepared to deal

with a bioprospector as they are aware about the existence of national and international legislation that supports them, they understand the value (monetary and non-monetary) of their traditional knowledge, they know the steps of an access and can identify the areas in which they might need external support.

It is not possible to compare the ABS in Oriximiná with the scenario in Bailique as there has not been a case of access of a genetic resource and traditional knowledge in the Bailique archipelago. However, by seeing the results of this specific workshop it can be affirmed that there is a striking difference between how the Oriximina quilombo and the Bailique communities perceived the issue of access and benefit-sharing, the latter being much better prepared to receive a bioprospector than the former.

8.2.6- Workshop 4- Consultation Document, Discussion of Protocol Priorities, Risks and Opportunities.

The fourth workshop is the beginning of agreements on the content of their protocol. Up to this point communities have discussed their identity, natural resources management, local institutions, land issues, ABS, traditional knowledge and relevant public policies. It is important to note that the process of constructing a community protocol is not just about ABS but involves all aspects of the management of their natural resources and territory. This is an acknowledgement of the connection that exists between community and nature, where a holistic approach to this relationship allows for fulfilment of a variety of rights.

This workshop is the first step towards organizing and systematizing all the information discussed during the previous meetings. In order to facilitate the finding of common answers, the communities of two areas got together in the same workshop, starting in this way the process of negotiating common ground.

So the first activity is to analyse the second round of the ‘consultation document’, which was modified by the leaders during the first General Meeting and circulated once again to households for verification of the answers. This time, the leaders will be looking at the final version and will discuss the content of the document, aiming to find commonalities between the answers given, thus constructing collectively an answer that could reflect the reality of both areas. There must be an identification of those topics which are absolutely necessary for their final protocol document and topics which can be negotiated. The objective of this activity is to end the workshop with an initial agreement

between the two areas, having discussed an initial format and content of their community protocol.

The last part of this workshop is to identify the risks and opportunities of their territory, considering discussions from all previous workshops. This activity comes at the latest stage because at this point communities can visualize the protocol, the most direct consequences of having such a document and the needs of their collective territory. It is fundamental to note that the list of risks and opportunities will serve as the basis of future discussions regarding their development strategy.

8.2.7- Second General Meeting- Final Agreement

The second General Meeting is the last phase of the methodology for constructing a community protocol. This event is conceived to be the moment where final agreements of the content of the protocol will happen. In order for this to happen, the general assembly must discuss the results of workshop 4, where an initial agreement started to be shaped. From that point, communities can start to debate and negotiate elements which reflect the reality of the communities of the four areas in order to be able to decide on the content of a community protocol of the whole territory.

It is important to remember that the information discussed is based on the 'consultation document' that in the case of Bailique reflected the answers of over 70% of households. Therefore, it is possible to say that the final text of their protocol was a reflection of these 70% and not only of the leaders present at the workshops and general meetings. Also, it is important to highlight that the community protocol should not be about the needs of individual communities, as we understand that each locality has its own particularities. It is essential that communities understand that a 'community protocol' should be a guide to dealing with their territory as a whole, aiming to facilitate dialogue with external actors.

The decision of what goes in the text of their Protocol should be made according to traditional norms. It is essential to respect the model and timing of customary decision-making. In Bailique, after a lengthy debate, the communities present voted on every item of the protocol, agreeing (or not) on what would enter the final text of their protocol.

In the case of Bailique, the communities decided to add a specific section on ABS to their protocol. Despite their protocol being about the management of territory and resources, the communities realized that mentioning ABS in the final text would enhance

their chances of their rights being guaranteed should they enter into an ABS negotiation. This was extremely important because this community protocol becomes the main instrument that will guide their dialogue with any external actor.

8.3 – Challenges and Results of the Bailique Community Protocol

In December 2014, the traditional communities of Bailique voted on the final content of their community protocol during their second general meeting. This was the result of twenty months of work, with the development of several workshops and activities at the community level. This is the first community protocol to be developed in Brazil and its methodology has been distributed to many organizations and communities in order to facilitate the replication of community protocols in the country.

The content of the Bailique Community Protocol has (i) the definition of who is part of the communities according to their traditional norms, (ii) what are the criteria for inclusion and exclusion of community members from the territory (i.e. the need to reside in the community, to respect collective decisions, etc.), (iii) the values that guide them as a community, (iv) how the process of decision-making works, (v) how they define their local rules for the sustainable management of their biodiversity and (vi) a brief statement about ABS (Comunidades do Bailique, 2014).

