Environmental Justice, Coloniality, and Indigenous Peoples in Latin America

A Qualitative Case Study of the Munduruku's Conceptions of Environmental Justice Struggles in the Amazon Basin of Brazil

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Abstract

This research is a qualitative case study of the Munduruku who live in the Amazon basin of Brazil. The Munduruku as indigenous people are facing environmental and social injustices such as the neglect of territorial, civic, and participatory rights, and struggles with respect and recognition because of the current threat of development plans in the region. This research aims to contribute to the growing body of environmental justice literature by utilising the theoretical framework of Environmental Justice by Schlosberg in combination with concepts of coloniality of power, knowledge, being, and justice. The theoretical framework of Environmental Justice is critically reflected upon in the context of indigenous environmental justice struggles and possible conceptual advancements explored. A special focus hereby lies in knowledge production of indigenous communities and the recognition of belief systems as well as in the inclusion of ecological justice or more-than-human-approaches. The case study is based on documents, interviews, and speeches given and created by the Munduruku and analysed through thematic analysis by Braun and Clarke. The underlying question was how the Munduruku understand and conceptualise the 'environment' and 'justice' in the context of Environmental Justice. The final themes were: 1. 'Environment' with the sub themes of 'generational connection', 'cultural, spiritual, and physical dimensions of land', and 'ontologies' 2. 'Justice' with 'rights', 'participation', and 'recognition' as sub themes 3. 'Knowledge and education'. The research concludes that while the framework of Environmental Justice is overall useful it needs to be adapted to the case of the Munduruku and indigenous peoples in general. Historical, political, economic, social, and cultural power structures resulting in dimensions of coloniality need to be included. This especially refers to the coloniality of knowledge, and the inclusion and recognition of indigenous epistemologies and ontologies both in academic concepts and in the real-world cases at hand. Furthermore, especially in indigenous environmental justice struggles, but generally for the whole framework of Environmental Justice, is the exploration of human-non-human-relationships necessary in order to understand conceptions of the environment.

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1   Introduction

*„One does not have to be a great seer to predict that the relationship between humans and nature will, in all probability, be the most important question of the present century." –
Philippe Descola 2013 (cited by Raftopoulos 2017)*

As the well-known quote by the anthropologist Philippe Descola points out, the relationship between humans, non-human-beings, and the environment continues to be a crucial question of our time. Most recently, António Guterres, the United Nations Secretary-General further emphasises this issue: "*2021 must be the year we reconcile humanity with nature*" (United Nations Climate Change 2021). A seemingly never-ending list of ecological issues and buzzwords come to mind when we think of the environment and its current problems. The Environmental Justice Atlas (http://ejatlas.org) lists over 2000 ongoing ecological conflicts on the globe, many of which are happening in the global South (Temper et al. 2015; Álvarez and Coolsaet 2020, 50-51). These environmental topics are not new and have been in the public eye for decades becoming more and more urgent ever since. However, these issues are far more profound and impactful than we imagine at first glance and reach multiple and diverse areas of society. Environmental issues and questions are deeply intertwined with societal ones and vice versa.

How do climate change and natural disasters affect most vulnerable members of society both geographically and societal? Who has access to water and food? Who can afford sustainable alternatives? Where is waste being disposed of? Whose territories are being used for extractivist purposes? What roles do people, non-human beings, and nature have within development and economic plans? These questions and many more highlight the complexity and intersectionality within this discourse, including political, philosophical, religious, ecological, and social aspects within one debate. Many of these questions refer to human rights issues and debates of equity, vulnerabilities, and justice – which we can capture under the concept of "Environmental Justice". Given the complexity and importance of these issues it is necessary to further advance the knowledge both within society and academia.

While environmental injustices disproportionally affect marginalised communities, indigenous peoples belong to the most vulnerable group (Havemann 2016, 334). Simultaneously, indigenous peoples, activists, and movements have been majorly contributing to environmental justice and climate change debates all over the world, forming an international network to halt

and critique these devastating environmental developments and their underlying power-structures (Powless 2012, 412). However, the increase of large-scale development projects in all Latin America, and Brazil in specific, has made the region one of the most dangerous places for activists of human and environmental rights in the world (Raftopoulos 2017, 387; Raftopoulos and Morley 2020, 15). While the region has been heavily exploited since colonial times, there has been a strong increase in the exploitation of natural resources and marginalised communities in recent years (Raftopoulos 2017, 388; Acosta 2013, 62). Brazil holds the biggest share of the Amazon region, the largest and most bio-diverse area on earth. Its destruction would pose a threat to 20 million people in Brazil, including one million indigenous peoples (Raftopoulos and Morley 2020, 2). The continuous exploitation of resources manifests itself in human rights breaches, forced displacement, and the overall destruction of livelihoods and the environment (Riethof 2017, 483). The struggles for environmental justice for indigenous peoples are inherently connected to development plans, territorial rights, and questions of recognition which all are embedded in colonial and neoliberal power-structures, geopolitics, and current political tendencies (Acosta 2013; Norman 2017, 538).

The research of socio-environmental conflicts has exposed different "conceptualisations of nature, development, and human rights" in Latin America (Raftopoulos 2017, 389). This ultimately leaves us with the overall question of how we are understanding the role of the environment, the people in it, and overall justice in socio-environmental conflicts.

The aim of this research is to contribute to the growing body of Environmental Justice research in the hope to challenge existing frameworks and conceptualisations as well as to advance and support human-environmental relationships, well-being, and rights. In order to do so, the framework of Environmental Justice is utilised in the case of the Munduruku, an indigenous community in the Amazon region of Brazil. In addition, a special focus on coloniality and human-non-human-relations is maintained.

The research question is the following:

- **How beneficial is the concept of Environmental Justice to indigenous environmental struggles?**
- **What conception and understanding do the Munduruku in Brazil have of 'environment' and 'justice' in the context of socio-environmental struggles?**

2   Literature Review

2.1   The Case of the Munduruku

The Munduruku are amongst one of the largest indigenous communities in Brazil, consisting of around 13,000 to 14,000 people (Walker and Simmons 2018, 8; Loures 2018, 5). They live in 130 villages in the states of Mato Grosso, Amazonas, and Pará, however, most live in the Tapajós valley (Loures 2018, 5). Their territory reaches over hundreds of thousand hectares, however, not all of it has been officially demarcated as Munduruku territory (Loures 2018, 7). The status of demarcation can be seen on the official website of Fundação Nacional do Índio (FUNAI). The territory that is relevant in this case has been already identified as indigenous territory, but not officially demarcated most likely due to the planned development projects (Loures 2018, 7).

The current threat which the Munduruku are facing is the construction of the Tapajós Hydroelectric Complex (THC) consisting of five dams, making this complex one of the largest hydropower facilities in the whole world (Walker and Simmons 2018, 5). This complex is part of a major development plan by UNASUR (Initiative for the Integration of the Regional Infrastructure of South America) in which a total of 638 dams in the Amazon region of South America is planned (ibid.).

As the analysis will show, the planned THC would have devastating effects for the Munduruku and other indigenous and riverside communities residing within that territory, and the environment itself: destruction and pollution of land, water, and sacred places. The Munduruku, who are known to be most politically active, established the *Ipereğ Ayŭ* movement that seeks to protect the community, bring the development plans to a halt, and secure territorial rights (Walker & Simmons 2018, 8). The Munduruku and the *Ipereğ Ayŭ* movement gained a wide variety of media coverage and international alliances through for instance their websites page (Moviento Ipereg Ayu n.d; Associação Indígena Pariri n.d), cooperation with international NGOs such as Greenpeace (Socioambiental 2013; Amazonwatch 2014; Moviento Munduruku Ipereg Ayu et al. n.d). The international attention and recognition showed in the Equator Prize of 2015 given by the UNDP to the *Ipereğ Ayŭ* movement (UNDP 2015) and the Robert F. Kennedy Award for Human (2020) rights given to Alessandra Korap Munduruku as one of the movement's leaders. Since the original plans of THC in the 1990s (Walker and Simmons 2018, 5), the Munduruku have slowed down the construction of the dams when in 2016 the

government halted the construction of the São Luis do Tapajós (SLT) dam, part of THC (ibid. 6). However, the threats to the community continue through the reopening of the development plans, as well as other illegal and legal extractivist activities in the territory.

2.2   Literature on the Munduruku

The case of the Munduruku is a very complex and interesting case that received a lot of media attention throughout the years. However, little has been academically written about the Munduruku in general and even less in English. A special focus of the research area lies on dimensions of health (Ferreira da Rocha et al. 2019) or health in connection to cosmology (Scopel et al. 2012; Scopel et al. 2018).

In the context of demarcation, land rights, and the *Ipereğ Ayũ* movement, articles for instance address the resistance strategies and use of public narratives by the Munduruku movement to strategically gain public interest (Almeida Barros et al. 2017). Furthermore, the Brazilian researcher Rosamaria Loures published several articles on the Munduruku in Portuguese that focused on research strategies and territorial claims of the *Ipereğ Ayũ* movement and most recently, the effects of Covid-19 (Rocha and Loures 2020; Loures 2018; Loures 2017). She further opened a discussion of the Munduruku's cosmologies in relation to the identity of the movement, their resistance strategies, and activism (Loures 2018). Additionally, there have been articles about the Munduruku's struggles from a sustainable development perspective including Brazilian environmental policies and environmental consequences of the dam construction (Robert Walker and Cynthia Simmons 2018; Walker et al. 2019). In collaboration with Jens Okkels Andersen my last research project focused on the *Ipereğ Ayũ* movement and social movements theories (Okkels Andersen and Gruner 2020). The project contributed with the creation of an analytical tool for indigenous social movements. It concluded that the *Ipereğ Ayũ* movement utilises several resources including moral, legal, and cultural with collective identity being one of the main resources as it strengthened the internal movement and led to external recognition and support. Many dimensions such as cosmology, community structure, and ancestral connection strengthened the collective identity (ibid.).

This short overview about the research field of the Munduruku case shows that there is still a wide range of issues and areas to be addressed. While there have been connections between the Munduruku movements, cosmological understandings, land, and land rights, none have to my

knowledge applied the theoretical framework of Environmental Justice to this case. Therefore, this research aims to contribute by approaching this gap in the research area.

2.3   Literature on Indigenous Environmental Struggles

A growing body of literature is developing around the 1. Indigenous Environmental Justice 2. Indigenous Environmental conflicts in general. Since there is little academically published on the Munduruku themselves, this research will include related research about other indigenous communities who face environmental justice struggles. In Brazil, dam construction and the accompanied consequences for marginalised communities such as indigenous peoples have been protested more heavily since the 1980s and 1990s (Riethof 2017; Silvia et al. 2018). Examples include research on indigenous struggles through development projects such as the Kapayó movement against dam construction in the 1980s (Fisher 1994) or the Kaiabi's leadership and construction self-representation (Athayde and Schmink 2014). A recent example includes the construction of the Belo Monte dam in the Brazilian Amazon region from 2011 to 2019 which shows strong similarities to the current case of the Munduruku. The case study by Sara Diamond and Christian Poirier (2010) addresses the implications of the Belo Monte dam on indigenous peoples. Especially important in this context is the article by Weißermel and Chaves (2020) who discuss epistemic justice in the broader context of environmental justice in the case of Belo Monte. Similarly, research in the field of indigenous territories and land can be utilised for this case as references for land connections, rights, and development (Surrallés and García Hierro, ed. 2005).

2.4   What is Environmental Justice?

In this chapter I will shortly introduce the scholarship around the central theoretical framework of Environmental Justice (EJ), its development, and relevant contributions. To understand the scope of the theoretical framework and critique points of EJ, it is important to understand where EJ comes from and how it developed. Firstly, what exactly is Environmental Justice? EJ is both the body of scholarship and activism and an analytical frame. It centres around socio-environmental conflicts. i.e. "social conflict [occurring] around environmental issues". Many dimensions, inequalities, and power-dimensions come into play when talking about EJ (Temper et al. 2015). Ultimately, it seems to be easier to describe EJ from what is lacking, i.e. of what

environmental injustice is: "A relatively small and wealthy section of the global population pollutes and destroys marine and terrestrial habitats by claiming an ever-increasing share of the planets resources" (Hein and Dünckmann 2020, 59). The question of what exactly EJ, and the elements of 'justice' and 'environment' are questioned by the scholarship itself (Schlosberg 2007a, 1). This research explores the understanding of EJ by the Munduruku people to give one possible answer to the question.

The concept of EJ arose in the **United States along with activism of Black communities** against the unequal **distribution of toxic waste**. The concept's origin is associated with the protest and intensified struggles in the 1980s when students and workers, mostly African Americans, protested toxic waste and landfills such new as PCB landfills and the contamination of the Love Canal in North Carolina and New York (Bullard 1994; Martins et al. 2014, p; Hein and Dünckmann 2020, 59; Álvarez and Coolsaet 2020, 54; Yaka 2020, 168). This led to a wave of protests and grassroots movements who, supported by scholars, human rights activists, and church leaders, published a study showing that toxic waste dumps were more frequent within communities of African American residents (Hein and Dünckmann 2020, 59). A focus was the question why certain communities were affected to begin with (Schlosberg 2013, 39). Hence, the early scholarship around EJ was mainly concerned with inequity and distribution of environmental risks and bads in the context of racial and class issues (Schlosberg 2013, 37; Álvarez & Coolsaet 2020, 54).

In contrast, while debates about environmental issues emerged in **Brazil** already in the 1980s, the concept of EJ only entered the academic discourse in the **late 1990s** (Porto 2012, 100). The Rio summit in 1992 increased the interest in environmental issues from several social movements such as indigenous, anti-racism, civil society, labour unions, or local community movements. Similar to other regions on earth, the inclusion of EJ in the Brazilian debates contributed to areas of health, human rights, and overall justice. However, given Brazil's history, and Latin America in general, EJ discourses heavily **focussed on capitalist development, trading, and Brazil's (economic) role in the world**. Consequently, one of the focal points is the concentrated political and economic power that creates social and territorial exclusion and discrimination. One example is the overall tension between the official discourse in favour of industrial or urban growth through, for instance, hydroelectric dams and the welfare of marginalised communities such as quilombolas or indigenous peoples. (ibid. 100-102). *The Declaration of Principles of Environmental Justice in Brazil* defines environmental injustices in Brazil as:

> "the mechanisms by which societies, whose members are unequal from economic and social perspectives, place the biggest burden of the environmental harms accompanying development on disempowered lower income populations, poor urban zones, racially discriminated, traditional ethnic groups, and blue-collar groups. In a few words, the burdens are placed on the most vulnerable and marginalized populations." (Justiça Ambiental n.d cited by Porto 2012, 102.).

From its early origin onwards the concept of EJ spread and developed geographically, topically, and theoretically (Martin et al. 2014, 1; Schlosberg2013, 41; Hein and Dünckmann 2020, 59-60). EJ has been included in a range of disciplines from politics to sociology to geography and both its concept and coverage have been expanded further within the past decades (Schlosberg 2013, 37, 41; Sze & London 2008, 1331). After its origin with a focus on quantitative methods, EJ has been approached increasingly qualitative in recent years (Agyeman et al. 2016, 327). Consequently, the second generation of EJ studies also included a wider range of methodologies, creativity, and interdisciplinarity (Pellow 2016, 18; Agyeman et al. 2016, 327).

The general theoretical expansions of the concept was accompanied by questions of what 'justice' means and the need to include broader justice theories to EJ (Schlossberg 2007a, 2). One of the advancements led by Nancy Fraser (1998, 2000, 2001), Iris Young (2000), and Axel Honneth (1995, 2001) within EJ is the inclusion of recognition as an underlying reason for maldistribution (Schlosberg 2007a, 1-2). This goes hand in hand with the inclusion of participation or procedural justice in which political participation, access to information, and decision-making processes are addressed (Hein and Dünckmann 2020, 59). Another important addition is the inclusion of capabilities, mainly lead by Amatya Sen and Martha Nussbaum (Sen 1999a, 1999b; Nussbaum and Sen 1992; Nussbaum 2000) which analyses the needed capacities to function and sees injustice in the lack thereof (Schlossberg 2007a, 1-2).

The academic scope of EJ expanded along with the formation of EJ movements themselves. To just name a few, EJ movements concern issues of green spaces, public transit, food security, globalisation, indigenous rights, civil rights etc. (Schlosberg 2013, 38, Schlossberg 2007a, 6). Furthermore, within the past two or three decades the notion climate justice became increasingly important, addressing issues such as climate adaptation, responsibilities, climate mitigation, and sustainability which consequently led to an overlapping with EJ and an even broader scope of the whole concept (Schlosberg 2013, 45-46; Hein and Dünckmann 2020, 59). Another important development within EJ research is the inclusion of sustainability and the

connections between environmental, ecological justice, and sustainable development (Agyeman, Bullard & Evans, ed. 2003).

The concept of EJ has been increasingly used for cases in the so-called global South (Álvarez and Coolsaet 2020, 51). Chavez-Rodriguez et al. (2020) for instance examine within their paper the intersectionality of gender and environmental justice in the context of urban mobility narratives in Mexico. Tittor and Lopez (2020) examine the narratives of an environmental urban justice movement in Argentina in the context of bioethanol production. Yaka (2020) explores in her article the connection between justice and the environment in the context of anti-hydropower movements in Turkey. Pellow (2016) expands on critical environmental justice in the context of Black Lives Matter movements between "race" and "environment".

As this short selection shows, there is a wide variety of interdisciplinary and conceptual approaches, empirical studies, and applications. EJ has the potential to bring different perspectives and approaches together – with the goal to be applicable to various contexts and movements. Furthermore, EJ has redefined the environment and revealed how central roles of race, class, and gender connect with the environment and justice (Yaka 2020, 168). Some scholars voiced the need of EJ to go back to its roots of researching inequalities of environmental goods and bads with a focus on "race" and class (Sze and London 2008, 1348). However, many scholars see certain aspects of EJ as understudied and identify further research areas such as the ideas, meanings, and relations of justice (Yaka 2020, 168; Schlossberg 2007; Álvarez and Coolsaet 2020). Furthermore, within EJ scholarship there is still a main tendency to apply the dimension of distribution to analyse environmental justice struggles (Yaka 2020, 168). Another key direction of the theoretical conceptualization is the pluralist understanding of environmental (in)justices, the acknowledgement of diverse experiences (Schlosberg 2013, 40), and the general re-definition of what environmental (in)justice entails (Sze & London 2008 1336; Schlosberg 2013, 40). This includes the research area of epistemic and ontological justice in which the neglection and misinterpretation of worldviews is addressed as an underlying reason for environmental injustices (Hein and Dünckmann 2020, 61). Another promising research area is the inclusion of ecological justice into the framework of environmental justice in which more-than-human approaches and justice to the environment itself are being explored (ibid.).