Although the content of their community protocol is important as a guide for future activities, this research is concerned about how the process of discussing the community protocol has generated results in itself, introducing the concept of rights and in this way bringing a level of empowerment to the community to be able to negotiate with external actors.

It is important, however, to acknowledge that there have been problems in the implementation of the Bailique protocol, where some aspects of the methodology have not been applied properly due to several factors. Although this analysis falls outside the scope of this study, it is important to identify some of these challenges in order to bring to this discussion the difficulty in ensuring that rights are totally respected and fulfilled.

As was presented previously, one of the concerns of the methodology developed is to guarantee that participation occurs at different levels, thus the consultation document, the division of the territory in areas and decisions being taken in assemblies by vote. These have certainly enabled more community members to participate in the decisions related to the Protocol, creating a sense of the importance of participation. However, there is a real

challenge in putting this into practice as there are many factors that can influence how participation occurs.

For instance, in Bailique, external pressure from partners had a real impact on the level of local participation. As observed by Monteiro (2018), there were moments where decisions were taken without allowing the community to deliberate in their own time. One good example was the formulation of the statute of the Bailique Traditional Communities Association (ACTB), that was drafted overnight by a lawyer who is a partner of the project (Monteiro, 2018). The coordination of the project argued that there was an urgent need to have a working local association in order to ensure new funding for local activities and access to certain public policies relevant for the communities. Thus, there was a 'need' to have the statute ready during the general meeting as most communities were present and could therefore discuss it. Although the statute was presented to and discussed by the whole community and voted as valid the next day by the assembly, this certainly goes against the proposal of the methodology of community protocols to ensuring the full participation of communities in all aspects of the project.

It is interesting to note that the creation of the ACTB can be seen as a way to challenge existing local power structures. This association was created with the objective of being the institution to execute the decisions taken by the protocol assembly. Because it has a legal status, the ACTB can apply for funding, develop projects in their name and access certain specific public policies. In order to work better with the different areas of their protocol, they created five working groups within the ACTB that would have specific responsibilities. They are the working groups on young people, land regularization, extractivism and production, environment and traditional knowledge.

The challenge to the official power structure occurred because new leaders were elected as coordinators of the ACTB and of these working groups, including young people that showed leadership skills during the construction of the protocol, whereas the established leadership were not voted in. This is relevant because like in many other parts of Brazil, local politics is still very much associated with political parties and often working in a paternalistic conjuncture. Thus, one of the concerns of the Bailique Traditional Community Association is exactly to maintain distance of this kind of politics in order to keep its independence and legitimacy locally.

Inevitably, this caused tension with the oldest association of the territory, the Community Council of Bailique (CCB), resulting in the distancing of them from the activities of the project. While in the beginning they were present in every workshop and

meeting, they gradually stopped sending representatives to the events. This detachment of the two associations had, to an extent, a negative impact on the protocol as the tension generated misinformation about the project and its objectives. This had to be constantly dealt with by the project staff in the field, who had to constantly juggle relationships locally (Interviewee 42, 2018).

Another aspect of the implementation of the methodology that deserves some attention is the role played by the external organization that supports the development of the community protocol. In the case of Bailique, the Amazonian Working Group (GTA) started the process, which was then taken over by the Amazonian School of Lutheria (OELA), both established NGOs that work in the area of environment and education in the country. In this specific case, the coordinator of the project was involved with both NGOs, making the transition easier [47].

The external supporting organization has the responsibility to lead the process, be the bridge between the community and external partners, and prepare the communities to achieve independence and empowerment. The Bailique case study showed that it is very important to have a supporting organization that is established and well-connected in order to bring the financial resources needed as well as be able to reach relevant governmental institutions. For instance, there was the presence of staff from the Ministry of Environment and the National Institute of Colonization and Agrarian Reform (INCRA) at some workshops, both from the Federal level, which very rarely engage with local communities. This was only possible because both NGOs and specifically the coordinator of the project have enough influence to guarantee the participation of these external actors.

The challenge then is to find the right balance between the role of this supporting organization and the desired independence of the local association. While it is understandable that the external organization will play a major role in the beginning of the protocol, it is expected that the local association will take over the lead in the path to its empowerment. While in Bailique that happened to an extent as coordination of the ACTB slowly but visibly gained confidence to act independently from the coordination of the project, it was also observed that often during meetings the protagonist role was played by the supporting organization, affecting many aspects of the decision-making process (Monteiro, 2018).

[47] Because of financial problems faced by the GTA, the coordination of the project was given to OELA, maintaining the same coordinator. This was discussed and agreed by the communities.

These are important setbacks that should be taken in consideration when analysing how the methodology was applied locally and certainly these are relevant points for the project to act on. Nevertheless, it is also worth highlighting that there have been significant results arising from the implementation of the protocol.

Since the finalization of the Bailique Community Protocol in 2014, the community have been working towards implementing the decisions taken by the assembly of the community protocol. The most prominent one, and the focus of the community for the past 2 years, has been the decision to focus on improving the quality of their acai berry in order to reach new markets. Historically, the Bailique communities have relied on the acai trade for their main income, selling the fruit *in natura* to a middle man who takes the berry to be sold in the city of Macapá or directly to big companies. Often this is an exploitative relationship, where the price paid is dictated by the middle man and often barely covers the costs of extracting the berry.

Through decisions taken during the discussions about the Protocol, the acai producers organized by creating the Cooperative of Bailique Producers (AmazonBai) and started a series of workshops on good practices in the extraction of the acai berry, aimed at issues of hygiene and security in the forest. Parallel to these technical activities, the producers had many meetings to discuss the possibility of certifying their acai berry in order to ensure the product's good standard for final consumers and reach better markets.

In December 2016 AmazonBai was awarded the FSC certification for their acai berry, being the first acai in the world to receive this certification (Alves & Ramos, 2018). According to Geová Alves, president of the Bailique Traditional Community Association (ACTB) the whole process of certification was interesting because it was a dialogue between communities and technical staff from the certification body. In the end, this dynamic allowed for a positive negotiation between 'western science' and traditional norms of extraction of berries (Alves, 2017).

A significant aspect of the certification of the acai is its links with education in the territory. During the Protocol meetings the community decided that one of their needs was to improve the quality of education, allowing students to remain in Bailique instead of migrating to urban areas in search of better schools. It was decided that the best option would be to develop a 'Family School', which is considered to be an appropriate educational system for people from the forest. Under this educational model, which uses the Pedagogy of Alternation, the student stays for a set period in the school and the other period in the community, where the learning continues. It is an exchange of knowledge

where both the national curriculum and the traditional knowledge of communities are valued as essential in the learning process.

Certification comes into play in this scenario as local producers decided that 5% of every basket of certified acai sold will go to a fund created with the aim of supporting the maintenance of a local 'Family School'. The president of ACTB highlighted how in the first season of the certified acai in 2017, the selling price was already double that from before certification as the market recognized the improved quality of their acai berry. Furthermore, the AmazonBai cooperative was able to buy their own boat, which guaranteed trade directly with the acai buyer avoiding the middle men.

Since the certification, the Bailique cooperative has opened an acai shop in the city of Macapa that sells the fruit *in natura* and also as a blend, which is also being sold to other cities in Brazil, and has been working in partnership with Universities to develop other acai products. Meanwhile, the Bailique Family School is being built in one of the communities in Bailique, with activities expected to begin in 2019.

Another relevant result directly linked to the Protocol is related to their decision to work towards the regularization of their land. Although this will be a long term outcome, the communities are aware of the importance of receiving land titles that are legal and recognized by the government, as this is the best way to guarantee they are the rightful owners of the territory, meaning they have control over their natural resources.

The discussions that happened during the construction of the Protocol also had an influence on the community's awareness about their traditional knowledge. The creation of the working group on traditional knowledge was the first step in a series of events that have been slowly empowering this group. There have been workshops on extraction of medicinal oils, the production of plant-based medicine and on natural cosmetic products, strengthening the network between knowledge holders and increasing the value given to local knowledge.

All these very specific results are the direct product of the discussions that happened during the construction of the community protocol. It is during these workshops and general meetings (Bailique has held 12 general meetings so far) that issues are discussed and decisions taken. However, specifically relevant for this research is the question of whether the methodology of the Bailique Community Protocol can be a tool to guarantee the rights of traditional communities and as such be used in cases of access and benefit-sharing.

8.4- Community Protocol as an Instrument to Ensure Fairness and Equity

Community protocols have the potential to become a tool through which rights are respected and fulfilled. If we look specifically at the rights identified in the Oriximiná case study (right to be consulted, right to participation, right to information, right to land security and right to culture) we will see that they are present in the structure of the methodology of constructing a community protocol.