The research at hand aims to contribute to the continuously growing body of EJ literature and address dimensions of the promising research areas of epistemic and ontological justice as well as ecological justice. Through the understudied case of the Munduruku different understandings

and conceptions of environmental justice are explored to contribute to the overall concept of Environmental Justice.

3   Theoretical Framework

3.1   Environmental Justice Theory

The following chapter will set forth the concept of EJ and its theoretical dimensions. For this thesis, I will turn to a framework proposed by David Schlosberg. This analytical framework consists of four dimensions of EJ: distribution, recognition, participation, and capabilities (Schlosberg 2007; Álvarez and Coolsaet 2020, 54). The proposed theoretical framework by Schlosberg is based on a plural understanding of EJ notions and open for development (2007e, 4).

One of the reasons for choosing this approach is its increased popularity as an analytical framework since its appearance in the last decade (Álvarez and Coolsaet 2020, 54). Furthermore, Schlosberg and Carruthers argue that the framework of EJ and the connection to the critique of neo-liberal development make this approach particularly well-suited to analyse indigenous EJ struggles around the globe (Schlosberg & Carruthers 2010, 15; Schlossberg 2007c). It further claims to be suitable to address a number of "related and interconnected issues, such as inequality, cultural disrespect and participatory and democratic rights" (ibid.), which are crucial components of socio-environmental conflicts in indigenous territories.

Besides its popularity and application within indigenous context, I choose the theory of Schlosberg due to its rather broad and inclusive framework. This theory expands traditional distributional approaches of EJ and combines other concerns and key concepts into one "*broad and multifaceted approach to justice*" (Schlosberg 2007b, 1-2). The underlying idea hereby is, to thoroughly understand and grasp justice, one must create linkages between distribution, recognition, capabilities, and participation (Schlosberg 2007b, 1). The creation of linkages and the inclusion of the four key concepts in one framework, makes this approach of EJ suitable to look at different dimensions and angles. Hereinafter, I will introduce the key aspects of the EJ theory by Schlosberg.

3.1.1   Distribution

Distribution is the original key aspect of EJ as it goes back to the movement's core claim. While it has been expanded, it is still an essential aspect of EJ and the movements' claims. Distribution hereby connects to inequality and its diverse modes of manifestation. For instance, it includes the unequal distribution of both environmental goods and bads, such as pollution or access to water as well as generally economic distribution such as between the North and South or the gap between rich minorities and deteriorated conditions for majorities (Schlosberg 2007c, 4). Within indigenous environmental justice struggles it often includes issues such as the disproportional impacts of environmental bads and / or climate change and extractivism in indigenous territories, its subsequent forced migration and violence as well as the theft of indigenous environmental knowledge (ibid. 5, 7).

3.1.2   Capabilities

Another important component of EJ theory are the capabilities of communities and individuals. This dimension focuses on the capacities that are necessary for people and communities to function and flourish (Schlosberg & Carruthers 2010, 15). This dimension connects to distribution but includes how these distributions affect the people's lives. Hereby, the focus does not lie exclusively on the distributive aspects but on the degree of freedom and decision-making the people and communities have or lack because of the commodities and distribution (ibid.). The dimension of capability can, depending on its definition, include a wide range of issues such as recognition, "*inequalities, cultural disrespect, and participatory and democratic rights*" (ibid. 17). This way it interconnects with the other dimensions within this theoretical framework. In contrast to Sen and Nussbaum, Schlosberg includes communal capacities rather than individual within his dimension.

3.1.3   Recognition

Demands of movements, especially indigenous ones, encompass more than just distributive inequity and therefore cannot be captured by this concept alone (Schlosberg 2007a, 10). For many movements, the conception of environmental justice includes deeper dimensions such as the recognition of culture, value, rights, identities, and generally social, economic, religious, and cultural ways of life and knowing that may differ from western or otherwise prevalent ones. (ibid. 2, 8, 10). Therefore, many environmental justice movements see recognition as one major component of justice. The line of thought is that their "*ways of life are being threatened simply*

because they are not recognized and are devalued as ways of life" (Schlosberg 2007c, 10). This misrecognition then leads to further inequality, lack of participation, exclusion of decision-making processes etc. However, the misrecognition could also be caused, created, or further enforced by distributive inequity and exclusion (ibid. 2). Either way of looking at it, recognition is a central theme and demand within EJ and goes hand in hand with issues such as rights to land and identity, self-determination, and respect.

3.1.4   Participation

Participation is closely connected to recognition and capabilities and interacts with them. Schlosberg writes about participation and its interconnection to recognition: "*The injustice is not just that cultures and ways of life are ignored, dismissed, disrespected, and ultimately destroyed; it is also the key that local communities have no say in this process*" (2007c 11). It could be argued that the lack of participation in decision-making is just another form of misrecognition and ultimately another mode of injustice. Similarly, many of the claims for participation arise from a frustration, lack or debilitation of capabilities in which the communities demand changes through participation in decision-making processes (Schlosberg 2007c, 2). Participation includes aspects such as access to political decision-making at all levels, transparency, active community participation, institutionalizing public participation and recognizing community knowledge. It also includes the demand for cross-cultural formats and exchanges to include traditionally excluded communities and generally the right to decide about matters that affect the communities' lives (Schlosberg 2007c, 2, 12).

3.1.5   Community

The aspect of community is not one of the four dimensions of EJ, however, should be considered within Schlosberg's EJ framework. In practice, EJ concerns diverse groups, communities and members of society and has the power to unite them within the movements. Moreover, the inequalities and injustices are not only experienced on an individual level (Schlosberg and Carruthers 2010, 17) but are embedded in political, cultural, and social structures that go beyond the individual experience and structurally affect entire communities. The community aspect becomes especially important within indigenous EJ struggles since many injustices directly impact the communities' capabilities such as the living and reproduction of cultural practices and beliefs (Schlosberg and Carruthers 2010, 26). Therefore, I will analyse the communal experiences and injustices when analysing the key aspects of EJ.

3.2 Environmental Justice and Indigenous Environmental Justice Struggles

After having outlined the theoretical framework and development of the concept of EJ it is essential for this analysis to bring it into perspective with an indigenous context. Indigenous peoples all over the world have taken one of the leading roles in issues concerning environmental or climate justice, critiquing the processes, power-structures, and worldviews that have led to this point (Norman 2017, 538; Powless 2012, 412; Dhillon 2018, 1). Consequently, both the EJ and indigenous scholarship paid attention to the role, struggles, and activism of indigenous peoples in environmental justice conflicts (Schlosberg 2013, 41; Schlossberg 2010; Norman 2016, 541). This includes for instance indigenous agency within climate change discourses, activism and resilience, rights, and marginalisation (Norman 539-541). However, there is still a research gap regarding EJ and indigenous communities as the concept does not incorporate indigenous principles (Hernandez 2019). In the following chapters I will address two main discourses that I consider to be especially relevant in the context of indigenous environmental justice: ecological and social justice.

3.3 Environmental Justice and Ecological Justice

The first important dimension concerns the relationship between the environment, humans, and non-human-beings, i.e. the relationship between environmental justice and ecological justice (justice to nature).

Indeed, many scholars within EJ identify the environment itself an important and promising dimension that is yet to be thoroughly studied and seek to connect conceptualisations around the environment with humans as a centre-point (environmental justice) and nature as a centre-point (ecological justice) (Schlosberg 2013, 43, Hein & Dünckmann 2020, 61). The question that has been raised hereby is: Can there be a connection of both fields, using similar approaches and discourses of justice for both sets of issues? (Schlosberg 2007a, 4, 2007d). Scholars such as Agyeman (2003, 2005, 2016), Yaka (2019), Zwarteween and Boelens (2014) for instance argue for a conceptualization of EJ that goes beyond socio-cultural impacts and looks at the relationship between social and environmental communities or "more-than-human-approaches" (Hein and Dünckmann 2020: 61; Schlosberg 2013: 44). Such a shift towards the relationship

between environment and humans could be described as moving from the original questions of environmental conditions as manifestation of social injustice towards the application of justice directly to the environment, i.e. justice to the environment (Schlosberg 2013, 44). This could open new debates and new conceptions of justice that otherwise may stay hidden. For instance, this relationship closely connects to the concept of Ecocide, which criminalizes harm done to nature. It could further offer new ways of protecting both the environment and the people who live on and with it which otherwise would legally have to take the longer route through human right breaches (Higgins et al. 2013; Raftopoulos 2017, Raftopoulos and Coletta 2016).

While it is certainly necessary to look at the connection between the environment and humans in EJ studies overall, it may be especially important when we look at indigenous social-environmental justice struggles. From early on, EJ indigenous movements addressed the environment, endangered species, and landscapes based on indigenous worldviews (Schlosberg 2013, 39). The scholarship around indigenous activism differentiates from other scholarships through a complex and deep connection to the land, environment, and traditional ecological knowledge (Norman 2016, 541). In the context of indigenous EJ, "land and places have social and ethical dimensions" that are based on reciprocity, obligations, and harmony with the environment (Álvarez and Coolsaet 2020, 56). Hence, it is essential to include indigenous worldviews, perspectives, cosmologies, and relationships – in short ontologies and epistemologies - with a special focus on the environment.

There seems to be a trend to include indigenous knowledge into climate change debates and sometimes even consider it to be an all-in-one-cure, however, it misses the point of discourse. Indigenous knowledge, as Mc Gregor argues, is "[…] not just "knowledge" per se. It is the lives lived by people and their particular relationship with Creation" (2004, 390; Dhillon 2018, 2). Further, indigenous knowledge is not a "product" or "commodity" which can be used (ibid.). This highlights that indigenous knowledge cannot be taken apart on its own but needs to be understood and analysed within its context. This also includes conceptions of justice and the environment, conceptions of relationships between environment, humans and non-humans, and the overall creation of ontological and epistemological meaning. This goes hand in hand with a promising direction of EJ studies that Hein and Dünckmann identify: epistemic justice and ontological politics (2020: 61, Blaser 2012; 2013; Carolan 2004; Fricker 2007). These concern for instance questions of 'What are environmental Problems?' (Carolan 2007) or 'what is the environment?'. This becomes especially relevant when different ontologies are present (Blaser 2012). Weißermel and Chaves (2020) for instance showcase how epistemic and ontological

dimensions can help to find and analyse the underlying causes of environmental injustices (Hein and Dünckmann 2020: 61; Weißermehl and Chaves 2020) and this way gaining a deeper understanding and conception of EJ.

3.4   Environmental Justice and Social Justice

Another important dimension is the one of social justice. It is near to impossible to separate issues of environmental and social justice since they build on each other and interconnect. Therefore, it is necessary to look at which social, cultural, political, and economic contexts and structures the cases are embedded in.   This involves conceptualisations of social and global justice that goes beyond local environmental conditions (Schlosberg 2013, 47) and are embedded in broader global power-structures, inequalities, and responsibilities. Whyte for instance refers to climate or environmental injustice as another mode of coloniality, or a "colonial deja-vú" (Norman 2016, 541; Whyte 2015, 2; 2016, 18). This showcases, the importance of social, political, economic, and historical power structures that are inseparable connected to environmental (in)justices.

This is also mirrored in the demands of the affected movements and communities themselves: many movements in the Global South do not identify as solely environmental justice movements but rather use Environmental Justice as one claim amongst many within the fight for overall social justice (Schlosberg 2007c, 3). Additionally, issues that seem to be exclusively about environmental concerns at first are revealing wider and underlying issues that are embedded social and political structures. Much broader struggles such as identity, community and traditional ways of lives which are embedded in the claims for EJ (Schlosberg and Carruthers 2010, 13). Many indigenous claims regarding EJ go beyond distributional equity and include the rights and possibilities to continue and reproduce traditions, spiritual and cultural practices and the relationship with their ancestral lands and environment (Schlosberg and Carruthers 2010, 13).

In return, many indigenous movements' claims for political participation and autonomy – or generally for rights and recognition - are directly tied to environmental claims such as land, resources, and the impact of development (Schlosberg & Carruthers 2010, 19). The struggles of inequity, the right and proper access to participation and the overall self-determination or autonomy, acknowledgement, and recognition of ways of living are crucial concerns and claims

within environmental justice struggles and showcase the intertwined nature of environmental
and social justice.

Many demands of indigenous peoples showcase a pluralist and community-centred approach
as well as a broad conception of justice that goes beyond traditional or mains-stream
understandings of the EJ (Schlosberg & Carruthers 2010, 29). Hence, the questions about the
meaning of 'justice' and 'environment' in all their dimensions become even more relevant to
the context of indigenous worldviews and movements.

Ultimately, the demands for environmental justice of many indigenous peoples come down to
the demand of overall social justice that has been denied. In the context of indigenous peoples,
similarly to other marginalised communities, environmental justice encompasses the
fundamental dimensions of justice and human rights. Demands and struggles go even beyond
dimensions of human rights, "*it is in the name of life, on behalf of another conception of
development, harmonious relationship with nature and different form of social life, based on
another worldview that recognizes the world is made of many worlds*" (Álvarez and Coolsaet
2020: 56).

3.5   Theory and Practice

In this chapter I will shortly address the gap between theory and practice within the EJ
framework: *"[…] there has been no thorough and comprehensive exploration of environmental
justice movements with the goal of examining the conceptions and discourses of justice that
they use*." (2007a, 3). This distinction and gap is not logical "*since empirical material is always
used to advance conceptual foundations and theoretical ideas are generally grounded in
empirical findings.*" (Hein & Dünckmann 2020, 62). The argument is that the theory can be
found in practice, i.e. the social-environmental movements themselves create and live the
different conceptions of justice which then can be transferred to theory. Therefore, arguments
for the dimensions and conceptions of justice can be found within the movements and their
discourses and should therefore be included within the theory (Schlosberg 2007a, 3). Hence, a
stronger connection between theory and practice, between framework and community is in
order (ibid.). Therefore, to address this issue within this research, I will maintain a close
connection between theory and practice. As later presented in the methodology, I will look into
the Munduruku's conceptions in regard to the theory without imposing one on the other, or as

Schlosberg summarizes it: "[…] use the first to explore the latter, and use the latter to expand upon the first." (Schlosberg 2007a, 3).

Furthermore, given the lack of decoloniality within EJ studies, which I will address below, there may be a self-evident chance to close the gap between theory and practice and simultaneously introduce decolonial discourses to the concept.

3.6   A Working Definition of Environmental Justice

For the research at hand I am using a broad fluid definition of environmental justice that includes both climate and ecological justice. Given that one of the aims of this research is to explore the Munduruku's conception of Environmental Justice, as well as 'environment' and 'justice' themselves, it is necessary to leave the definitions intentionally flexible. Within the analysis, I will reflect and summarise the Munduruku's understanding of EJ.

3.7   Critique on the concept of Environmental Justice

Diverse EJ movements and continuously increasing socio-ecological conflicts all over the world make it necessary to look at the application of EJ critically. EJ has been broadened and evolved over the past decades through new ideas, new perspectives, continuing research, and debates within the scholarship. However, critical questions emerging in this context are yet to be addressed: 'Is it actually applicable or suitable to socio-environmental justice movements in different contexts?'.

Many EJ researchers have questioned the universality and conceptualization of EJ studies and demanded a more critical EJ research (Álvarez and Coolsaet 2020, 1; Holifield, porter & walker 2009; Pellow 2018; Sikor & Newell 2014). Most recently, Álvarez and Coolsaet (2020) critique the existing research for its western-centred approach and ask for inclusion of decolonial theory within the field. Despite a fair amount of empirical research taking place in the global South, concepts and frameworks stay influenced by western ways of thinking (2020, 51). For instance, the two key concepts 'environment' and 'justice' are often defined through a western understanding and conceptualization (Agyeman et al. 2009, 10; Álvarez and Coolsaet 2020, 51). To a certain extent, Indigenous movements and knowledge systems have been topics in both academia and state driven initiatives and frameworks, however, very few take coloniality and colonial violence into account (Dhillon 2018, 2). What seems to be widely missing is the

aspect of decolonisation within the discourses, i.e. understanding and theorizing how coloniality and colonial power-structures impact indigenous communities, their relationships to land, and the overall dimension of environmental justice (ibid.).

3.8   The Concepts of Coloniality

In this chapter I will shortly address some of the above-mentioned critique points brought forward by Álvarez and Coolsaet (2020) regarding EJ and introduce the concept of Coloniality of Justice. Before, I will shortly introduce the concept of coloniality and its three main dimensions.

Coloniality, other than the historical and political process of colonialism, refers to practices around power-relations (power-matrix) which was created through colonialism. It is still (and especially) current today (Maldonado-Torres 2007, 243; Álvarez and Coolsaet 2020, 52). A crucial aspect linked to coloniality is capitalism and economics. However, it also includes other dimensions within society such as cultural, epistemic, and ontological aspects (Álvarez and Coolsaet 2020, 52-53). The concept of coloniality goes back to the work of Aníbal Quijano (ibid.). Within decolonial theory, coloniality can be described as a "complex entanglement of [three] dimensions of equal importance: power, knowledge and being (Grosfoguel 2012, Spanish Publication, cited by Álvarez and Coolsaet 2020, 53).

3.8.1   Coloniality of Power

Quijano mentions two elements that are of importance regarding the **Coloniality of Power:** 1. A new pattern of power and structure emerged, circling around capital and the world market including all forms of labour, production, and exploitation which he describes as world capitalism. 2. A new mental category of "race" and "ethnicity" was created that produced a structural hierarchy based on perceived differences that for instance also included cultural aspects: conquering vs. conquered; dominant vs. dominated; superior vs. inferior. Therefore, Coloniality of Power can be described as the practice of creating structural hierarchies or new "historical identities" in which people were placed depending on their category of "race" or "ethnicity". Within these power-structures, the "nature of their roles" was clearly defined and determined their place in the labour world and the use of resources (Quijano 2000, 216). Besides "racial" and social implementations and consequences of these hierarchies, Quijano mentions the new world order of a Eurocentric capitalist, modern, and colonial world power (ibid. 218).

3.8.2   Coloniality of Knowledge

Coloniality of Knowledge refers to epistemological considerations in which 'Western'
knowledge and knowledge production is described as "scientific" or "rational", hence,
perceived as more valuable, in consequence invalidating other forms of knowledge and
knowledge production (ibid. 221). One major element hereby is the idea of a linear,
homogenous, or even universal approach to knowledge in which knowledge systems were
ranked along the idea of evolution: "'primitive' to 'civilized', from 'irrational' to 'rational',
from 'traditional' to 'modern', from 'magic-mystic' to 'scientific'" (ibid.). In consequence, the
European or 'Western' perspective of knowledge systems distorts many realities (ibid. 222),
invalidating and disregarding other systems of knowledge.