The right to consultation, participation and information are the basis of the protocol. It is possible to name several steps of the methodology that were thought to ensure that these rights are respected throughout the process: (i) the free, prior and informed consent workshop, (ii) the consultation document, (iii) the banners with the workshop information that were taken back to the community, (iv) the creation of the support group that enabled young people to participate more actively, (v) the division of Bailique into 4 areas that increased the number of participants, (vi) the decision by communities about location and date of the workshop, (vii) the creation of ACTB with new leadership, (viii) the content of the second workshop specifically aimed at sharing information about rights and public policies. These are some actions, among many others, that could be identified as small steps taken in order to guarantee that the right to be consulted, the right to participate and the right to information are fulfilled.

At the same time, the right to land security was something that was identified during the construction of the protocol, becoming an important point for discussion and action, requiring the involvement of land institutions and government in order to deal with this challenge. The creation of the ACTB Working Group on land regularization was one way for community members to be directly involved with the decisions related to land titling and keep informed about the legal actions taken to resolve the issue. Often members of this group had meetings with the lawyer, a partner of the project, to understand the legal situation of their land and the legal path taken to ensure its regularization.

The right to culture or traditional norms appears throughout the methodology of community protocols, as the entire discussion is based on the fact that these communities, which self-identified as traditional, have specific rights and policies that affect them. The topics discussed during the first workshop allowed them to identify the customary norms that will form the basis of their protocol. The second workshop discussed national and international legislation aimed at protecting and valuing local culture and knowledge such as the CBD, the Nagoya Protocol, ILO 169 and national legislation on access to genetic

resources. It was during the third workshop that the debate on the right to culture became stronger, with a specific discussion on access to genetic resources and traditional knowledge. It was at this moment, that the communities began to understand the importance and value of their knowledge and their right to preserve and maintain it. This phase of the methodology is very important because for many communities it is the first time there is a discussion of ABS that is accessible and that comes as preparation for a future access. Contrary to the experience of Oriximiná, where the bioprospector had to explain the rights and responsibilities related to the access to the communities, in Bailique they had the opportunity to debate the relevant legislation, the terms used and the process by which access happens. This is not to say that the communities are fully prepared to enter into a negotiation with a bioprospector. These communities will still need the support of an external independent organization to guide them in an ABS agreement. However, they certainly know what an ABS is, what their rights are and that their knowledge has a very specific value to bioprospectors. They are certainly more empowered than most communities who have never came across the subject.

The construction of the Bailique Community Protocol shows the importance of the 'process', bringing to light the discussion of procedural justice. The community protocol was finalized after a considerably lengthy debate, which was focused on the democratization of information, capacitating communities on ABS and ensuring optimum participation of different parts of the society. Furthermore, the methodology also focused on the need to give value to local traditional knowledge and systems, putting them in equivalence with other forms of knowledge, trying in this way to incorporate as much as possible ideas of cognitive justice. The importance of procedural and cognitive justice in ensuring a fair outcome becomes clear. In other words, a benefit-sharing contract that would represent the voices of the Bailique population and at the same time respect their traditional norms.

If we return to the discussion of a rights-based approach and how that can be a tool to ensure fair and just benefit-sharing, we see that the process of constructing a community protocol actively supports the realisation of the rights of communities, including securing the rights for land and preservation of traditional norms. As such, a community protocol can answer some of the challenges identified in the Oriximina case study and can be an instrument that will give traditional communities a greater possibility of achieving a fair and equitable benefit-sharing agreement.

9- Conclusion

This research is concerned in identifying which elements can contribute to fair and equitable benefit-sharing in cases of access to genetic resources and traditional knowledge. The use of a rights-based approach as an analytical tool to understand the ABS agreement of the Oriximiná quilombo allowed for a discussion of the role of rights in this scenario.

While the ABS contract in this case study reflected a literal meaning of justice, where both the communities and the University were getting the same percentage of the benefits, this research questioned whether this would actually mean fair and equitable benefit-sharing considering the findings during the field research, where communities failed to understand what the ABS agreement was and the consequences of having signed a contract.

Through a modified rights-based approach, this research argues that the process by which a benefit-sharing contract is signed is as important as the contract itself and should be considered in the analysis of fairness and equity. The idea of procedural justice comes into play, with an analysis of the different stages of the ABS agreement and whether and how rights were being respected in the process. In addition to procedural justice, this thesis draws on the idea of cognitive justice, which allows for the valorisation of traditional knowledge of communities, emphasising that the fairness of the ABS is also related to the acceptance of different types of knowledge.

There is, however, a real challenge in ensuring that communities are empowered to enter into an equal dialogue with a bioprospector, respecting their traditional knowledge and the rights entailed. This research suggests that community protocols can be an instrument of community empowerment where rights are respected and protected. Specifically, this thesis took the example of the Bailique Community Protocol, as the methodology used to construct this protocol was rights-based, allowing for a discussion of how the fulfilment of rights are crucial to the fairness and equity of an ABS.

9.1. Lessons Learned and Recommendations

It is possible to draw several lessons and recommendations from the analysis of the Orximiná ABS case study and from the Bailique Community Protocol project.

These should be taken in consideration by policymakers and other communities involved in any ABS agreement or willing to initiate their protocol.

(i) Lesson 1: There are costs involved in ensuring rights are fulfilled

The ABS agreement in the quilombo of Oriximiná as well as the construction of the Bailique Communiy Protocol show the need to be aware about the costs related to the fulfilment of rights. There is a cost involved in organizing meetings, in visiting communities to talk about the project, in producing materials for the multiplication of the information, in overseeing the activities of an external partner etc., all activities necessary to ensure that rights are fulfilled. The cost (monetary and non-monetary) of ensuring a right is upheld is often a burden to communities and to bioprospector institutions.

Recommendation: The costs related to all stages of ABS should be considered during the planning of activities so it does not affect the ability of stakeholders to fulfil their rights. Who will be responsible for these costs should be identified, bearing in mind that communities do not necessarily have the financial means to solely cover the costs.

(ii) Lesson 2: The right to participate is very complex as it requires a close view on how it is implemented

The way participation occurs and how decision-making is structured is key in the discussion of ABS. As was highlighted in the Oriximiná case study, it is necessary to ensure that participation has the right depth and width, meaning it involves the highest number of people and different sectors of the society. The analysis of the ABS in Oriximiná showed that it is important to understand the dynamics of the territory, its representational structure and customary norms, in order to ensure that participation is truly representative and that the traditional decision-making structure is respected.

The case of the Bailique Community Protocol showed how the creation of different spaces of participation can contribute to an increased number of participants. A simple action of dividing the territory into areas and allowing meetings to happen

in each of these areas made a significant difference in terms of who participated and the sense of belonging to the project.

There is also the question of whether voices from more vulnerable groups have the same weight in debate. This is something that was not explored in this research and certainly there is space for further investigation in the role of women, elders and young people in the decision-making process. However, the analysis of both case studies gave some indication of how these issues of inclusion appear in these communities.

The sole involvement of ARQMO as the main decision-making institution in the Oriximiná agreement suggested that other actors were not consulted about the project. Specifically, the lack of informal conversation prior to an official agreement, which was described by Sauma (2013) as part of the more traditional decision-making process (Sauma, 2013) was an indication that the project did not involve all actors of their community in the debate about the project. Most likely the elders of the communities would have had input in the discussion if a more traditional decision-making process had happened.

In the Bailique communities the inclusion of young people in positions of leadership was a natural outcome of their involvement with the project. The creation of the support group at the beginning gave the chance for this group to be included in the discussions related to the protocol and to have their voices heard. The result is that many became directly involved in Bailique Traditional Communities Association (ACTB) and more recently in the cooperative (AmazonBai).

Recommendation: The right to participation should be fulfilled ensuring the highest possible number of participants while at the same time ensuring more vulnerable groups are included in the decision-making. Local associations and/or local leaders should not be the only ones involved in decision-making, as the communities as a whole must have a voice in discussions that affect them directly. Finally, it is crucial that there is an understanding about territory and customary norms in order to ensure that the type of participation proposed during an ABS is in line with community tradition.

(iii) Lesson 3: The sharing of information should consider local understanding of the subject

In a process that aims to empower communities to have a more equal dialogue with an external actor, there is a need for information to be accessed and understood by communities. The simple act of sharing information is not enough for it to be properly understood.

The field research in Oriximiná showed how community members involved in the ABS were not completely aware about all the details of the project and nor the consequences of entering into a benefit-sharing agreement. Despite the distribution of documents and relevant legislation to ARQMO, this information was not shared in a way that could be translated into more practical language for communities.

On the other hand, the methodology to construct community protocols ensures that all information produced is distributed to all communities (and not only to the local association or leaders) and is discussed in meetings in order to improve local understanding of legal terms.