3.8.3   Coloniality of Being

Quijano focussed on the coloniality of power and knowledge, especially in a context of
economics and authority, and only implied the **Coloniality of Being**. Maldonado-Torres and
Walter Mignolo both give credit to each other in further expanding the concept and defining
Coloniality of Being more clearly (Mignolo 2007, 156; Maldonaro-Torres 2007, 240).
Coloniality of Being refers to the "lived experiences of colonization and its impact on
language", i.e. 'what are the effects of coloniality in the lived experiences?' (Maldonaro-Torres
2007, 242). Maldonaro-Torres distinguishes between epistemic colonial dimensions which
refer to the Coloniality of Knowledge and ontological colonial dimensions which refer to the
Coloniality of Being (ibid. 254), hence the Coloniality of Being is closely related to ontology.
It is internal within the individuals and communities and can alter the perception and self-image
of the people (Álvarez & Coolsaet 2020, 53).

3.8.4   Coloniality of Justice

After this short excursus, I will continue with the critique of EJ by Álvarez and Coolsaet. In
their article they introduce a new concept of coloniality: **Coloniality of Justice** occurs when
"using western-centric concepts as the main organizing principles of non-Western EJ
movements – at the expense of other, pre-existing conceptual formations" (2020, 51). The
authors argue that through the lack of decolonial theory within EJ and the transferring Western
concepts onto the South produce ineffective research, new modes of subjugation, and deeper
injustices - which can be forms of Coloniality of Justice (ibid.).

The first critique point that Álvarez and Coolsaet (2020) voice in their article concerns **distribution** within EJ. The original claims of EJ, and still part of the theory, include the equity of distributional harms. However, it does not question the harm done to people and the environment itself, only the distribution of it. In other words, "as long as its most harmful effects are being distributed equitably within society", the exploitation itself, the harms and the practices are not being questioned or challenged within the EJ framework. This means that, within this argument and frame of distribution, the environment is perceived as something that can be exploited, objectified, and turned into distributable commodities. This becomes especially problematic when looking at social movements and communities that have different concepts regarding the environment and diverse claims than the distributional aspect of EJ allows. Consequently, the argument around distribution develops into a question of different ontologies and ways of life. Looking through the lens of distribution can make other claims that go beyond distributional aspects become invisible – or worse: misrecognised relational ontologies and modes of life that differ from the dualist Western understanding of humans and the environment (2020, 55-56).

The second part of the critique of distribution concerns the **underlying coloniality**. Even though many movements and community themselves raise the argument for distributional justice, it may be another mode of coloniality. The authors argue that in this case coloniality would operate not through violence and open oppression but through colonial reproduction and the consent of "colonized subjects". In other words, recognition or distributional equity that are offered through the state are asymmetrical and non-reciprocal which the colonized communities may agree to and subsequently create even further coloniality. Through these mechanisms, the above-mentioned exploitation may be legitimised, and the actual root or problem not addressed (Álvarez and Coolsaet 2020, 57-58).

The second critique point concerns the concept of **recognition** within EJ theory. Even though the concept of recognition was added to EJ theory to address the above-mentioned issue, it appears to be only partially a solution. The authors Álvarez and Coolsaet argue that recognition within EJ theory, which largely draws on Fraser's theory, is not suitable to grasp all dimensions of recognition around EJ struggles of communities. While it does grasp that recognition includes beside an economic dimension also cultural and institutional sides, i.e. making power structures complex and deeply grounded in social structures, it lacks the following aspects: expanding recognition beyond the state, including self-recognition, and consideration of psychological processes of recognition (ibid. 59).

As mentioned above, recognition by the state may be ineffective or even harmful as it reproduces patterns of coloniality and may even have the power to change how indigenous communities think and perceive this matter. The way recognition is used in EJ theory, the problem of state recognition is often not addressed and leaves little room for concepts such as local autonomy and self-recognition through, for instance, alternatives to liberal institutions. In other words, the importance of autonomous spaces that do not follow dual Western understandings can ultimately challenge liberal political institutions. Hence, they need to be included and considered in the discussions of recognition and EJ. This also includes a form of recognition that is not based on Western ideals and ideas, but values the modes of life of the communities, i.e. self-recognition. Furthermore, circling back to the point of underlying coloniality, the connection of psychology and structures within recognition needs to be addressed. As written in the theoretical framework by Schlosberg, "distorted identities" of the communities may be both the cause and effect of misrecognition. Álvarez and Coolsaet (2020) state that the disconnection of psychological and structural processes of misrecognition is again another Western conception, while the two should not be separated (61).

For the third and main point it all comes down to **epistemic limitations** of EJ theory and the **coloniality of knowledge** (ibid. 62-63). The problem hereby is to use the EJ justice framework which arose in a 'Western' or liberal context as the only form of knowledge production without considering other conceptions, understandings, and ontologies. In other words, the place-bound framework developed in and for a Western context is imposed on other contexts and expected to be as suitable. While the EJ scholarships start to address the issues, it still seems to be through Western epistemologies (ibid. 62-64). Indigenous knowledge and conceptions in the context of environmental justice struggles are widely used for the practical or empirical side whereas Western concepts build the theoretical framework (ibid. 62). What is generally missing is the inclusion of understandings, perceptions, and concepts of environment, justice, identities, and cultures that have not previously been considered in academia and arose from the context of indigenous communities and ontologies (ibid. 63).

In order to avoid the above-mentioned problems with EJ theory or Coloniality of Justice, Álvarez and Coolsaet suggest including intercultural, critical and decolonial approaches in which the universality of the framework needs to be questioned. Furthermore, it entails to include a "victim-centred" approach in which the affected communities and their concepts are actively included within the development of theoretical knowledge (ibid. 64).

4 Methodology

4.1 Philosophy of Science

In the following I will address the methodological considerations, starting with the philosophy of science. It is essential to reflect on the methodology, or "the means through which we acquire knowledge", since every research and every research question is embedded in and guided by methodological frameworks (Lamont 2015, 15, 24). The questions of "how, why and for what purpose" research is conducted influence the research process strongly, meaning that methodology and research cannot be separated from each other (Lamont 2015, 15, 24; Bryman 2016, 4). Two approaches that influence the research process are epistemological and ontological considerations.

Ontology refers to "the nature of social entities" or the "study of being" and this way frames the object of studies (Bryman 2016, 28; Lamont 2015, 25; Della Porta and Keating 2008, 21). Ontology, in other words, concerns how the world fits together and how humans make sense of it (Della Porta & Keating 2008, 21) and could ask questions such "what is a state?" (Lamont 2015, 25). A central point of discussion between the different stances is whether social entities can be considered "objective entities" and exist independently of social actors or whether they are subjectively constructed and created by social actors and their perceptions and actions (Bryman 2016, 28). In the thesis at hand I follow the ontological stance of **constructivism**, meaning that humans as social actors create and shape the world and this way give it meaning and a subjective reality (ibid. 29). This implies that there are constant changes and revisions as well as no definite truth (ibid.). Furthermore, it includes that I, as a researcher, construct reality and give meaning depending on my own social interactions (ibid.).

In regard to this research and the case of the Munduruku, it means that ontological understandings of, for instance, 'what is justice?' or 'what is the environment?' are socially and culturally constructed and differ depending on whether I or the Munduruku give meaning to it. The claims for environmental justice and its understanding are in constant negotiation, change and translation with other social actors such as the state or NGOs and their own ontologies. This on-going process of constructing meaning and realities through different social interactions and attachments of meaning, may in this case be also a cause of misrepresentation which I will reflect on further in the analysis. Finally, the subject of this thesis is an understanding of the environment with human, non-human beings as actors, however, I will

look through the lens of the Munduruku's ontology. This means, I will look at how the Munduruku themselves create, construct, and attach meaning to non-human actors and the environment; not at the non-human actors and nature per se.

The other stance, the **epistemology**, refers to the possibilities or study of knowing, i.e. includes questions such as 'what is acceptable knowledge?', 'how is knowledge being produced and gathered?' and 'how do we know?' (Lamont 2015, 25; Della Porta and Keating 2008, 22; Bryman 2016: 24). In this research I follow the epistemological stance of **interpretivism** which is concerned with understanding social meanings that are given by their social actors embedded in their surroundings and practices (Lamont 2015, 19). This for example means to understand and reflect on ideas, identities, cultures, and norms (ibid.). Closely connected to constructivism, this also means that I, as a researcher, produce, shape, and alter knowledge and therefore cannot be separated from my research (ibid.; Della Porta and Keating 2008, 25). Similarly, the subjective meaning (Della Porta and Keating 2008, 25), motivations, and knowledge production of the Munduruku that create the realities of what 'justice' or 'environment' mean to the community are in the centre of the research.

4.2 Research Strategy

In the following chapter I will reflect on my research strategy for this project. The research strategy, or "*general orientation to the conduct of social research*" can be roughly categorized into qualitative, quantitative research or mixed-methods and helps to classify different methods of social research (Bryman 2016, 31-32). My research approach follows a **qualitative research strategy** which rather emphasises words than on the quantification of data (ibid. 33). This strategy goes hand in hand with my epistemological and ontological stances since it traditionally, but not exclusively, places emphasis on how individuals interpret their world and how it is shifting through constant re-construction (ibid.; Lamont 2015, 77). Furthermore, qualitative research will allow me to gain a more in depth and thorough understanding of the case, the environmental justice struggles of the Munduruku and the connected meaning and sense-making (Lamont 2015: 78).

Most research most likely contains elements of different approaches regarding "the role of theory in relation to my research" and is not exclusive. Hence, approaches should rather be seen as tendencies (Bryman 2016, 24, 32). My approach can be best described as **iterative** which means I go back and forth between theory and data (ibid. 23). In the analysis and coding process, I aim to be as inductive as possible to give room to analyse conceptions and

understandings from the data and the Munduruku themselves. However, this happens under the umbrella of EJ which shows for instance in the main themes. During the research process, I keep connecting theory and data.

4.3   Research Design

In the following chapter, I will further present my research design, i.e. the framework I choose in order to answer my research questions as well as the qualitative methods of the collection and analysis of data which I am applying in this thesis (Bryman 2016, 39-40; Lamont 2015, 78).

4.3.1   Single Case Study

As a research design and framework for the project at hand I am choosing a **single-case study** which offers several benefits for the research process and analysis. A case can be defined as for instance a specific location, organization, phenomenon, actor or event (Bryman 2016, 60; Lamont 2015, 125) which makes the EJ struggles of The Munduruku and their perceptions of the situation a single case for this thesis. As a first benefit, a single-case study allows me to do an intensive and in-depth study of a single case or social process with its complex facets and components, in this case the Munduruku (Bryman 2016, 61). A case study can be applied in different epistemological and ontological stances, and research strategies (Lamont 2015, 125). However, given that my epistemology, ontology, research strategy as well as the research question ask for an extensive and detailed analysis of the Munduruku's EJ conceptions, it is logical to choose a frame that allows me to focus on the case in depth.

Another element of a case study design is the idiographic approach, meaning that the researcher in question wants to reveal the unique phenomena of this specific case in contrast to generating universal knowledge and statements (Bryman 2016, 61). At this point the question of **validity** is to be addressed: 'how can a case study which aims to reveal unique features be applicable in broader theoretical frameworks?' (ibid. 62, 384). After all, the goal of research is to generate knowledge that "impacts wider theory-oriented debates" (Lamont 2015, 125). The case study of the environmental justice struggles of the Munduruku can be best described as an **exemplifying** case, meaning that circumstances and conditions of everyday or commonplace situations are analysed (ibid). The struggles of the Munduruku in Brazil, sadly, represent struggles and issues that many (indigenous) communities suffer from in the whole world. Therefore, even though it should not be an everyday situation, for many communities it is

indeed commonplace reality. Hence, this case study can seek to analyse and create knowledge about patterns, causal mechanisms, and social key processes which this case might share with other cases from a similar category (ibid. 126, 129; Bryman 2016, 62). In other words, understandings of 'environment' and 'justice', patterns, struggles and other key elements and concepts within the Munduruku community in this case could be applicable to other (indigenous) communities and environmental justice cases in the Amazon region, in Brazil, in Latin America or even other parts of the world.

Therefore, as a further benefit, a case study can help to create and generate new hypotheses through new primary data (Lamont 205, 128), or as in this thesis: add to concepts and theoretical frameworks. However, it is important to note that a case study does not seek to create universal knowledge of causal effects that could be a 'one-fits-all-approach' and generalised (Bryman 2016, 62; Lamont 2015, 129). After all, a case study of the Munduruku looks at the specific worldview, struggles, claims, religion etc. of the Munduruku; meaning that other (indigenous) communities that struggle with environmental injustices may differ in their ontological views, cosmologies, unique struggles, alliances, action-steps etc. It is explicitly not the goal of this research to over-simplify, generalise, and as a result diminish the Munduruku's unique culture, ways of life and social structure.

4.3.2   Data Collection

This chapter will reflect upon my methods of data collection. This research is based on **archival and document-based research** (Lamont 2015, 80). Archival and document-based data collection is one of the most common practices. Documents include a wide range of elements such as letters, diaries, official reports, treaties, legislations, articles etc. (Lamont 2015, 79; Bryman 2016, 545). The documents used in this research derive from **primary sources**, i.e. documents created by the individuals with direct access to the information in question, and secondary sources, i.e. already rephrased content (Lamont 2015, 79). The primary sources include in this case study documents created by the Munduruku with or without help of other actors such as NGOs, interviews, and speeches. The **secondary sources** include mostly academic research about the Munduruku and their EJ problems, as well as other theoretical, conceptual, and thematic research on indigenous communities within the EJ scope.

Before I address the specific documents which I use in this research, I will reflect on some general aspects of document-based research as data collection. A limitation of document-based research is the small insight into the topic which leaves out aspects such as social interactions (Lamont 2015, 81). In other words, I only have access to what the creators want to tell me in

the document without the possibility of expanding or clarifying on certain issues. Moreover, the issue of veracity is important, since published documents may contain misinformation, or follow certain (political) agendas that may distort the information presented (Lamont 2015, 82).

Some researchers interpret documents as a mirror of reality, a representation of the creator's reality (Bryman 2016: 560). However, other researchers such as Atkinsons and Coffey (2011) for instance argue that documents contain a separate reality and an ontological status on their own that create a "documentary reality" (Bryman 2016, 560-561). Following this line of thought, documents are always written by a person with their own ontological and epistemological understandings of the reported information, with a certain purpose - whichever that may be - and address a target audience. Consequently, they need to be gathered and analysed keeping these issues in mind. Therefore, for the data collection and interpretation of documents in this research I am reflecting on the following questions guided by Atkinsons and Coffey as well as Bryman: 1. By whom is this document written? 2. Who is the implied readership? 3. In what context is this document written? 4. What is the goal or purpose of this document? 5. In reference to the document's intertextuality, which other documents form the context or background of this document?

The documents I am using in this research are solely written or created by the Munduruku collectively or by one of their members. Furthermore, some documents are supported by international NGOs and organisations such as Greenpeace, Amazon Watch, or Socio-Ambiental. I am choosing to analyse exclusively sources created by the Munduruku themselves because I am interested in their perspectives and understandings in the context of my research questions, not for instance in the perception of the media or its public discourse. The documents I am analysing are official, meaning that they have been published by an organisation, business, or state – in this case by the non-profit organisations or the Munduruku themselves in the context of their activism.

A majority of the documents were created by the Munduruku as an output of their official meetings such as the meeting of women in 2018 and 2019 (Gegenströmung 2018: Appx. 1; Kooperation Brasilien 2019: Appx2) or the meeting of all indigenous communities in which the Munduruku write their thoughts in a declaration. Besides these official declarations there are letters as forms of outputs of the meetings such as the open letter from the Munduruku women (Gegenströmung 2019: Appx 3). Furthermore, I am using the Munduruku letter from the 8th of June and the Munduruku Consultation Protocol which were created with Socio-Ambiental and Amazon Watch respectively (Socioambiental 2013: appx. 6; Amazonwatch. 2014: Appx. 7).

This further includes the "Map of Life" which the Munduruku drew in cooperation with Greenpeace Brazil (Moviento Munduruku Ipereg Ayu et al n.d.: Appx. 9). Lastly, I am using an interview given by Alessandra Korap Munduruku, the leader of the Munduruku women and the transcript of her speech as a laureate of the Robert F. Kennedy awards in 2020 (Mongabay 2019: Appx. 4; Kennedy Award for Human Rights 2020: Appx. 6).

The sources for analysis are all in written form, and the form of the speech transcribed to a written form. I am using the into English or German translated documents. The originals can be found on the Mudnuruku website (Moviento Ipereg Ayu n.d.). The Map of Life too includes written statements of different members of the Munduruku. In the context of the map I want to note, that while I am using the image of the map, I am not analysing the map itself – even though that is an interesting endeavour on its own - but rather the written statements on it using the drawings as illustration of the land.

Regarding the implied readership and purpose of the documents I can see two main foci. Firstly, certain documents are aimed at the government, governmental institutions, or generally actors in decision-making positions. This becomes very clear for instance in the Consultation-Protocol which addresses the government directly and includes a step-by-step guide on how the Munduruku want to be consulted, included, and informed regarding the fate of their territory. The documents under this category may mainly serve the purpose to create a dialogue with the government as well as to draw boundaries, i.e. raise their voices as a community and demand to be heard. Secondly, the other audience is the public, i.e. media, national and international audience. This becomes very apparent for example in the interview and speech given by Alessandra Korap Munduruku. Here the main purpose seems to be to raise awareness about the struggles of the Munduruku, their ways of live, to inform people and potentially gain allies in their struggles.

Another purpose for the documents, especially in consideration of their resistance and social movement, may be that it strengthens the Munduruku's collective identity and their resistance in writing clearly about their claims and struggles. However, most likely the documents serve the purpose of all the above-mentioned purposes and audience combined. For my analysis it is important to note that all these documents are public, meaning that they are intended for a broader audience within the defence of the Munduruku rights and land. Therefore, I can assume that the wording and content within these documents is thought through well and intentional with a clear message to transport: the claims and struggles of the Munduruku in the fight for their land and rights. For the analysis it is important to keep that in mind. However, since I am

interested in the Munduruku's understandings and conceptions this does not pose a problem since the content in the documents is what the Munduruku themselves want to share, gather as important, and identify with – and therefore are relevant for the analysis.

4.3.3   Data Analysis

In this chapter I will introduce my used method of data analysis, the (**reflexive) thematic analysis** by Braun and Clarke. Diverse forms and approaches of thematic analysis as an umbrella term have been used with increasing popularity within the last years and as a method it is not as clearly defined as grounded theory for instance (Bryman 2016, 584-585; Braun and Clarke 2006, 4). Among the different forms of thematic analysis, the reflexive approach is shaped by organic and evolving coding (ibid). (Reflexive) thematic analysis is "a method for identifying, analysing, and interpreting patterns of meaning ("themes") within qualitative data." (Clarke and Braun 2016, 297). Both, one of the main advantages and reasons for choosing this specific method of data collection is its flexibility. Thematic analysis is not a methodological framework but rather a method or tool with a wide range of applications. This means that it is methodologically and theoretically flexible, including its sample size, research question and approaches flexible (ibid. 297; 2006, 4.). This does not mean it is detached from methodological considerations, but it gives me as researcher an active role to design, adjust and reflect by myself according to my data and the case at hand. Another benefit of thematic analysis is that it can both identify patterns in the experiences, views, practices, and perspectives of the participants and investigate patterns with a broader social meaning (id. 2016, 297). This way it creates a rich, detailed, and complex account of data (id. 2006, 5). Therefore, I believe it is most suitable to my research since it will help me to investigate worldviews, ontologies, practices, and claims around environmental justice of the Munduruku. Furthermore, any type of data can be analysed including the protocols, interviews, and letters of this research (id. 2016, 298).

The reflexive thematic analysis by Braun and Clarke consists of six steps which are to be understood as fluid, organic and recursive starting points or guidelines (ibid. 2006, 5). These are the six phases created by Braun and Clarke (2006):

1. Familiarise yourself with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes

6. Producing the report

Themes in this case are categories that "capture something important about the data in relation to the research question" and represent a pattern or shared meaning across the data sets (Braun and Clarke 2006: 10). Themes can be described as a framework to organise and report analytic and thematic findings and observations (ibid. 2016, 297). Codes on the other hand are "the smallest units of analysis that capture interesting features of the data (potentially) relevant to the research question" (ibid.). The codes hereby can be understood as analytical entities which I generate from the data and then cluster into broader themes. Within the process of generating and clustering codes and themes it is important to have an organising concept or "shared core idea" that holds it all together and creates a broader pattern or understanding of the data (ibid. 2016, 297).

Codes can be described as semantic, i.e. capture obvious or surface meanings, or latent, i.e. capture underlying or implicit meanings, or alternatively can be a variation of both (Braun & Clarke 2006, 13). It is important to note that the codes and themes are not fixed in the Braun and Clarke method and can evolve and change during the research process. As it is advised to do several rounds of coding and reflection, the original codes and themes can change throughout this process (ibid). In the following I am presenting my codes and themes as I generated them in the latest version:

Theme	Subtheme	Central Organising concept
Environment		'Environment' centres around the Munduruku's **conceptions** and includes the relationship and dependency with and on the environment.
	Generational Connection	This subtheme explores the **generational connection** of the Munduruku to the environment, both past and future.
	Dimensions of Environment	'Dimensions of the Environment' seeks to understand its importance for the Munduruku within cultural, spiritual, and spiritual dimensions. A central question is "what does land mean to the Munduruku"?

	Ontologies	This theme dives deeper into the **ontological question** of 'How do the Munduruku understand the environment?' and their relationship.
Justice		'Justice' gathers all dimensions of justice and anchors around the Munduruku's relationship with other human actors such as the government.
	Rights	This subtheme concerns **the legal side of justice**, such as rights as citizen and demarcation of land.
	Participation	'Participation' includes matters of **consultation and decision-making.**
	Recognition	This theme includes **social and cultural dimensions of respect and recognition** towards the Munduruku and their way of life.
Knowledge & Education		Knowledge and Education includes **equity of knowledge, acquiring knowledge** and teaching.

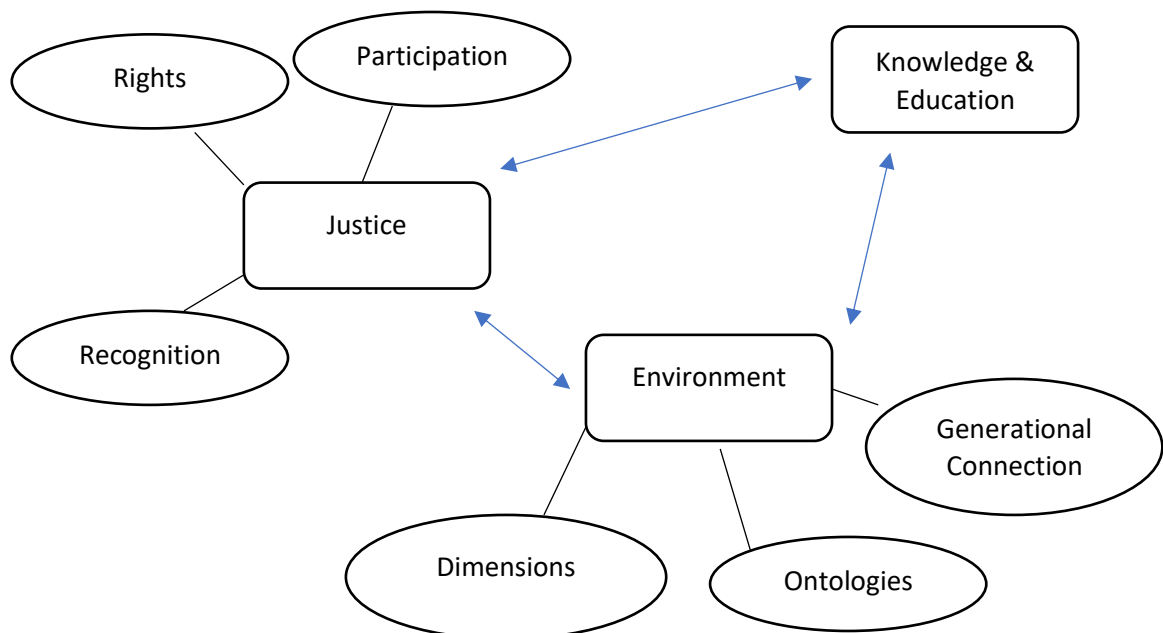Figure 1. *Overview of Themes and Subthemes*

Figure 2. *Connections between Themes and Subthemes*.

Before I move on to the next chapter, I will elaborate on my process of coding and developing themes. The process of coding the documents of the Munduruku left me with very complex and rich codes and themes which are **highly interrelated**. Since the process of coding and developing themes is subjective and interpretive, there are countless other ways for codes and themes with the documents at hand. While I clustered the codes into best fitting themes, these are in no way strict categories, but merely a fluid way to organise the data at hand. Especially in this context the themes are - as the graph shows - highly connected and interrelated with each other. The various codes can potentially be placed in different themes which is why I will make good use of cross-references within the analysis. Within the coding I **used both semantic and latent codes**, depending on the content. For instance, topics such as the environment, knowledge, decision-making, and consultation within participation processes were explicitly mentioned by the Munduruku themselves. Other dimensions such as 'justice' were more latent and accessible through different building blocks of semantic codes such as the consultation, and demarcation.

This also correlates with the naming of my themes. I am using a **combination of content- and theory driven** coding process (Clarke and Braun 2016, 298). In practice, I attempted to create the themes and codes rather from the Munduruku testimonials than from theory to let their conceptions, claims, and important dimensions become most visible. This also relates to the theoretical framework in which a better connection between theory and practice especially in the context of indigenous communities is demanded, i.e. adjusting the theory based on the community`s claims and perceptions. This means that I created certain themes such as 'Knowledge & Education' or 'Generational Connection' content driven. I further used the terminologies of the Munduruku such as the category of 'land' or 'rights' to emphasise their claims and conceptions.

Nevertheless, it is impossible not to be influenced by theory in the coding process which is why during the coding process I referred back and forth between theory and content, i.e. also used a theory-driven approach. This is especially relevant since my research question is guided by the theoretical framework and contains two of the main concepts 'environment' and 'justice' which consequently became my two main themes. However, in the creation of themes I did not attempt to make the content fit the theory: the naming of the themes results from either because the Munduruku themselves named it or because it was the best suited terminology. This became very apparent with 'Participation' and 'Recognition'. The Munduruku themselves used

terminologies such as respect, decision-making-processes, or consultation which could be best clustered in the terminology of the EJ framework.

4.4 Limitations

4.4.1   Methdological Limitations

In this chapter I will address certain **limitations and methodological considerations** that arose during the research process. Besides the already above-mentioned limitations, the first limitations that needs to be addressed, arises from my choices of methodologies and theoretical framework. While I chose specific theories, concepts, and methodologies because I find them most suitable, it simultaneously brings limitations and certain considerations with it. A different theoretical framework or research question applied to the case study of the Munduruku will bring different findings and answers as the focus shifts. For instance, my last project of the Munduruku with a theoretical framework of social movements focussed on different aspects of the case such as identity and resource mobilization. Similarly, as shown in the chapter of the case study, the same theoretical framework applied to another case might bring different outcomes and answers to the research question.

In this context I am pointing out the **timeframe and political** context I am looking at. As presented in the chapter of 'Data Collection' I am using sources by the Munduruku from 2013 to 2021 throughout different presidencies (namely Luiz Lula da Silva, Dilma Rousseff, Michel Temer, and Jair Bolsonaro), meaning that the political context, its positions towards indigenous communities, land uses and rights, drastically changed in Brazil. The Munduruku's struggle for their land and their rights in Brazil is not new and did not start under a certain presidency or political context, but structurally reaches far back. I acknowledge the importance of considering the political context along with its indigenous policies, political goals, and values, as well as the rising or lack of opportunities for the Munduruku. A consideration of the political context would be valuable as it could detect any changes of the Munduruku's perception and understanding of environmental justice. However, for the research at hand I will focus on the overall understanding and how it fits with the EJ framework.

Alternatively, the method of **data collection** in this project could be paired as triangulation with other methods of data collection such as qualitative interviewing or ethnography. This would further enhance the project and include more agency and voices of the Munduruku themselves.

It also would give more insight into the understanding of the culture, cosmologies, and worldviews within their own context (Bryman 2016, 424). Therefore, it also would be suitable to deepen questions about 'justice' and 'environment' which as might arise within the analysis of the documents. The expansion of the understanding of environmental justice through other forms of data collection are a promising point of departure for future extended research on this case.

Furthermore, due to limited Portuguese knowledge, I mainly rely on literature and sources in English or those translated into English or German.

To summarize, my choices of the theoretical framework and methodological approaches both support my research and limit it. They were chosen for their suitability to best answer the research question. However, it is important to note that there are diverse layers, aspects, power-dynamics, and contemporary issues surrounding the case of the Munduruku. The research at hand can only illuminate certain parts of it and does not seek to, and cannot, be a complete work on this case.

4.4.2   Role as Researcher and Positionality

Next, I am addressing my **role as researcher**. Illustrated by the first half of the chapter, research is about making choices (Lamont 2015, 21). Hereby, it is important to note that through every choice and more broadly through research I create new knowledge and bring social realities into a new context (Lamont 2015, 19). For instance, the case in this thesis as such does not exist on its own and I take an active role in creating and defining it, i.e. I am "casing" (Della Porta and Keating 2008, 229-230). Through defining 'What is my case?' as well as selecting theoretical frameworks and methodologies I am creating, interpreting, and translating it (ibid.). Therefore, following my epistemological stance of interpretivism, I am aware that as a researcher I am inseparably connected to my research and alter it, i.e. my research cannot be impartial or objective.

Consequently, my own **ontologies, worldviews, experiences, and understanding** of the world are included in my research through the interpretation and production of knowledge. It is important to acknowledge that I as researcher bring my subjectivity, i.e. my views, perspectives, frameworks for making sense of the world etc. into the research (Clarke and Braun 2013). It especially important in this research since I am researching marginalized communities in a context that differs to mine. I have been brought up in a 'Western' context which shaped my

worldviews and I can therefore only analyse and interpret the case at hand of the Munduruku through my own lens and understanding. It is important to note that this may vary drastically from the belief systems, cosmologies, ontologies, understandings of the world and of 'environment' and 'justice' in particular of indigenous peoples and the Munduruku in specific. While I do my best to grasp the Munduruku's understandings of the world, I might not be able to fully comprehend them. This aspect is essential since the whole thesis circles around belief systems and conceptualizations.

How, do I position myself within this research? I am from Germany and do not belong to a marginalised community or minority, hence, never having experienced anything closely resembling the struggles of the Munduruku. I come from an academic background of history and social anthropology with a special focus on colonialism, indigenous peoples, and power-dimensions in Latin America. The academic background certainly influenced me, hence, the inclusion of the concepts of coloniality. My practical work experiences in Brazil under the premiss of UN SDGs to reduce inequalities - while I would not experience inequalities myself due to my background - shaped my perspectives on discrimination based on ethnicity, gender, and class, human rights, and overall inequalities in Brazil.

Another point am adding here is that one major limitation of case studies, since they are heavily reliant on theories, are ill-suited or lacking theoretical frameworks (Della Porta and Keating 2008, 236). In consequence, research might appear biased or ethnocentric (ibid.). Similarly, as described in the theory section, one major critique is the 'Western' perspective of the EJ framework and the lack of decolonization. My goal with the research at hand is to address this problem and explore the applications of the theoretical framework and its critique in the case of the Munduruku in Brazil. It might be a paradox that I am attempting to write from the same 'Western' experience that has been criticised. I see my role as researcher not to talk for or instead of the indigenous movements asking for environmental justice but instead to listen to their claims and understandings and actively bring this into a theoretical context. As written earlier, I this way follow a research approach in which the belief systems and perspectives of the Munduruku are in the centre, i.e. I attempt to understand their ontology through their view and documents as much as possible within interpretative research and my own experiences.

I believe that while there have been great advancements to critically reflect on issues such as environmental injustices and coloniality, it needs further conceptual reflection, education, and attention to ultimately shift power-dimensions and reduce structural inequalities. While people who directly struggle with environmental injustices such as indigenous communities as the

Munduruku proved that they can speak up for themselves and lead, it is important to raise their voices, awareness, and support within and from all societies as coloniality, structural inequalities and power-dimensions are reproduced on a daily basis. Hence, as a researcher I can contribute to raising awareness, and drawing the connection to concepts of coloniality.

5   Analysis

In the analysis I will explore the Munduruku documents according to the in the methodology mentioned themes. Within the analysis I will explore the themes, conceptions, and terminologies of the Munduruku and conceptualise it with my theoretical framework later in the discussion.   The themes which I have created will merely function as guidance. The categories, themes, and dimensions are fluid and interrelated within the Munduruku speeches and documents. Therefore, I will do my best to disentangle and analyse these connections without breaking them apart. Firstly, I will explore the theme of 'environment'. Afterwards I will analyse the testimonials regarding 'justice'. Lastly, I will address 'knowledge and education'.

5.1   Environment

The environment which the Munduruku live in and with is a central dimension within their struggle, their claims, and conceptions. A central question I will address is what the 'environment' means for and to the Munduruku and how they are perceiving their connection with it. This includes a generational connection to the land, cultural, spiritual, and physical dimensions, as well as the relationship and ontologies of the Munduruku with it.

The Munduruku do not directly use the terminology of 'environment' itself. Under 'environment' I gathered all dimensions that connect the Munduruku to non-human elements surrounding them which could be the land, river, territory, or nature.

When looking at the protocols, letters, and speeches by the members of the Munduruku, it becomes clear that there is a broad, fluid, and entangled understanding of the environment and its terminology that carries diverse meanings. They refer to it as territory (*território*), land (*terra*), or simply house or home (*casa*). Additionally, I can find expressions such as "nature"

(*natureza*), "our forest" (*nossa floresta*), "our river" (*nossa rio*) as natural elements of the environment.

5.1.1   Generational Connection to Land

As a first dimension I will introduce the Munduruku's **generational connection** to the land. Through the documents it becomes very apparent that the Munduruku have a connection to their land that is highly related through generations, both past and future. The Munduruku often refer to their ancestors who already lived on the land for many generations: "*Our Great, great- and great grandparents tell us stories about the elderly, who lived in the region of the lower Tapajós. We know that our ancestors lived in our territories until today*" (Gegenströmung 2019; own translation into English). It shows a sense of continuity, in which the same land the Munduruku live on today was also the land of their ancestors. It further transfers cultural practices that are connected to the land. Elders after elders within each generation refer in their stories to the last generations and carry on this tradition of storytelling about the land they live on. This way, the storytelling becomes a cultural practice that is being shared over generations and, depending on the context of the stories, transmit Munduruku values, history, and traditions.

This connection to ancestors can also be seen for instance in this segment: "*We are warriors of the Munduruku and we will continue with the auto-demarcation of our territories with our groups of warriors, and we will further fight for our land, just like our god Karosakaybu gave it to us and instructed our ancestors*" (Gegenströmung 2018; own translation into English). The land was given by one of their gods, making it part of their religion that their ancestors already practiced. Moreover, since the land was given directly and lived on ever since, it is not interchangeably, i.e. it is not only the cultural practice over time and generation that creates meaning and connection, but the land itself and its spiritual dimension. Hence, the generational connection to the environment carries aspect of physical belonging, cultural and spiritual heritage, as well as the relationship with relatives and ancestors.

This connection goes hand in hand with a wish to pass on the land to children and future generations. This can be seen for instance in the following abstracts: "*We will continue to walk the path of autonomy of our peoples to keep our territory in freedom, to pass it on to future generations.*" (Gegenströmung 2018; own translation into English) and "*We will further defend the house of our ancestors, our peoples of the Munduruku, so that future Generations, our children and grandchildren also have a protected territory, and can live there our way of life and cultivate our good life.*" (Kooperation Brasilien; own translation into English). For the

Munduruku it is important that their children and descendants are able to live on their land and
continue living the Munduruku's way of life or a 'good life'. This means, to have land they
can live on in freedom, without persecution or threats by governmental development or illegal
activities. The freedom to live on the Munduruku territory goes along with continuing cultural
and spiritual traditions, as well as sustaining themselves as I will show at a later point. The same
way the Munduruku can draw on their ancestors now, pass on the cultural and spiritual stories
of the elders, their traditions, and experiences, this way they want to offer their children and
grandchildren. The generational connection gives a sense of belonging, continuity to their
cultural and spiritual practices shall be continued in future generations.

The generational connection highly relates to the question of **rights to land** as well as
colonisation which I will introduce now and further explore in the chapter of "Justice". The
question of 'who does this land belong to?' stretches over centuries, from the first moments of
colonisation to current struggles with demarcation. From the first colonisation, the Munduruku
fought and resisted for their land: "*It has been over 520 years in which we are showing
resistance and we will not stop now! We will continue to fight for and defend our territory*!"
(Kooperation Brasilien 2020; own translation into English). The land belongs to them, since
they "*are much older than 519 years*" which was when the area that is now Brazil was colonised
(Mongabay 2019).

It is noticeable that the Munduruku often use terminologies such as 'fight' or 'defend'. As my
first project about the Munduruku mobilisation shows, the **Munduruku identify as warriors**,
drawing on the resistance and fights of their ancestors. This call on their ancestors both creates
a collective identity for the Munduruku movement and further legitimises their right to land
(Okkels Andersen and Gruner 2020). The Munduruku draw from a long line of resistance
against colonizers that gives them strengths to continue against the Brazilian government
currently. This further emphasises the dimensions of cultural heritage, the rights to land, and
the importance of generational connection regarding the question of what the environment
means to the Munduruku.