That is not to say that everyone who participated in the process of constructing the community protocol is fully aware about what the project entails and all the information discussed during the meetings. What can be affirmed, however, is that by ensuring that there was an appropriate methodology for sharing information during meetings, a discussion could happen in light of the experience of communities, having a greater chance of being better understood. This was particularly clear when discussing ABS in the Bailique communities. By using real examples, such as their experience with traditional medicine, it was possible to explain technical terms such as genetic resources, the value of traditional knowledge and bioprospecting.

Recommendation: During the negotiation of ABS, information about relevant legislation and the project should be shared with communities in the most appropriate way, ensuring that language is accessible and that information is understood by communities. A suitable methodology is required that will ensure information is translated into local knowledge and in practical terms. It is important that there is an independent organization responsible for sharing this information or at least to prepare communities prior to the access. It should not be the responsibility of the bioprospecting institution to share information related to the project, in order to avoid bias. There should additionally be a constant exchange of information between

bioprospector and communities throughout the ABS contract in order to ensure updates on the state of the research.

(iv) Lesson 4: There is a need to have institutions (or mechanisms) that are accountable to the communities and able to ensure transparency of the ABS activities.

By using the rights-based approach as a tool for analysis, it is possible to identify right holders and duty bearers when discussing ABS, which allows for the creation of a system of accountability and transparency. Who is responsible for supporting those rights and how can they be accountable to people?

The discussion about the logging in the quilombo of Oriximiná highlighted the difficulty of having accountable institutions that are transparent in their dealings. As described, there was suspicion by some community members about the type of involvement between certain coordinators from the local association and the logging company, jeopardizing their trust that the deal was being made in a transparent and accountable way.

The same happened with the ABS agreement with the University as there was no mechanism in place to ensure accountability of the process. Because the communities were not fully aware about the project, they had not planned for a local structure that could be responsible for overseeing the activities, granting accountability and transparency to the ABS project. What is happening is that the University updates them on the status of the project whenever the researcher is able to visit the territory, without any oversight from local institutions.

Recommendation: In an ABS agreement it is necessary to have institutions or mechanisms in place that are accountable to people and that can ensure the process in place is transparent. Both the community association which signs the contract and the bioprospecting institution must be accountable to other stakeholders. To this end, there is a need to consider costs, training and whether there is the political will to do so.

(v) Lesson 5: It is important to guarantee land security of communities in a discussion of ABS

The link between biodiversity conservation, culture and territory that was explored in Chapter 7 underlines the importance of land security for an ABS agreement.

The Oriximiná case study highlighted how, despite having received their land title, there are still threats to the management of their territory, such as the 'individuais' and the logging company. This has a direct impact on their ability to manage their resources and on the maintenance of their culture, which in turn might have an effect on their traditional knowledge.

The importance of having land tenure is present in the Bailique Community Protocol, as the land title became an essential part of the methodology to construct community protocols, in order to guarantee full control over territory and sustainable management of local resources.

Recommendation: The right of a community to own their territory and to manage resources according to their traditional norms should always be considered in an ABS agreement. It is important to acknowledge the link between conservation of biodiversity, land security and protection of traditional knowledge. If communities do not hold the right to their land, there is a direct threat to the conservation of their knowledge and resources, which directly affects any ABS agreement.

(vi) Lesson 6: Ensuring traditional norms are respected throughout the ABS agreement is essential for the achievement of fairness and equity.

The respect for traditional norms is an element that this thesis has identified as essential in the search for equity and fairness in the ABS, appearing relevant for all rights identified.

For instance, the process of acquiring consent for the ABS agreement in the Oriximiná quilombo was focused on the main association ARQMO. However, the discussion showed how the communities valued informal debates about projects, where the topic is discussed during everyday activities prior to an official decision. This did not happen for the ABS agreement and might be one reason why communities do not fully understand the details and consequences of their ABS project.

In contrast, the methodology to construct community protocols is constantly reinforcing the need to respect traditional norms. This appears during the first workshop, which focuses on their customary norms, in the second workshop which focuses on their understanding of legislation, and on third workshop where the discussion of ABS takes place.

Recommendation: The respect for traditional norms should be present throughout the process of access and benefit-sharing. The achievement of equity and fairness in an ABS contract is directly related to respect of the traditional norms of communities.

(vii) Lesson 7: Power relations are present in various aspect of the ABS and there is a need to break with these power structures.

Access and benefit-sharing agreements are characterized by a power relationship between the bioprospector and the community, with power often bending towards users of biodiversity. Furthermore, there are also asymmetrical power relations within communities and between communities and supporting organizations.