5.1.2   Cultural, Spiritual, and Physical Dimensions of Environment
In this chapter, I will go further in depth into the **cultural, spiritual, and physical dimensions**
of the environment for the Munduruku. This connection between environment, subsistence,
cultural and spiritual practices may become clearer when looking at the description of their
territory in the Munduruku letter from 2013 (Socioambiental 2013) and the map of life which

the Munduruku created supported by Greenpeace Brazil (Moviento Munduruku Ipereg Ayu et
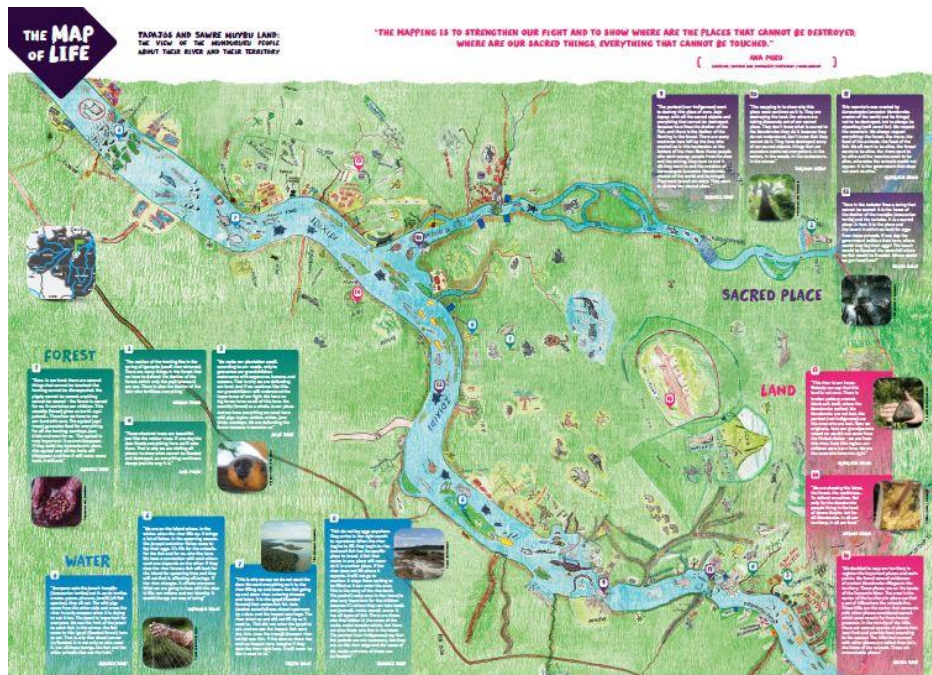al n.d.).

Figure 3. "Map of Life". Moviento Munduruku et al. n.d. Ipereg Ayu.

The "map of life" shows the territory of the Munduruku *Sawre Muybu* through their eyes and
was created to raise awareness about the Munduruku struggles and to ultimately defend it
(Moviento Munduruku Ipereg Ayu et al n.d.). Each place drawn on the map carries meaning
which is either for physical, spiritual, or cultural subsistence – or all of the above. In the map,
the places are differentiated by categories of 'land', 'forest', 'water', and 'sacred places'. Many
times, these categories intersect, for instance sacred places could be connected to land or water
as well.

Firstly, I will look at the **spiritual and cultural dimension**. I will not draw a sharp line between
cultural and spiritual dimensions as they are closely related, and a separation would not be of
any use. The sacred places and their destruction through the development and mega projects by
the government and companies are a central focal point within the Munduruku's argumentation
for land rights. The land is a direct link to being able to continue with spiritual and cultural
practices since 1. sacred places directly lie within this territory. 2. Cultural and spiritual
practices are centred around elements of the environment.

There are countless examples of sacred places in connection to Munduruku religion and land
within the letter of 2013 and the map, however, a suitable one is the *Chachoeira de Sete Quedas*

(*Paribixexe*): "*these are beautiful falls, containing seven stages in the shape of steps. It is where the dead live, the sky of the dead, in other words, the world of the living, the reign of the dead. It is a sacred place to the Munduruku.*" (Socioambiental 2013). The waterfalls are a sacred place that connects the living and the dead with each other and is highly connected to spirituality and religion. Spiritual shamans can open a portal between worlds and the Munduruku bring their urns to this place, i.e. it also functions as a graveyard. The waterfalls symbolise a connection to their ancestors, to spiritual worlds and the strength of the spiritual warriors. It is also the place in which the Mother of fish is, and where species procreate which shows a connection to both the Mother of fish as a spiritual guard and nature and fish themselves (ibid.).

Since 2013, several dams have been constructed so that the Mudnuruku's sacred places *Deko ka'a* (monkey hill) and *Karobixexe* (seven waterfalls) were destroyed. Along with the construction of the hydroelectric power plant Teles Pires, the ITIG'A, the urns of the Munduruku, had been brought to a museum from which the shamans of the Munduruku later took them and brought them to another traditional place (Kooperation Brasilien 2020). The Munduruku strongly voice their thoughts and emotions about this process in which the urns were "stolen" and later "rescued". They blame the construction of Teles Pires and São Manoel for their suffering, losing their women, and the desecration of the Mother of fish and spirits (Kooperation Brasilien 2020).

Another example for the cultural and spiritual connection could be the 'passage of pigs' (*Eistreito Dajekapap*) (Socioambiental 2013). This also is a sacred place within Munduruku territory where in certain times in the summer the foot traces of *Karosakaybu* are too be seen in the rocks. This place is one of spiritual and cultural narratives and stories: in this place *Karosakaybu's* son was taken to another margin of the Tapajós by the pigs and he was lost. *Karosakaybu* in return left a *surucucu* snake there to bite everyone who passed by so that nobody could pretend to be god. For the Munduruku this place is considered dangerous up until this day for anyone who passes it. If such sacred places are violated or altered, especially by non-indigenous people, it carries consequences such as accidents or – as I will show later – environmental catastrophes (ibid.). The story of *Karosakaybu*, his son and the pigs demonstrate for one a spiritual connection of the land, the specific rocks and passage, and the Munduruku spiritual warriors and gods. It also demonstrates a cultural connection to the natural elements and the place itself. The stories and narratives of spiritual warriors are directly linked to stone formations and certain places. The act of storytelling as a cultural and communal practice can carry - besides the spiritual element - also Munduruku history, values, and (historical) identity.

Another important dimension, very practically, is that the land means for the Munduruku their **physical subsistence**, a source for **food and financial livelihood**. The rivers, forest, and land offer food to the Munduruku in the form of fishing, hunting, or plants and fruits. This becomes very clear when looking at this abstract about the lake Maica in the Amazon basin: "*The lake is an ecological and socio-economic heritage of the region. Hundreds of families rely on the lake Maica to maintain their livelihoods and financial support, especially through fishing.*" (Gegenströmung 2019; own translation into English). Through the construction of dams, the Munduruku, as well as other communities living in the region, will lose their main source of food, the fish. This also brings health implications, since through legal and illegal activities in the region, the water is being contaminated with mercury amongst other substances. This way both drinking water and fish for consumption bring health risks to the communities that rely on them (Kooperation Brasilien 2020; own translation into English).

However, not only humans depend on the land to for substance:

> "*Everyone eats the jauari: tracajás [Amazonian turtles] eat it, as do turtles, aracus, pacus, pirarara, jundiá [all fish species], they all eat. The wild pigs come from the other side and cross the river in early summer when it is drying to eat it too. The jauari is important for everyone. We use the fruit of the jauari to catch fish. In the winter, the fish come to this igapó [flooded forest] here to eat. That is why this island cannot be flooded, it is not only us who need it, but all these beings, the fish and the other animals that eat the fruit.*" (Moviento Munduruku Ipereg Ayu et al n.d.)

As this segment exemplifies, the Munduruku not only think of their own source of livelihood and food but also about the animals which may not even be separable through a western dual perspective of "humans" and "non-humans". It may be rather understood as a cycle that is connected with humans in it: fish and other animals eat the fruit of the jauari and these fish and animals are then food for the Munduruku community. The Munduruku are part of it this cycle, the forest, and the rivers. They want to "defend […] the forest because it sustains us" (Moviento Munduruku Ipereg Ayu et al n.d.). In this sense, the land is important for the Munduruku community and their food source, the animals that live in them as well as biodiversity.

Furthermore, issues of food sources, animals, and biodiversity are connected to sacred places:

> "*Here in the boiador lives a being that cannot be moved: it is the home of the Mother of the tracajás [Amazonian turtle] and the tortoise. It is a sacred place. In fact, it is the*

place and the beach in which we look for eggs from these animals. If one day the government builds a dam here, where would they lay their eggs? The beach would be flooded, the waterfall where we fish would be flooded. Where would we get food from?"
(Moviento Munduruku Ipereg Ayu et al n.d.)

The Mother of tracjás and tortoise lives in the sacred place of boiador – it may also be sacred because she lives there to begin with – and the sacred place would be destroyed through the construction of dams. The destruction of the place would mean threefold for the Munduruku: a violation of a sacred place for the community, lack of food sources (the eggs) and an intervention in the lives of the turtles and tortoises as well as their sacred Mother. This example further enhances the connection of sacredness or religion, subsistence, and lives of the animals. The environment supplies the Munduruku with food and at the same time – or because of it - takes part in the Munduruku religion as a sacred being that should be protected – for its sacredness, as a source of food as well as for continuity of spiritual and cultural practices.

This chapter showed that for the Munduruku the environment has various meanings, namely cultural, spiritual, and physical. The Munduruku and other beings depend on the environment for their subsistence. The **dependency of the Munduruku on the environment** becomes very clear in the next two statements:

"*On that we may preserve our relationship to and with the forest and rivers! We depend on the nature to continue to exist physically and spiritually! The enchanted spirits who protect us and grant our life continuity, depend on the forest and rivers. When they [the government] kill the forest and rivers, then they [the spirits] and our peoples die with them.*" (Gegenströmung 2019; own translation into English).

This segment shows very drastically that for the Munduruku the destruction of the Amazon and its rivers, would mean death for the Munduruku and their spirits. This can be understood figuratively in the sense that through the destruction of the land, the Munduruku would not have their connection to the land anymore, hence missing their cultural and spiritual connection to the land and spirits. However, it can be understood very literally. Lack of food sources, threat of health through contamination as well as death in conflict with armed forces in the defence of the land are all very real threats to the lives of the Munduruku. Furthermore, as the next segment shows, how can the community live, truly live, if their way of life is not possible?

"*It's life for the animals, for the fish and for us, who live here. We have a connection with each other; each one depends on the other. If they dam the river forever, fish will*

look for the island for spawning time and they will not find it, affecting all beings. If the river changes, it affects everyone. What we are going to lose with the dam is life, our culture and our identity. It would change our way of being." (Moviento Munduruku Ipereg Ayu et al n.d.).

This segment shows more clearly what the destruction of the land would mean to the community. Their culture, their identity, their whole core of being would be lost – or to refer to the upper paragraph, it would die – through the destruction. Alessandra Korap Munduruku refers in one interview to something similar, that "everything is dying: the way we eat, the way we live, our language" (Mongabay 2019). For the Munduruku the building of the dams and the destruction of the land would mean a drastic change in their way of life encompassing every part of their lives from food, to religion to cultural practices. The question is, if all of it is gone, can a community truly live? For the Munduruku the answer is clear, it would mean to die, the forest, the rivers, their traditions, and they themselves would die. This shows very drastically how impactful such development on the territory would be and how much the Munduruku and their way of life depend on the land. All actors are connected to the land and depend on its continuance: the Munduruku community, the nature, and the spirits within it.

5.1.3   Ontologies and the Relationship with the Environment

As the sources show, there is no real differentiation between the land and the nature which the Munduruku live in and on. Land, forest, water, and sacred places somehow all relate and belong together within various dimensions. Alessandra Korap Munduruku for instance mentions in one interview, that there indeed "*is no separation between the forest and us, so it means an impact on everything*" (Mongabay 2019). Therefore, I will closely explore the **ontological understanding and the relationship** which the Munduruku have with the environment surrounding them. This also includes aspects of **respect, protection, and development**. How does this connection look like? And how may it differ from a 'Western' understanding?

As the chapter above shows, the destruction of the environment would affect all beings living there since all are connected and depend on each other for subsistence. However, the understanding the Munduruku have of the environment not only resembles a dependency but equals a **relationship**. The Munduruku and the land and nature have a connection and relationship that is based on **reciprocity and respect**. This can for instance be seen in the following segment:

> "*We always respect everything: the forest, the rivers, the food of the animals, the food
> of the fish. We all want to be alive, the forest wants to be alive, the rivers want to be
> alive and the beaches want to be alive, otherwise the animals would not appear. It is the
> government that does not want us alive.*" (Moviento Munduruku Ipereg Ayu et al n.d.).

For the Munduruku natural elements such as forests, rivers, and beaches want to be alive, i.e.
have desire on their own which in a 'Western' conceptualisation might not necessarily be
attributed natural elements. The nature is perceived as an element that is alive and
communicates. It closely resembles a relationship of **motherhood** which can also be seen in
the used terminologies such as: "Mother Earth", "Mother Water", or "Mother forest". This
relationship of motherhood becomes further apparent for instance in the following statement:

> "*We defend the river which for us is like mother's milk that we give to our children every
> day. The land is our mother for which we have the deepest respect and over which we
> will never negotiate*" (Gegenströmung 2018; own translation into English).

Environment is like a mother for the Munduruku, meaning that they have a deep connection
and relationship in which the land as a mother guards and takes care of them, feeds them, and
teaches them. The rivers, subsequently, or natural elements in general for that matter, are for
the Munduruku like "mother's milk" which sustains them every day which shows the
connection to food sources. The elders of the Munduruku taught them to respect and protect
"Mother Earth" and "Mother Water" which they want to pass on to their children in return
(Gegenströmung 2019). The generational connection further shows through the "mother's
milk": a cycle of life over generations. The river sustains the children, the future generation
which is most precious and shall have the above-mentioned 'good life'. The care which the
Munduruku show towards their family, community, and children extends towards "Mother
Earth" and shall be respected the way one would respect one's mother. However, it could also
be looked at from a different angle: "Mother Earth" cares about the Munduruku the way a
mother would for her children. Every place has a mother that guards it (Gegenströmung 2019).
The takeaway from this is that the relationship between the Munduruku and the environment
"Mother Earth" is very deeply connected and grounded in respect, protection, and caring.

Semantically, it is noticeable that the Munduruku place themselves within their argumentation
on the side with animals, the forest, rivers etc. against the government and the *pariwat*
(Munduruku terminology for enemy or White people): every actor or element wants to live but

the government or *pariwat* do not want them to be alive and contribute to their killing. This contrasting or 'othering' is a technique which I wrote about in the previous project about the Munduruku and may amongst others be a mechanism to strengthen the collective identity of the movement (Okkels Andersen and Gruner 2020). It demonstrates a **clash of values or ontologies** between the Munduruku as an indigenous community and the government or Western corporations. The Munduruku refer to their relationship with the land as something that "non-Indians will never understand" (Socioambiental 2013, 3). Here, the difference in understandings, conception, and ontologies becomes very apparent.

In the following I will take a closer look at the clashing ontologies and how the Munduruku voice these in their statements. As I demonstrated above, the land is alive and stands in relation to the Munduruku the way a mother would. This also means that the land, or 'Mother', is not a good which could be sold, exploited, negotiated for, or otherwise violated. The Munduruku community voices this very strongly and repeatedly for instance in: "*We don't want compensation. We want our rivers and our forests alive*" (Kennedy Award for Human Rights 2020) and "*Our land is not a commodity!*" (Kooperation Brasilien; own translation into English). For the Munduruku the projects on their land and in the Amazon are related to greed, motives for profit, and international and national (agrarian-)businesses.

The Munduruku want to live their lives without "poison and motives for profit" (Gegenströmung 2018; own translation into English) and therefore take only what they need for their living from the environment. The following segment exemplifies this notion which stands opposed to the profit-driven activities in the territory:

> "*We make our plantation small, according to our needs, only to guarantee our grandchildren sustenance with sugarcane, banana, and cassava. […] We have no big farms here; so all of this here, the awaidip (forest) as a whole, is our place. And we have everything we need here: wild pigs, tapirs, catitus, cutias, jacu birds, monkeys. We are defending the forest because it sustains us."* (Moviento Munduruku Ipereg Ayu et al n.d.)

This statement further emphasises the reciprocal relationship in which the Munduruku do not exploit their land for profit, but cultivate small farms, just enough to sustain themselves and their children. Following the line of thoughts of the Munduruku, seeing the land as a mother, why would one exploit and destroy it, i.e. eliminate food sources and spiritual connection? For the community, the *pariwat* destroy and eliminate the forest "*without a reason*" and they clearly

differentiate themselves from this practice (Gegenströmung 2018; own translation into English).

For the Munduruku community, their way of life is the one **that protects and sustains the forest and rivers**: "*The Tapajós River only has many parts that are still clean because of our struggle. Just look and see how the indigenous peoples have been living [in the forest] for hundreds of years, and the forest is still alive too.*" (Mongabay 2019). This statement shows a sense of critique of how non-indigenous people live and treat the forest. For the Munduruku, their way of life means that the forest can live and survive too which is proven through the continuance of the forest and of indigenous communities living within it. Furthermore, it is due to the Munduruku's efforts and struggles that parts of the rivers and lands are clean. This goes hand in hand with the idea that disasters will happen if the environment is being mistreated. If alterations are made to the environment, it will have terrible implications for all societies. For the Munduruku, the environment "hides" from the humans because they destroy it, resulting in climate change and disasters (Socioambiental 2013).

The **critique of the development, mega-projects and 'Western' way of life** is a recurring topic within the testimonials of the Munduruku community which is why it is worth having a closer look. For the Munduruku it is "they", the "*pariwat*" who want to sell and exploit the environment vs. the Munduruku who are defending the environment (Kennedy Award for Human Rights 2020). For the Munduruku there is no "sustainable development" as it is always necessary to deforest and flood the area for or re-settle the people who live there (Mongabay 2019). This stands in direct relation with what values are behind it:

> "*We know what their interests are, economic interests, they have no love for life. For we have love for people, we know how to respect them, we know how to share, there are no poor people among us, we are all equal, we know how to share with those that have nothing. [...] we do not favour or discriminate people. In our world, this does not exist, we only have love, respect, peace, humility, sincerity. We live happily without having money, without mansions to live in, without material goods. Life is more important, money does not bring us happiness, only misery.*" (Socioambiental 2013).

In the worldview of the Munduruku, material goods, money etc. are neither important nor valued. If greed for money comes in, it means to lose the love and respect for life and the things that are important in it (ibid.). As I will add to in the following chapter, one of the values is also

respect and equity for both people and the environment. This stands in great contrast with 'Western' neoliberalist worldviews and ultimately cannot be united.