In the Oriximiná case study, there was clearly a power difference between the University and the community, where the bioprospecting institution held all the information, was responsible for explaining the legality of the project and there was no real space for negotiation of the terms of the contract or consent form.

The case of Bailique is also emblematic because despite the methodology of constructing community protocols working with the objective of empowering communities and breaking with existing power asymmetries, there was a situation with the external supporting organization where on some occasions it took a protagonist role, leaving local coordination as a shadow to the decisions taken.

Recommendation: It is advisable that an independent organization is involved in the process of ABS, either prior to the access to capacitate communities about the topic or during the process to give necessary support. In this context, it is important to ensure that this organization does not retain all the power, allowing communities to become independent actors and to lead the process according to their development plans.

9.2- Practical Implications

If we refer back to this thesis's contribution to knowledge outlined in Chapter 1, there is a perceivable practical impact on the current discussion of ABS in Brazil, especially considering the passing of the new biodiversity law.

Law 13.123 establishes the role of community protocols as one possible consent tool for an access and benefit-sharing agreement. With its inclusion in the Brazilian normative system, a surge in community protocols is expected in the country.

Brazil already has other community protocols, as is the case of the 'root healers' traditional community from the Cerrado biome (Dias & Laureano, 2014) and the indigenous tribes of Munduruku (Munduruku, 2014), Juruna (Grupioni, 2017), Waijapi (Garzón, Grupioni, Szmrecsányi, & Caporrino, 2014) and Ashaninka (Povo Ashaninka do Rio Amônia, 2016). In contrast to the Bailique Community Protocol that deals with the sustainable management of their territory, most of the other protocols were developed to be a consultation community protocol as the focus is on describing how they would like to engage with external actors according to their traditional norms and how decision-making happens in their territory. These protocols are a very important tool for these communities when facing an external threat.

With this new legislation in place, one concern is the danger that the process of constructing community protocols is hijacked by companies willing to access genetic resources and traditional knowledge from a specific community, constructing a community protocol that does not necessarily reflect the wishes and needs of local people. It is crucial that the process of developing a community protocol be a bottom-up process with no biased interest attached to it.

The experience of the Bailique Community Protocol, as discussed in this thesis, can serve as guidance to other communities willing to start their own protocol independently, ensuring they are empowered throughout the process and their rights respected. The holistic characteristic of the Bailique Protocol allows it to be an instrument that works with many areas such as land security, protection of customary norms, decision-making processes, representational bodies, ABS etc. ensuring that a great variety of rights are considered and protected.

A community protocol that is constructed using a methodology based on rights, such as with Bailique, is able to fulfil the consent role proposed by Law 13.123 but will also be able to fulfil a very important gap in the discussion of ABS by

contributing to the empowerment of communities and to closer situation of a fair and equitable benefit sharing agreement.

9.3- Community Protocols and ABS

It is not possible and it would certainly be naïve to argue that a rights-based approach to ABS would be determinant to reaching fair and equitable benefit-sharing. As was discussed in this thesis, there are many nuances in the implementation and respect of rights in cases of ABS and therefore many factors that can affect the final ABS contract.

It is possible to say, however, that the chances of getting a benefit-sharing agreement that is closer to what a community would consider fair and equitable increases if their rights are considered in the process. The ideal situation is that communities are capacitated about ABS prior to any access, so they can start negotiation on more equal terms with the bioprospector institution.

What this thesis proposes is that the community protocol could be used as an instrument to empower communities in an ABS agreement. Despite the existence of community protocols around the world, such as the traditional healers from South Africa (Sibuye et al. 2012) and the Potato Park in Peru (Argumedo, 2012), that were created with this objective, in Brazil there is still no experience in that respect. There is no community protocol that has been constructed as a specific answer to an ABS agreement in the country.

It will be important to see which models of community protocols will be developed in Brazil in the near future, whether they will have rights as the basis of their composition, if they will be used to negotiate an ABS agreement and if so how the respect of rights will contribute to the achievement of fair and equitable benefit-sharing.