> "*Just look at the data, which shows that the energy generated in the Amazon does not go to our communities. It goes to the products that are exported to Europe, to other regions of the country, to agribusiness, to industries. However, as a result, people who live along the river will drink contaminated water*." (Mongabay 2019)

While the Munduruku and the environment they live with suffer from the consequences of exploitation, other parts of the world are on the receiving end of the benefits such as energy, soy products etc. The Munduruku critique these structures and practices, however, also state that even if they were to receive the benefits they would not want these practices if it meant destroying the environment (ibid.). Within this power-structures, the Munduruku also turn to the international community to boycott Brazilian agrarian products as they directly impacts the Munduruku's lives (Kooperation Brasilien; own translation into English).

Across the documents **protection** plays a major role. This protection, too, is based on reciprocity. The nature or "Mother Earth" gives the Munduruku food, spiritual and cultural continuity, and its spirits guard and protect them. In return, the Munduruku protect "Mother Earth" against potential threats. These threats may be the destruction of the land, forest, water, or sacred places. Within the documents, speeches, and testimonials of the Munduruku contrasting ontologies shine through within the arguments. The Munduruku's relationship with the "Mother Earth" is opposed to a 'Western' conceptualisation in which the land is destroyed, violated, and exploited for its resources.

Because of the contrasting conceptions, ontologies, and goals for the land, the Munduruku's goal is to protect their "Mother Earth" against the government and White people who aim to exploit the land: "*Our fight will always be for the defence of our rivers, the demarcation of territories denied by the State and the government. We will never give up the mother earth who always gave us freely water, life, and forest without ever charging us*." (Kennedy Award for Human Rights 2020).

5.2 Justice

In the following chapters I will take a closer look at how the Munduruku understand 'justice'. While the theme of 'environment' analysed the Munduruku's relationship with the land and the environment, the theme of 'justice' explores the relationship of the Munduruku with other (human) stakeholders such as the government. This includes conceptions of justice and its underlying interconnected dimensions of participation, recognition, and rights of indigenous people and Brazilian citizens. In this theme, the connection of social justice and environmental justice becomes especially apparent.

Similarly to 'environment', the Munduruku do not explicitly use the terminology of 'justice'. However, the concept shines through as a strong underlying dimension within the documents and speeches.

5.2.1 Rights

One major sub theme within the testimonials of the Munduruku is the aspect of rights, including rights to land, rights as indigenous peoples, rights as citizens of Brazil. More than the other themes it includes a legal dimension as for instance the ILO 169 or the official demarcation of territory. This chapter aims to highlight the importance of legal rights and official demarcation perceived, understood, and referred to by Munduruku in the context of justice.

Firstly, I am referring to the generational connection to land or environment that the Munduruku have. I could not talk about rights and especially **rights of indigenous peoples** to land without bringing up **colonialism and coloniality**. As I showed in the chapter of "Generational Connection" the Munduruku have a generational, cultural, and spiritual connection to the land that dates back long before Brazil and the territory of the Munduruku was colonised. Simplified, the Munduruku base their current claims for land on this generational connection, the colonisation and its connected dispossession and exploitation of indigenous peoples and their land (Okkels Andersen and Gruner2020). The Munduruku rarely directly refer to "coloniality" or "colonialism" directly and more often this dimension is to be found more or less latently within their claims. The following is an example of Alessandra Korap Munduruku mentioning this issue in her acceptance speech of the Robert F. Kennedy Awards for Human Rights in 2020: "*Colonization has not yet stopped, it continues.*" (Mongabay 2019). This shows that while the Munduruku do not use the terminology of 'colonialism' or 'coloniality' frequently in their discourses and testimonials, they connect their struggles with it.

Given this dimension of colonialism and land rights, it is not surprising that the **demarcation of Munduruku territory** is one of the main claims I could find within their testimonials, for instance seen in this statement: "*We want, that our territories are demarcated*!" (Kooperation Brasilien 2019; own translation into English). In Brazil, the agency of Brazilian National Indian Foundation (FUNAI) was responsible for the demarcation of indigenous land (FUNAI n.d). The legal side of demarcation is further complicated under the presidency of Bolsonaro and the measure MP870 which shifts the jurisdiction of the demarcation of indigenous territories from FUNAI, and the Ministry of Justice, to the Ministry of Agriculture, Ranching, and Supply (Wapichana, Dep. Joenia. 2019; Kooperation Brasilien 2019). Without going much into detail of the politics and governmental ministries of Brazil, it is clear that the position of indigenous peoples and their fight for the demarcation of land is weakened under such measurements – and in general under a political direction that does not embrace indigenous claims. The Munduruku directly critique Bolsonaro's direction regarding development and indigenous policies and the increased accompanied struggles of demarcation (Gegenströmung 2019).

However, the struggles with their right for lands, the demarcation of Munduruku territory, and the anger with the government did not start with Bolsonaro's presidency but reach further back. In the letter of 2014, the Munduruku write this about their struggle with demarcation:

> "*We know that the report is ready. We have the video from FUNAI's Presidency admitting that the demarcation has not occured [sic!] due to [plans for] the hydroelectric dam. The government is not acting in accordance to the good faith required for the consultation (Convention no. 169, Article 6). We will never accept to be moved [from our land]. And we know that the Constitution is on our side*!" (Amazonwatch 2014)

Firstly, this shows how much and long the Munduruku are struggling to have their territories demarcated. The demarcation of Munduruku territory is deeply embedded in the context development plans for the area, in this case the construction of hydro-electric dams. Whether or not this video, i.e. the reason behind it, exists, I cannot say, however, I will address the connection between development plans and demarcation below. Secondly, the statement is a good example of the Munduruku's pleading on legal grounds such as the constitution of Brazil, the UN declaration for indigenous rights (UNDRIP 2007), and the ILO 169. The ILO 169 defines free, prior, and informed consultation of indigenous communities, recognition of land rights, self-determination and other legislations impacting indigenous communities (ILO 169a; Chase 2019, 2). Brazil ratified the ILO 169 in 2002 (ILO 169b). This is an essential instrument

and resource in the fight for land rights, demarcation, and justice in general as it gives the Munduruku a legal resource to enforce their demands (Okkels Andersen and Gruner 2020).

The following statements exemplifies the tension between the Munduruku and the Brazilian government, in which the Munduruku express that the government has failed them:

> "*In the face of the facts related about our situation, we communicate that we are outraged by the way in which the Brazilian government has been treating us. We see the disrespect to our people, the Constitution is being torn, it's being nullified, we do not have our rights guaranteed by it. Now, our own territory has become a battleground, where we are being exterminated, assassinated by the government's armed forces. We no longer have the right to call out and be heard, no one is coming to our rescue while we plea for help. The Armed Forces police should ensure our safety and protect us. We see that this is not happening, everything is the opposite of what is should be. The government is using violence to undertake research studies so it can build its developments in indigenous territories*." (Socioambiental 2013)

This example shows the interconnection of the different dimensions within this very well: dimensions of recognition, respect, protection, and validity of legal grounds. There is a lot of anger, disappointment, or simply "outrage" to be seen from the Munduruku about the way the government treats them: The constitution and laws which they are pleading on are not fulfilled, their rights are being ignored, and dimensions of recognition and participation are lacking. Even worse, the Munduruku describe their land as a "battleground" in which the government who was supposed to protect them, uses strong violence, and even kills the people. This testimonial carries intense and strong emotions in a severe situation. If the legal grounds which the Munduruku refer to are ignored by the government whose responsibility it is to enforce it, then how can they keep their rights?

Lastly, I will refer to the chapter of clashing **ontologies and the role of the environment in the context of demarcation**. How do clashing ontologies connect to rights in this case? As the quote about the prolonged process of demarcation due to the governmental plans above showed, the demarcation of the Munduruku territories is highly connected to a variety of dimensions in which development plans and profit play a major part. Further, as I explored under 'Ontologies', the understanding of the environment means something else for the Munduruku and for non-indigenous people, and in this case that of the involved stakeholders such as the government

and corporations. The aspects of different ontologies, how the different actors understand the environment, profit, and ways to use it as well as the role of humans, non-human-actors, and marginalised communities play a major role in the struggle for land rights. This may not be surprising since the struggle for indigenous land rights does not happen in a vacuum between indigenous communities and the government who may grant these rights. These dimensions also become apparent within the Munduruku documents: „*The government has never respected our rights, to live on and with our land, they always stand on the side of profit seeking.*" (Gegenströmung 2019; own translation into English). This statement shows the close entanglement of rights and recognition, which the latter I will explore more below. The Munduruku feel disrespect of the indigenous ways of living on and, importantly, with the land, i.e. as indigenous peoples and their rights which is done in favour of profit for the government. In other words, for the Munduruku, profit as one obstacle stands in the way of the demarcation of land and the Munduruku's rights and way of living.

However, not only the government or the president are pointed out but also the heads of companies that seek to utilize the Amazonian region for land or resources (Gegenströmung 2019; own translation into English). The connection between demarcation and profit is further shown in this statement:

> „*Furthermore, in the Region Maicá lays the indigenous Munduruku-Apiaká territory of the Santareno plateau, in which the working group for the identification of indigenous territory was stopped by the government of Bolsonaro. The region of the Santareno plateau is desired by agro-businesses for the mono-cultivation of soy.*" (Gegenströmung 2019; own translation into English)

This statement shows the anger of the Munduruku about the process of demarcation in the connection with profit, i.e. that the territory is not being demarcated because it can be utilized for profit. Not only is the land not officially demarcated, but the working group that is investigating the eligibility of demarcation is stopped. This further emphasises the anger and disrespect that the Munduruku feel, since for them it is Bolsonaro and his government who are both responsible and cause of their struggles of demarcation in the Santareno plateau.

The next statement further showcases the connection between the environment and rights:

> "*Not even the law that protects the environment exists any longer, the environmental licences are being issued even when it is known that the projects are going to impact*

peoples' lives, this is not considered, the risk they suffer, and life for them will never be
the same. The life of animals, in danger of extinction, the fish and the life of biodiversity.
The Munduruku population and other inhabitants who depend on natural resources,
whose subsistence comes from the river and the forest". (Socioambiental 2013)

This testimonial emphasises on the importance of laws not only for the Munduruku and the
demarcation of their territory, but also for the environment itself. The laws that existed to
protect the environment are either not adequate to begin with, ignored or simply overridden in
the name of development. The difference in ontologies and the understandings of environment
and profit are apparent: For the Munduruku, the projects are executed no matter how much the
local communities, both human and non-human, have to pay. Here, the aspect of **justice to the
environment** is addressed quite openly whereas in other parts its more latent. The lack of laws
for the environment itself that would protect biodiversity, the lives of the animals, fish, plants
etc. has terrible consequences both for the non-human actors and the human ones whose
subsistence depends on them. In this case the lack of rights for the environment, and the lack
of land rights for the Munduruku may equal the same consequences: destruction of the
environment along with its biodiversity and sources for food. A debate about the rights of nature
or the environment would not fit within the scope of this research, however, considering the
clash of ontologies and the different understanding of the environment, it might be an
interesting aspect to consider in this context. Nevertheless, the Munduruku do not explicitly
fight for the rights of the environment, but for their own rights for land to live on and with it.
This may mean that the environment is not exploited as a commodity and not only seen as profit
or merely source of food and resources but understood within a reciprocal relationship. This
makes it without a doubt an issue of environmental justice.

5.2.2 Participation

In this chapter I will look deeper into the above-mentioned dimensions of consultation, self-
determination, and access to decision-making which I am categorising under the subtheme of
"Participation". Throughout the documents it becomes clear that one major claim for the
Munduruku, besides the official demarcation of their territory, is to be able to decide, to be
consulted and involved in the decision-making process about the fate of the land they live on.
This becomes apparent already in the letter from 2014 which is a consultation protocol
addressing the government on how the Munduruku demand to be consulted and involved

(Amazonwatch 2014). Nevertheless, these issues are evident in all documents from 2013 to 2021 which emphasises its importance to the Munduruku.

The centre of the demands consists of the **ability to decide** for themselves on how the Munduruku land is used, who gets to live on it, and if and how projects are executed. This becomes obvious in countless statements of the Munduruku, for instance: "*We will always decide for ourselves, for our territory, for our river*!" (Gegenströmung 2018; own translation into English). This example well illustrates the desire to decide about the land and the river they live on and with since it is their territory and they consequently should have the right to decide its fate. This, however, is an issue that reaches deeper: given how many dimensions the environment for the Munduruku has, on spiritual, cultural, and physical levels, the demand to decide about the land actually becomes a demand to decide about themselves, about their lives, where and how to live, or simply a matter of self-determination.

The ability to decide for themselves can be divided into three main aspects: **the consultation, sharing of information, and inclusion of decision-making** which of course are interconnected issues. For the Munduruku, the process of demarcating their territory comes before any consultation (Amazonwatch 2014), i.e. they want to have their legal grounds established and being consulted as official owners of their territory. Afterwards, the consultation "should "come before everything else" (Amazonwatch 2014), meaning that any plans or decisions about projects should come after the consultation with the Munduruku, not before. The Munduruku voice that in many cases the government gives permission to extract natural resources or build dams in the territory of the Munduruku without consulting with them first (Kennedy Award for Human Rights 2020 ; Gegenströmung 2019). This is an aspect that is highly connected to the theme of rights and the question of who is allowed to decide about and live on the land. Since the official demarcation is still pending and legal grounds not clear, the Munduruku are not seen as stakeholders that need to be consulted, and in consequence the government decides the fate of the resources and territory.

The consultation should follow certain guidelines which are important for the Munduruku. This for instance includes who should be consulted: Munduruku from all villages, chiefs, warriors, women as each member holds specific knowledge that is of relevance within the decision-making process of the Munduruku (Amazonwatch 2014). The notion of equity within the members of the Munduruku communities is further enhanced through the demand of how the consultation process should be. For instance, the Munduruku demand to speak with decision-makers directly, without advisors, to hold the meetings in Munduruku language, and to choose

the place and date of consultation (ibid.). This may showcase the desire and demand of the Munduruku to be treated as equals, with equal powers in decision-making, or maybe even more veto-power, and to create a decision-making process in which the Munduruku are both symbolically and actually recognised.

The consultation protocol further includes the specific steps of consultation: meeting to agree on the consultation plan, information meeting, internal meetings among the Munduruku, and negotiating meeting (ibid.). I will further touch upon the internal meetings and decision-making processes later in this chapter. At this point I want to emphasise the importance of access to information which can be seen for example in the following segment:

> "*We, the Munduruku people, want to listen to what the government has to say to us. But we do not want made-up information. In order for the Munduruku people to be able to decide, we need to know what is, in fact, happening. And the government needs to listen to us. Before initiating the consultation, we demand the demarcation of the Indigenous Land of Sawré Muybu.*" (Amazonwatch 2014).

For decision-making and participation, the Munduruku need to be informed about the projects and plans, which would be through the first consultation. This also refers to the aspect of rights, and the recognition as decision-makers. If the consultation does not happen until plans have already been made, dialogue, transfer of information, and consequently the ability to take decisions are omitted. The process of sharing information beforehand creates a dialogue in which each stakeholder has the opportunity to speak and to be heard, it is in other words an exchange of knowledge, ideally creating equal opportunities for opinions. However, this is a highly complex and charged issue, that, as I will show below, requires amongst others recognition, respect, and acceptance of rights. Without prior consultation, access to information, dialogue, and recognition, a decision-making process with Munduruku cannot happen.

Lastly, I am going to touch upon an aspect within the decision-making process, and generally participation, that is highly **connected to recognition and respect**:

> "*We were never consulted, nobody told us about the government projects in our areas. And when the government talks about dialogue, it is already building hydroelectric dams on our rivers. When we positioned ourselves against the government's decision, it says it does not accept our decision, it's the government's decision that counts.[...]*

> *So what is the point in us being consulted if our decision is not considered? Where are our rights, the right to respect*?" (Socioambiental 2013).

All the above described demands are tied to the acknowledgement of indigenous rights, of the recognition of Munduruku land and its people as decision-makers. Without this respect and recognition for these aspects, consultation, sharing of information, and involvement of decision-making process, i.e. without recognition, there cannot be participation.

Consequently, the Munduruku included this aspect explicitly in the demands of their consultation protocol:

> "*We ask that our demands be answered, with great urgency:*
> *- That the Armed Forces leave our lands*
> *- That dam-related research is stopped*
> *- That hydroelectric dams stop being built*
> *- That everything that is going to happen in our lands is explained to us, that we are listened to and that our decision is respected*." (Socioambiental 2013)

The Munduruku voice their demands clearly in this statement, exemplifying the problematic of recognition in the context of participation. These clear demands, such as no construction of hydroelectric dams and the leaving of the armed forces, all this can only happen if the government actually listens to the Munduruku and their demands, i.e. recognises their demands as valid, "urgent", and to be considered. The last demand in which the Munduruku request explanations, listening, and respect of their decisions stresses its importance and overall connection between participation and recognition.

Another important aspect in this context is the **different ways of decision-making** which the Munduruku as a community have compared to for instance the way they are involved with the government. In Jens Okkels Andersen's and my (2020) previous project about the Munduruku, we established that the Munduruku's internal structure both within the community and their movement is based on a **spiritual and a communal approach**. This communal approach, in which everyone has a voice in the decision-making, even children, clearly clashes with the way the Munduruku have been treated so far in the questions about their territory. Given the way the Munduruku make decisions and consult each other within their community, and other Munduruku communities it is not surprising that this is one major demand towards the

government. The Munduruku take decisions with a consensus and through previous discussions which strongly differs from political approaches in governments, and even more clearly from the process between the Munduruku and the Brazilian government (ibid.). The communal approach can be well seen for instance in the following segment from the consultation protocol which also in the context of the current research proves to be important:

"*Our people's decisions are taken through a General assembly, called by our chiefs. [...] In the assemblies, our decisions are made after discussions: we discuss and we reach a consensus. If it is necessary, we discuss more. We do not vote. If there is no consensus, it is the majority who decides*" (Amazonwatch 2014).

5.2.3   Recognition

In the previous chapter I already touched upon recognition as a dimension that is highly connected to the other themes of participation, rights, and knowledge. Since it is such a prevalent theme within the Munduruku testimonials I want to address it separately to match its importance for the Munduruku. The Munduruku rarely directly mention the terminology of recognition directly and mostly refer to it through other terminologies such as 'respect'.

However, within her acceptance speech Alessandra Korap Munduruku mentions the **terminology of "recognition" directly**:

"*What matter is to respect more indigenous, quilombolas and riverside peoples. I want to thank you for the Robert F. Kennedy Human Rights Award for your recognition of the struggle of Indigenous peoples in Brazil and especially for your recognition of the struggles in defense of human rights. This award will help to strengthen our fight in the defense of the territory, bring hope to the resistance.*" (Kennedy Award for Human Rights 2020).

Here she is thanking the RFK Human Rights Awards for their recognition of their struggles, acknowledging how much they are fighting and resisting for their rights. As my first collaboration-research about the *Ipereğ Ayu* movement shows, international recognition is a powerful tool and alliance that is both a resource to achieve their goals and a mechanism to strengthen their community internally (Okkels Andersen and Gruner 2020). This is also visible in Alessandra Korap's statement: the recognition of the awards and the public will strengthen

their resistance in acknowledging their struggles. However, what she and the Munduruku demand and wish for from the Brazilian government – all relevant stakeholders for that matter – is respect. This includes respect for the Munduruku, all indigenous peoples, quilombolas, and riverside communities who are all marginalised. This also further emphasises the communal approach of the Munduruku, fighting with and for all affected communities against a common enemy.

What does respect mean in this context for the Munduruku? There are countless examples within the documents that feature the dimension of respect. In the following I present a short selection:

> "*We want that our culture, tradition, and spirituality is respected*!" (Gegenströmung 2019; own translation into English)

> "*[...] We want that our lives are being valued, our work and our production* (Gegenströmung 2018; own translation into English).

> "*In Brazil, we are more than 305 Indigenous peoples, speakers of more than 274 languages and we still have the record of 114 isolated and recently contacted peoples. We deserve respect and we have the right to be consulted, we want to have the right to say no, that other countries respect all indigenous peoples*." (Kennedy Award for Human Rights 2020).

There is a variety of dimensions that the Munduruku want the government or other actors to respect. It basically **encompasses all areas of life** from cultural, traditional, and spiritual practices to their work, their production, and their outputs. To name a few more, other examples include respect for their land, their rights, or their way of taking decisions (Amazonwatch 2014). Respect here can include many aspects that I would argue all humans ultimately want and what has been collectively denied for the majority of indigenous peoples: to be valued as a person and for one's work, to have a voice and to be listened to, to be accepted for one's spiritual and cultural practices, to have the freedom and safety to live one's way of live without fearing – the list can go on further. It basically encompasses respect, or recognition, as a human-being and as a community of indigenous peoples as a fundamental mode of living and existence.

An important aspect in the context of respect are the accusations against the president Jair Bolsonaro which the Munduruku frequently address in newer documents. The struggle of the Munduruku and other indigenous peoples all over the world for that matter for human and land

rights and overall recognition did of course not start recently, and not with the presidency of Bolsonaro. However, as I already mentioned previously, the current Brazilian president attempts to enforce laws that further weakens the position of the Munduruku and other indigenous peoples in Brazil. This becomes further relevant in the context of respect as he openly disregards indigenous rights and indigenous ways of life. How the Munduruku address this can be seen for instance in the following statement:

> „*The speech of Bolsonaro and his team about indigenous peoples is unprogressive and he treats us, our history, our ancestry disrespectfully and disregards our political-civil agency in regard to the Brazilian state. The president compares us to animals in a zoo which are trapped in their cages when he compares our life in our traditional territories. He makes absurd conclusions about our way of life and our wishes as Brazilian citizens. Yes, we are Brazilians! We are indigenous!*" (Gegenströmung 2019; own translation into English).

This is a heavy, emotionally, and politically charged statement that holds a lot to unpack in the context of respect. The Munduruku show in several letters how strongly they feel about the current president and his government, ranging from anger, rage, to worry, and concern about his positions and measures on indigenous politics (Kooperation Brasilien 2019; Kooperation Brasilien 2020). Other testimonials from the Munduruku show that they strongly perceive him as an "ethnophobic" president (Kooperation Brasilien 2019) making him responsible for "genocide, ethnocide, and ecocide" (Kooperation Brasilien 2020) in which he destroys humans, animals, and land and kills in his name.

In the statement above it becomes clear that the Munduruku do not feel in any way respected – and frankly, it is hard to argue that Bolsonaro`s statements could have been intended to be respectful - by the president and the current cabinet in their history, ancestry, or as Brazilian-indigenous peoples. The comparison of animals trapped in a zoo showcases misrecognition and disrespect of the Munduruku as Brazilian citizens, indigenous peoples, even as humans. Hence, this statement is charged with historic and political power relations, denying recognition and rights to indigenous peoples over centuries. Furthermore, there is a strong notion of development vs. traditions, in which the Munduruku and their way of life, as Alessandra Korap says, are treated as if they belong to a museum (Kennedy Award for Human Rights 2020). In other words, following this argument, indigenous traditions make room for development in the

Amazon region and its peoples are not recognised as members of the state that are alive and have a voice.

Another essential dimension that the segment above opens for this discussion is the tension **between self-determination as indigenous peoples and the rights as Brazilian citizens**. In the statement above it became clear that the Munduruku identify as both indigenous and citizens of the Brazilian state, meaning that they hold rights and recognition of both. While they want to have the right for self-determination based on indigenous rights (Kooperation Brasilen; own translation into English), they are ultimately also Brazilian citizens. This tension further becomes clear in the following segment:

> "*Why do they want to destroy us, are we not Brazilian citizens? Are we so insignificant? What government is this that is declaring against us*?" (Socioambiental 2013).

The Munduruku feel misrecognised both as indigenous peoples and as Brazilian citizens: being excluded from being citizens based on their indigenous claims and being denied indigenous rights as they are perceived unimportant for Brazil. This leaves the Munduruku in a recognition vacuum, not being properly recognised as either, having their rights denied on both accounts.

5.3   Knowledge and Education

The next and last theme that I will address is "knowledge and education". During the coding of the documents it became clear that knowledge, including transfer and equality of knowledge, and generally education is a major dimension. As a theme it is connected to both 'justice' and 'environment' which will become clear in the following analysis.

The first aspect regarding knowledge and education that I am addressing is the way the Munduruku understand knowledge and how they pass it on. Knowledge transfer, or education, for the Munduruku is an oral and communal practice. In the context of the Covid-19 pandemic Alessandra Korap Munduruku mentions that many "living libraries that are our teachings" were killed through the pandemic (Kennedy Award for Human Rights 2020). Through the devastating consequences of the pandemic, this showcases in the context of the current research that the members of the community who possess knowledge are highly valued for their knowledge and teaching. The knowledge is within the teachers, and not in books or physical libraries how it is custom in a 'Western' context. Hence, if members of the Munduruku

community die, it is not only a personal loss of a loved one for the relatives and the whole community but also a loss of knowledge. This further becomes apparent for instance in the following two segments:

> "*All the Munduruku possess knowledge within themselves. This knowledge has been passed down orally by their ancestors so that the cultural value and millennial knowledge will not disappear.*" (Socioambiental 2013).
>
> "*It is our principals of collectivity and knowledge transfer to our younger generations. This way we defended our territories, customs, and traditions for millennials*" (Kooperation Brasilen; own translation into English).

Knowledge transfer is an essential element for the Munduruku to teach their children and the younger generations their way of living, their values, traditions, customs, cultural practices etc. This supports the dimension of knowledge transfer as a cultural value for the community. In this context the generational and communal connection of the Munduruku with their ancestors further shows: the knowledge that has been passed on from generation to generation holds the ways of life of the community, the Munduruku peoples. This also emphasises the connection of the Munduruku to their land: the narratives about the spiritual ancestors both transport knowledge about their cultural and spiritual practices as well as knowledge about the land itself. For instance, these narratives can carry knowledge about where the Munduruku territory continues and ends through landline markers in their stories, hold knowledge about the environment, e.g. which places are potentially dangerous and so on.

As the women tell (Kooperation Brasilen 2019) the practice of oral knowledge transfer also takes place through collective practices such rituals, arts and crafts as well as medicine or cleaning products. Hence, the knowledge transfer is both oral and by doing, which either way depends on teachers and a community to practice and acquire. In this context it is also noticeable that through practicing knowledge transfer in any form of communal ritual, the Munduruku also feel that they strengthen their resistance: This can for instance be by forming a collective identity in the context of a social movement (Okkels Andersen and Gruner 2020) or in regard to the ethnocentrism and Bolsonaro's quotes above, resisting by being alive and practicing rituals that others think belong in museums.

In the context of the Munduruku's transfer of knowledge, the environment is an important dimension. In the chapter "Environment" I already touched upon the point that the Munduruku understand the environment as alive with a voice: "*But we listen to the forest*" (Kooperation Brasilien 2019). This way, the **environment can be a teacher too**, a non-human actor that can

possess and transfer knowledge to the Munduruku. This is also visible for instance in the following statement:

> "*Within nature lies the knowledge that humanity seeks for millions of years. So much research is done, involving scientists, intellectuals, people who possess scientific knowledge, but they do not discover anything and the precious things that interest us remain hidden.*" (Socioambiental 2013)

The environment is a "living library" that holds knowledge of millions of years, long before humans were existing. Given the understanding of the nature as a teacher or holder of knowledge, the destruction it includes another dimension meaning to the Munduruku: in addition to spiritual, cultural, and physical connections to the land and its nature, it also has value for knowledge and education, as a being that can teach the Munduruku and other people who are willing to listen. This segment further implies that certain dimensions of knowledge cannot be acquired through scientific research but that the precious knowledge cannot be discovered either through science or possibly at all.

Nature as a teacher to everyone who is willing to listen leads to another important aspect that I want to address in the following: **equity of knowledge**. This already starts with the above-mentioned lack of information regarding projects in Munduruku territory: "*Infrastructure projects are installed inside our house [the Amazon forest] and we are the last to know*". (Mongabay 2019). As I already explained, this creates power-dimensions in which one party, the Munduruku, do not have equal rights, and access to decision-making through the missing consultancy and information. Hence, the transfer of knowledge is not equal and does not create equal conditions.

Another important aspect which the Munduruku mention in this context is their **formal education**:

> "*In regard to the responsibilities of the federal state government we are pointing out a complete lack of investment in the formal education of indigenous schools, precarious working conditions of teachers, insufficient quality and amount of school lunches, and no differentiated education.*" (Kooperation Brasilen 2019; own translation into English)

This closely connects with the tension of recognition of being indigenous and being Brazilian. As an indigenous community, the Munduruku have their own way of teaching and transferring

knowledge, including their own language, and their own content such as customs, traditions etc. However, they are also Brazilians and have the right to a qualitative formal education provided by the Brazilian state. The Munduruku mention several aspects in which the quality of their education given by the state is poor, for instance the working conditions for teachers or generally nuanced and sophisticated education. This may further deepen inequalities in the future, as poor quality of education is likely to cause many disadvantages in future perspectives within the formal system of Brazil. The lack of general funding and investment into indigenous schools may be a consequence of the structural importance given to education for Brazil in general, i.e. how many resources are being allocated to sectors of economics, education, social welfare, construction etc., or it may be part of a misrecognition of the indigenous peoples as Brazilian citizens.

Another important aspect is **inequity of knowledge itself**, i.e. the **value of indigenous knowledge** within western-centred knowledge and educational systems. The following segments illustrates this dimension well:

> "*In these meetings, our knowledge should be taken into consideration, at the same level of the pariwat (non-Indian) knowledge. This is because we are the ones who know about the rivers, the forest, the fish and the land.*" (Amazonwatch 2014)

The Munduruku, and most likely other stakeholders such as the government, differentiate between indigenous knowledge and 'Western' knowledge, or knowledge of non-indigenous peoples. This refers to both the knowledge transfer such as oral and communal teaching or the environment as a teacher and to the content of teaching such as the way of lives and ontologies. Certainly, it is valued-based and holds various cultural practices. The important point hereby is that knowledge of indigenous peoples and the Munduruku in this case are a subject of recognition, meaning that it can either be valued and respected by non-indigenous people or looked down on and discarded. The examples in this case show that the Munduruku do not feel respected regarding their knowledge and it is not an equal relationship. The knowledge of the Munduruku is not taken into consideration and not recognised by the Brazilian government and other stakeholders as knowledge of value. This is strongly related to **epistemological ethnocentrism** (see Grosfoguel 2012, 83) and the disregard of knowledge that does not arise from and fit the 'Western' formal educational system and ways of acquiring knowledge. However, the solution should not be the other extreme in which the indigenous knowledge is in some cases used for instance for strategies of climate mitigation, hence, detached from indigenous ontologies and turned into a commodity of knowledge. The Munduruku want their

voices to be heard, their knowledge taken into consideration, and ultimately have a say in the decision-making process since they are the ones who actually know the environment. Connecting this to the dimensions of knowledge above, the Munduruku know the environment best because they live in and with it, listen to it and hence understand it in a way that scientific research could not. Another aspect regarding the equity of knowledge is visible in the following segment:

> "*When the federal government conducts the consultation in our village, they should not arrive at the landing strip, spend a day and return. They must come and have patience with us. They must live with us, eat the same food that we eat.*" (Amazonwatch 2014)

The segment shows that the Munduruku want the government to spend more time with them when they are consulting about the projects, and ultimately get to know their ways of life. For some this practice may be familiar from cultural anthropology in which the researcher practices participant observation in order to get to know the community and their understanding of what is researched. The Munduruku want something similar in that they wish the representatives of the federal government take to time to understand and experience how the Munduruku live, eat, etc., i.e. walk in their shoes so to speak. This wish also mirrors the Munduruku way of teaching: communal, oral, and by experiencing or doing. Behind this may be the hope that an understanding of the Munduruku's culture, spirituality, and connection to the land leads to recognition of their way of life or a cancelation of the projects.

6   Discussion

After analysing the documents from the Munduruku in the context of 'justice' and 'environment' I will now connect them with the theoretical framework. At first, I will take the findings from the analysis and relate them to Schlosberg's EJ theoretical framework. Secondly, I will bring the finding in context with the concepts of Coloniality. Lastly, I will open a discussion about environmental justice and more than human approaches.

6.1   The Framework of Environmental Justice

In the following I will connect the findings from the analysis in the context of the EJ framework. As I described in the section of the theoretical framework, Schlosberg's EJ theory consists of

four dimensions: Distribution, capabilities, recognition, and participation. All these dimensions were visible in the analysis of the case of the Munduruku, however, at different frequencies and importance for the Munduruku.

6.1.1   Distribution

The first dimension of distribution is less frequently mentioned by the Munduruku than other dimension such as recognition or participation. One example for the issue of equity of distribution was in the interview of Alessandra Korap Munduruku for an international audience. Here she problematises 'Western' consumption patterns and what these mean for the Munduruku in the Amazon region in which for instance soy for the meat production is planted in monocultures (Mongabay 2019). In the letter of 2019, the Munduruku women further address this issue that so-called developed countries exploit the natural resources of their territory and plead for the support of the international community to boycott Brazilian agrarian businesses (Gegenströmung 2019). It is noticeable that the Munduruku 1. Do not speak often about this issue to create a theme on its own and 2. If they do, it relates to the international community. I could argue at this point that the distribution of environmental goods and bads is indeed very present, even if it is not explicitly mentioned as much as the other dimensions. The Munduruku see and critique the connection of international consumption patterns in which the 'Western' world consumes meat and other products and the indigenous communities such as the Munduruku suffer the environmental consequences. Consequently, one could say that the whole environmental justice struggle of the Munduruku is rooted within unequal distribution and consumption, exploitation, and agrarian patterns.

However, without a broader context, these inequities of distributional structures do not provide valuable insights. Furthermore, the Munduruku do not demand a better or 'equal' distribution of environmental gods and bads but rather critique the whole practice. To address the aspect of distribution properly, other questions need to be asked along with it: Why are indigenous communities, or the Munduruku in this case, so heavily marginalised through rights and economic interest? – This highly relates to the dimension of recognition. Furthermore – and this resonates with the original idea of EJ and distributional aspects - there are strong links to the concepts of colonialities: 'Western' or 'developed' countries heavily exploiting marginalised communities and people of colour. In conclusion, as a dimension on its own or even within this theoretical framework, distribution does not provide enough depth and can rather function as a description of the struggles with other more suitable concepts and dimensions to explore this issue more extensively.

6.1.2   Capabilities

The dimension of capabilities proves to be important in this case. Capabilities include everything that is needed for communities to function and flourish (Schlosberg & Carruthers 2010, 15). This is an integral part of Munduruku's argumentation and clearly visible in many segments of the documents, interviews, and speeches. Looking at capabilities in a broad approach, this dimension can be found in nearly all themes and subthemes throughout the analysis. Especially the different dimensions of land, cultural, spiritual, and physical, show the needed capacities for the Munduruku to function and flourish as a community. This coincides with other indigenous communities all over the world in which cosmologies and the connection to land, including animals, plants, and water, are built on a complex entanglement of different social, political, economic, and spiritual dimensions (Norman 2017, 537-538). Within their argumentation the Munduruku show why the land is so important for their different dimensions of subsistence and in return argue that all this would be taken away through the implementation of projects and the destruction of land. The different aspects of subsistence certainly are obvious capacities, however, also the dimensions of participation and recognition can fall within this dimension. Following this line of thought, the Munduruku need the capacities of decision-making, the acceptance of their rights, and the overall recognition of their community as Brazilian citizens and indigenous peoples to 1. Provide the dimensions of cultural, spiritual, and physical sustenance and 2. As participation and recognition on their own as integral parts of functioning communities.

The capabilities approach is certainly an important one that addresses many issues within the environmental justice struggles of the Munduruku which are often emphasized on by the community itself. However, a critical aspect in this context is the foundation of the dimension of capabilities on distribution. While capabilities go further than distribution, it still works with the premise of distributing goods and bads. Put differently, the Munduruku have to negotiate their needed capacities because other stakeholders take or receive more, and the argument therefore still circles around how to distribute commodities, rights, capital, land, etc. in order to fulfil the needed capacities.

6.1.3   Recognition

Recognition is a central dimension for the Munduruku and strongly present in all documents one way or another. While the Munduruku use the terminology of recognition only in the context of recognition for their struggles at the Kennedy Award, their understanding of 'respect'

coincides with the theoretical definition of recognition: recognition for the culture, traditions, and generally ways of life that may differ from prevalent or 'Western' ways of life (Schlosberg 2007a, 2,8,10). The Munduruku make this very clear and demand respect for all of these dimensions, for their culture, their legal claims of the land, their connection to the land, their name of decision-making – and ultimately their ways of life, their indigeneity and heritage of the Munduruku peoples. Especially in the struggles with the Brazilian government this is an important dimension that 1. arises from the case and testimonials itself and 2. offers insights into deeply rooted and structural problems, power-dimensions, and colonialities. Through the lens of recognition in the case of the Munduruku or indigenous peoples overall, otherwise hidden power-structures, ethnocentrisms, marginalisations, and colonial patterns come to light in the analysis. I would even argue that this is one of the most important dimensions in the EJ framework in the case of indigenous peoples, showcased by the Munduruku, because it makes up the core of their demands and struggles.

The Munduruku emphasise frequently their understanding of the environment, of land, of teaching, of their ways of life etc. and show that they do not feel respected, valued, and understood by the non-indigenous government and stakeholders. The struggles of having their land demarcated, their rights both as indigenous peoples and Brazilian citizens respected and being culturally accepted for who they are build the foundations of their demands. For instance, the official demarcation of the *Sawre Muybu* land can be seen as a way of recognising the land as Munduruku territory on legal, cultural, and ancestral levels. Ultimately, the question is whether the struggles of the Munduruku or other indigenous peoples would lessen or disappear if they were legally, culturally, politically, and socially recognised.