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Annex 1: Interviews for the Oriximiná and Bailique Case Studies

Interview	Date	Community/Institution	Position of the interviewee
1	06/03/12	Pancada	Knowledge holder and eldest of community
2	07/03/12	Pancada	Knowledge holder and matriarch of community
3	07/03/12	Pancada	Health Agent
4	08/03/12	Pancada	Teacher
5	08/03/12	Pancada	community member
6	08/03/12	Pancada	Knowledge holder
7	09/03/12	Abuí	ARQMO coordinator
8	09/03/12	São Joaquim	Knowledge holder and community coordinator
9	09/03/12	São Joaquim	community member
10	10/03/12	Espírito Santo	Knowledge holder and community coordinator
11	10/03/12	Espírito Santo	community member
12	10/03/12	Espírito Santo	Knowledge holder
13	11/03/12	Jauary	Forest guide
14	12/03/12	Pancada	Forest Guide and community coordinator
15	13/03/12	Bacabal	Coordinator of the area association ACORQAT
16	13/03/12	Bacabal	Knowledge-holder , community coordinator and coordinator for the ‘ area association’ ACORQAT
17	13/03/12	Bacabal	community member
18	14/03/12	Varre Vento do Trombetas	Knowledge holder, community coordinator and coordinator of the ‘area association’ ACORQAT
19	14/03/12	Varre Vento do Trombetas	Knowledge holder

20	14/03/12	Varre Vento do Trombetas	community member
21	14/03/12	Varre Vento do Trombetas	community member
22	14/03/12	Serrinha	community member
23	15/03/12	Bacabal	ARQMO coordinator
24	15/03/12	São Joaquim	Coordinator of the 'area association' ARCOQ
25	May 2013 (second visit to the community)	Moura	ARQMO coordinators
26	2013	UFRJ	University researcher
27	2014 and 2015	CPI- SP	Executive Coordinator
28	2013	Departamento do Patrimônio Genético (DPG)	Departamento do Patrimônio Genético (DPG)
29	25/09/16	São Joaquim	Knowledge holder and community coordinator
30	25/09/16	Espírito Santo	Knowledge holder and community coordinator
31	25/09/16	Espírito Santo	Knowledge holder
32	26/09/16	Pancada	community member
33	26/09/16	Pancada	Knowledge holder
34	26/09/16	Pancada	community member
35	26/09/16	Pancada	Knowledge holder
36	26/09/16	Pancada	Knowledge holder
37	28/09/16	Jauary	knowledge holder and community leader
38	28/09/16	Jauary	Knowledge holder
39	29/09/16	Serrinha	community member
40	29/09/16	Varre Vento do Trombetas	community member
41	29/09/16	Pancada	Forest Guide and community coordinator
42	March 2018	External	External researcher
43	2016	Bailique	President of ACTB
44	2016	External	OELA

Annex 2: Themes of interviews

Themes	Questions
Knowledge about the ABS project	Were they involved directly with collection or identification of plants?
	Did they understand the meaning of traditional knowledge?
	Did they understand the value of traditional knowledge?
	Did they know the main objective of the ABS project?
	Did they know the current state of the project?
Knowledge about benefit-sharing	Do they make the link of possible benefits with the use and therefore value of their traditional knowledge?
	Who should receive the possible benefits arising from the access? (i) the people that worked directly with the University? (ii) the communities that worked with the University? (iii) all communities of the Land Association that are involved in the ABS project (Erepecuru and Trombetas), including the communities where access did not happen (iv) ARQMO should receive the benefits and distribute accordingly
Access and management of natural resources	How is the relationship between individuais X coletivos?
	Any conflict with external actors to access natural resources? (mining, logging, etc)
	Any changes in the fish or animal population?
	How is the use of fire in the region?
Land Security	Do external actors have access to their territory?
	How important is to have the title of your land? What changed from previous situation?
Decision-making process	How things are decided in your community? And in the quilombolo as whole?
	What is the role of ARQMO? What is the current situation of this association?
	Do people have a voice in the decisions?
	How was the ABS project accepted in the community?
	What is the role of each local organization? (ARQMO, Land Association, local coordinator)
Culture	How they relate the maintenance of their culture with the protection of their territory?
	How is their history related with their territory?

Annex 3- Pictures of Oriximiná and Bailique

Picture 1: Quilombola using a traditional boat as a mean of transport-Oriximiná quilombo 2016
Photo by Paulo Santos/AcervoH

Children playing in the one of the many waterfalls. Oriximiná quilombo 2012
Photo by Roberta Ramos/AcervoH

Fire in the forest caused by an ‘Indiviual’- Oriximiná quilombo 2016
Photo by Paulo Santos/AcervoH

Big ship used to transport products from mining- Oriximiná quilombo 2016
Photo by Paulo Santos/AcervoH

Communities voting during a Community Protocol meeting. Bailique, 2016
Photo by Paulo Santos/AcervoH

Communities arriving for a Protocol Meeting – Bailique 2016
Photo by Paulo Santos/AcervoH