6.1.4 Participation

For the Munduruku, participation mainly includes the participation in decision-making, exchanges of information, and generally consultation about the future of their territory, and consequently the future of their community. Basically, the Munduruku want to be included and participate in the negotiations about their land, rather than it being a one-sided approach by the government. This further highly relates to legal procedures, policies, and rights. Participation, as Schlosberg argues, is closely connected to recognition (Schlosberg 2007c, 11) and based on the case of the Munduruku, this seems to be true. The participation within the decision-making about the Munduruku land ultimately affects their whole way of life, i.e. connects with the theoretical dimensions of recognition and capabilities. Within the dimension of participation, the Munduruku demand to be respected or recognised for their way of decision-making.

In addition, I could argue that one of the reasons the Munduruku have to fight so hard to participate is because they as an indigenous community, their way of life, their voice, and their legal claims are not being respected, acknowledged, and recognised by the Brazilian government. Therefore, I argue that participation, especially in the case of the Munduruku, is a valuable dimension that corresponds to the demands of the Munduruku themselves and can offer insights into more practical aspects such as shown in the consultation protocol of the Munduruku in which they propose a practical guide of consultation. However, participation alone will not help the Munduruku within their struggles, it always needs to be paired with other dimensions such as recognition, since the participation alone does not change much, but their decisions also need to be recognised – which ultimately may be the condition for participation to begin with.

6.2   Concepts of Coloniality

Looking at the critique points of EJ in general and the ones by Álvarez and Coolsaet specifically, I can find many of these aspects within the case of the Munduruku. In the context of the Munduruku, and indigenous environmental justice struggles in general, it is impossible not to consider coloniality since it is visible in all dimensions and ultimately is the root of environmental and social injustice: Rights for land, continuing exploitation of indigenous communities and resources of their land, lack of cultural, political, social, and legal recognition, exclusion from participation and decision-making processes, structural power-imbalances and marginalisation are all connected to matters of coloniality. Hence, the concepts of coloniality seem to be an appropriate and necessary lens to include in indigenous environmental justice struggles.

Álvarez and Coolsaet (2020) mentioned three main critique points of EJ. The first point being the questioning of **distribution**, i.e. the question of producing environmental bads in the first place and whether these can be distributed somehow equally. Whereas distribution itself is critiqued by the Munduruku, this dimension is based on worldviews and the perception of the environment. As I showed in the analysis, the **ontology** of the Munduruku regarding the environment, their reciprocal relationship, and their understanding of the environment as an actor that is alive and valued highly relate to the dimension of distribution. According the Munduruku ontology, the environment should not be exploited at all, hence the whole understanding of nature as a commodity for profit with environmental goods and bads as

consequences do not match. While there may be attempts to reduce the environmental bads for certain communities and the whole world in light of climate change, for the Munduruku this is not a solution. The practices kill the environment - no matter how the goods and bads are distributed. This goes hand in hand with **more-than-human-approaches** and ecological justice in which the environment is considered as an actor with rights itself (source). In the case of the Munduruku, similar to other indigenous peoples, this is based on complex cultural and spiritual understandings that need to be considered into the more-than-human-approaches and environmental justice struggles. Furthermore, the distributional aspects closely relate to the Coloniality of Power, proposed by Quijano (2000), and the exploitation of resources and labour based on the two elements of the power axis ("Race" and capital).

Secondly, Álvarez and Coolsaet (2020) mention the critique of **recognition** in which recognition as a dimension is only partially a solution as it further reproduces colonial structures and misses several dimensions such as international recognition and psychological aspects (59). The lack of **psychological dimensions** based on the concept of recognition by Fraser I cannot accurately address. The Munduruku refer in their documents and testimonials mainly to aspects that affect their whole community. Even if I consider psychological dimensions within the whole Munduruku community, meaning collective effects of the psychological health of the Munduruku, I do not have enough data about this issue. The Munduruku exclusively refer to dimensions of cultural, spiritual, physical, and legal subsistence and do not mention psychological dimensions semantically or latently. However, it is possible that with a different approach and scope of research one may find psychological dimensions in this case. In the Belo Monte case, Weißermel and Chaves (2020) for instance use Agamben's state of exception and approach of precarisation which amongst others explains the psychological effects of epistemic violence such as invisibilisation and invalidation of making sense of the world (164).

Álvarez and Coolsaet (2020) argue that even if the communities themselves demand **recognition** it is because they are so deeply embedded in the colonial system that it is still **enforcing colonial structures** (59). To analyse this more closely, it would be valuable to apply the concept of Coloniality of Being directly to the case of the Munduruku as it is said to alter the colonised people's self-image and perception of the world. Based on the analysis at hand, respect and recognition, both national and international, but also aspects of auto-demarcation and self-recognition are essential elements. Indigenous self-determination or self-recognition can exist outside a legal frame through cultural practices (González 1015, 28). However,

recognition by national and international stakeholders and official territorial rights are a major stepping-stone for indigenous self-determination and autonomy (ibid.).

If indigenous communities such as the Munduruku directly demand and address respect for their way of life, their people, their land etc., it would be a matter of disrespect not to include these demands. For the Munduruku, respect and recognition are essential dimensions so that academia needs to acknowledge and give voice to it. The Munduruku showed that they are aware of colonial structures, and ultimately know their realities and demands best. I believe, and this goes hand in hand with the critique by Álvarez and Coolsaet (2020) and also Schlosberg (2010, 2013), that it is essential to listen to the communities and their demands and understandings in the first place, adapting the theoretical framework accordingly and **depending on the specific case**. I propose a **dimension of recognition that is based on the understanding of the community** in question and that includes several aspects such as the international recognition and self-recognition which also the Munduruku refer to (Mongabay 2019). However, this is only suitable if **dimensions of coloniality** are included to understand and analyse the root problems. Ultimately, coloniality needs to be included in discourses of for instance autonomy as it otherwise would be just "declaratory" (González 2014, 30). Similarly, without all modes of recognition, the legal rights are just on paper like the case of the Munduruku shows.

Thirdly, Álvarez and Coolsaet (2020) mention the limitations of **epistemic knowledge** or the **coloniality of knowledge** (62-63). The colonisation of the mind is accompanied by many forms of direct and indirect violence for the people who hold different views (Mignolo 2007, 450) and presents itself in the EJ struggles of the Munduruku. For many indigenous peoples decolonisation means to "restore dignity as indigenous peoples" including the value of indigenous knowledge which has been deemed to be inferior (Vega 2013, 159). Within the case of the Munduruku this aspect becomes apparent in many levels, especially within the theme of justice. As I showed in the analysis this consists of two aspects: inclusion of indigenous ontologies and inclusion of indigenous peoples in the production of knowledge, i.e. for epistemic knowledge.

Fricker (2007) differentiates between two forms of epistemic injustice: 1. testimonial is when the listener or receiver of information thinks of the information as less important due to the speaker's social or ethnic background. 2. Hermeneutical injustice refers to the overall lack of a concept "that frames these occurrences as wrong or unjust" (Weißermel and Chaves 2020, 157). The Munduruku show in their documents that they have different ontologies regarding the

environment than non-indigenous people, but also have different ways of acquiring knowledge and teaching. Both modes of knowledge are connected to the coloniality of knowledge. The disregard of indigenous ontologies, their worldview, and their way of life shows an ethnocentric understanding of the world in which other understandings are not valued, recognised, and accepted (testimonial injustice). The exclusion of the Munduruku in both decision-making and access to information regarding their land and contribution in academia for instance through creation of theoretical frameworks are signs of coloniality of power, too. The problem, as Álvarez and Coolsaet brought up, lies in the approach of universality (Álvarez and Coolsaet 2020, 62-63), both in research and in practice. The expectation that a 'Western'-centred approach is suitable for indigenous communities inevitably clashes; in research it will leave important aspects uncovered (Quijano 2000, 122), and in practice it leads to – and is based on – misrecognition of the ways of the Munduruku. Hence, 'Western' epistemologies that are rooted in capitalist development and understanding cannot grasp the injustices as it marginalises communities and diverging concepts (hermeneutical injustice) and an overall recognition of epistemic knowledge is needed (Weißermel and Chaves 2020, 157).

Following the critique of Álvarez and Coolsaet (2020), I therefore propose an **inclusion of the coloniality of knowledge or epistemic knowledge** as an integral part or angle of the theoretical framework of EJ. This way, the understandings, conceptions, and ways of acquiring knowledge, i.e. ontological and epistemological dimensions, are being included in the research of indigenous environmental justice struggles. This goes along with the idea of understanding what 'justice' and 'environment' mean to the community in question (Schlosberg 2007a, 3). Many of the findings in my analysis would have gone unnoticed if I had stuck to solely the four dimensions of EJ. They only became visible when structuring the analysis around the conceptions of the Munduruku themselves, i.e. asking specifically what their understandings were. This may be a dimension that could be highly valuable in the context of indigenous environmental justice struggles, but also in non-indigenous contexts, to ensure that the values and demands of the researched community are understood in their specific context. This will also counteract the prevalence of 'Western' theoretical approaches imposed on non-Western contexts.

To conclude this chapter, I believe the critique of the EJ framework in the context of indigenous struggles or in Latin America more generally lead to important considerations and possible solution-oriented approaches. The four dimensions of EJ by Schlosberg are not wrong per se, on the contrary, they encompass important dimensions in the case of the Munduruku and their

struggles and could accompany the analysis or offer different lenses to understand the case. However, I believe that with just the four dimensions on their own, especially if followed rigidly, many aspects are left uncovered and misunderstood, possibly leading to enforcing already existing colonial power-structures. The different dimensions of coloniality are visible on countless occasions. Very prevalent is the Coloniality of Power that reaches every aspect of the environmental justice struggles of the Munduruku: the exploitation of their land and the community along the power-matrix.

Moreover, the Coloniality of Knowledge strongly shows, both in practice and in academia. Especially in Brazil, or other Latin American countries for that matter, one cannot analyse environmental injustice without considering its historical, neo-colonial, post-colonial, and current context (Weißermel and Chaves 2020, 157). The state's economic and development policies, the system of elites, and the land tenure systems reinforce Colonialities of Power and racist structures that continue to marginalise social groups (Weißermel and Chaves 2020, 156). This goes hand in hand with the Coloniality of Justice that may occur when using the EJ framework as is. As mentioned above, following the ideas of Schlosberg and Álvarez and Coolsaet, I believe it is best to use the **framework of EJ only in combination with the concepts of coloniality**, practically asking for the community or their testimonials what their actual conceptions are. By asking the communities and movements themselves, either through documents, interviews, or other methods, Colonialities of Justice and Knowledge, or the epistemic injustice, can be directly addressed. The dimensions of Coloniality are closely connected to the dimensions of the EJ framework and can be found within all of them. Therefore, connecting the two theoretical frameworks or concepts can go hand in hand within the same analysis but offer together an in-depth insight that acknowledges existing power-structures, colonialities, and struggles of the communities from their experiences and worldviews.

6.3   The Role of the Environment

Lastly, there is one more topic that deserves a closer reflection in this context: the **relationship between humans and non-humans**. Many indigenous peoples in the Amazon region hold ontological beliefs in which the nature and human society is not separated because they are linked (Descola 2005, 28). The analysis showed that the environment plays an important role for the Munduruku, regarding different dimensions of subsistence but even more importantly

as a living actor that they have a relationship with. While the Munduruku certainly are dependent on the land and river for their physical subsistence – and mention this within their argumentation - it is not one of the main reasons for their resistance. The analysis as well as other cases of indigenous environmental justice struggles showed that for instance the act of fishing is not only for the communities' physical subsistence but also a cultural practice (Norman 2017, 542). This confirms what Yaka found in the case of hydroelectric dams in Turkey in a non-indigenous community: the communities were **not driven by using the environmental resources** for their economic purposes, and therefore disproves this prevalent assumption in literature (Yaka 2020, 171).

This closely relates to **ontological dimensions** of human-non-human relationships which play a major role in the case of the Munduruku and indigenous communities in general. The complex ontological connection of the Munduruku to the environment, for instance through the form of the personification and deification of animals and elements of nature, creates a deeply rooted relationship with the environment. Consequently, the Munduruku do not only mobilise against the destruction of the Amazon region for their own sake and their territory, but for the environment, the animals, rivers, plants etc. themselves – which ultimately is a form of **justice to nature, or ecological justice**. The cosmology and knowledge in connection to ancestral land, and the overall understanding of indigenous communities stands in contrast to settler mentalities and policies of nation-states (Norman 2017, 538). It further heavily **contrasts 'Western' or neoliberal understandings** of the environment as a commodity that can be exploited for profit, to serve humans. This is a dimension that certainly cannot be grasped or understood through the lens of distribution since it only looks at humans in regard to distribution and inherently misses the point: the environment cannot be distributed or exploited at all, hence, pure re-distribution does not increase the 'fairness' or 'equity' of it.

Indigenous cosmologies and their connection to the environment can add to both EJ frameworks and decolonisation. Exploring what harms, justice, and ethics to the environment mean can expand the EJ framework away from capitalist notions to a concept of the environment as animate (Norgaard and Reed 2017, 28).

While I analysed the human-non-human-relationship of the Munduruku mainly through the ontologies of the Munduruku, there is another necessary angle. To include human-non-human-relationships appropriately, Yaka proposes to include the complementary dimension of **social-ecological justice** besides the already existing dimensions of distribution, recognition, and participation (Yaka 2020: 168). Yaka argues that the relationship between humans and the

environment go beyond distribution, participation, and recognition as they ultimately all centre around the human. Therefore, socio-ecological justice is the "relationality of the social and the environmental", the overall social connectedness to other (non-human) bodies, organism, and elements, i.e. becoming part of the world or being in relation to these other elements and actors (ibid. 174). This is also mirrored in possible research ontologies for instance **post-humanist** approaches (ibid. 175). This certainly is an interesting and promising approach that would address many gaps within EJ studies, and ultimately **challenge how we as humans think of the environment**, including issues of climate change, capitalist exploitation, and uses of resources. It may also be an approach that helps to understand indigenous or generally from mainstream diverting conceptions regarding the environment, hence, offer a better understanding and conceptualisation of diverse cases.

For Yaka (2020) this is based on a "relational ontology of human life and the non-human world", and not a matter of culture or cosmologies since we as humans are fundamentally connected to the environment (175-176). However, within indigenous EJ contexts, cultural practices regarding the environment as well as cosmologies are an integral part. The exclusion or neglect of these dimensions may create further problems and **inequalities with recognition** of indigenous cultures, belief systems, traditions, and ontologies. Not including indigenous ontologies, post-humanist approaches ultimately misses important relations and conceptions of the environment (Burow et al. 2018, 64-65). Indigenous peoples have more complex understandings and connections with the environment that go far beyond the current scope of post-humanist perspectives (ibid.).

7   Conclusion

How do the Munduruku define and understand 'environment', 'justice', and ultimately 'environmental justice'? During the analysis it became clear that there are diverse and entangled dimensions of 'justice' and 'environment' for the Munduruku.

In this context, I define the environment as a fluid element consisting of land, water, territory, and nature. Within the theme of '**environment**', I identified three subthemes within the Munduruku's testimonials: 1. The environment carries meaning to the Munduruku as they have

generational connection to the land to both ancestors and future generations. It manifests on the one hand in the wish to protect the *Sawre Muybu* land for their children so that they can live their way of live freely and in peace. On the other hand, it connects to the Munduruku ancestors over hundreds of generations before and during colonial times that legitimises land rights. Furthermore, cultural and spiritual practices, knowledge, and narratives are being transferred over generations from past to future. 2. The environment is essential for the Munduruku within cultural, spiritual, and physical dimensions of land. The Munduruku depend on the land for their subsistence as food sources or shelter. Moreover, the Munduruku have a deep connection to the different elements of the land such as rivers, stones, waterfalls etc. as they connect to cultural narratives and Munduruku history, ancient burial places, or overall sacred and cosmological places. 3. The Munduruku do not only depend on the environment but have a reciprocal relationship of caring for each other. Differing from typical 'Western' or neoliberal worldviews, they Munduruku live after an ontology in which the environment is alive, deserves to be respected, and ultimately cannot be exploited for profit.

Within the theme of '**justice**' I identified three subthemes of importance for the Munduruku: 1. For the Munduruku the legal aspect of rights is important as a tool to legitimise territorial and indigenous rights. Within this dimensions, colonialism and historical claims to land, official demarcation and the ILO 169 for indigenous self-determination are essential elements in the fight for rights between the Munduruku, the Brazilian government, and international legislations as main actors. 2. Overall participation, inclusion in decision-making processes, access to information, and consultation of the Munduruku regarding their territory is a key element in environmental justice struggles. Ultimately, the Munduruku demand self-determination over the fate of their land, being recognised as decision-makers, and consultation by the government in the community-based terms and practices of the Munduruku. 3. Recognition refers to the lack of respect regarding the Munduruku's way of life, culture, traditions, worldviews, rights to land, - in short encompassing all areas of life. Special tension lies between the recognition as indigenous peoples and as Brazilian citizens.

Lastly, the theme of '**knowledge and education**' proved to be relevant both for the Munduruku and this analysis. This includes the ways of knowledge production and transfer, such as oral and communal teaching or the environment as a teacher itself. Especially important is the equity of knowledge, i.e. the recognition of indigenous knowledge and ways of acquiring knowledge in 'Western'-centred and ethnocentric knowledge systems.

In conclusion, the Munduruku view EJ holistically and broadly, including dimensions of social justice and ecological justice, i.e. caring for the well-being and rights of the environment with humans, non-humans, and natural elements in it. Matters of EJ are a complex entanglement of various dimensions that are embedded in colonial and neo-liberal power-structures and differing worldviews.

The **theoretical framework of EJ** proved to be partially valuable in which many of the four dimensions could be found within the case at hand and were addressed by the Munduruku themselves. However, following the EJ framework rigidly or exclusively would leave essential and valuable aspects unaddressed. It became clear that it is essential, especially in indigenous environmental justice struggles, to include **concepts of coloniality**, historical contexts, and political, economic, and social power-structures which contribute to the marginalisation of the Munduruku and other indigenous peoples.

Problematic is the focus of the concept of EJ on the aspect of distribution. While the Munduruku suffer from neoliberalist and colonial structures that are based on exploitation and inequal distribution, the idea of equalising distribution would not be sufficient. The Munduruku, similar to other (indigenous) communities do not understand environmental justice through concepts of exploitation and distribution, i.e. applying this framework and angle would lead to misconceptions and misrepresentation. Overall, the lens of distribution would not advance the research or the cause – and ultimately be a form of **Coloniality of Justice** (Alvarez and Coolsaet 2020). Besides the Coloniality of Power and Being, the Coloniality of Knowledge plays an essential role in the research at hand and the EJ framework: the need for the recognition of indigenous ontologies (testimonial epistemic justice) and hermeneutical epistemic justice through the inclusion of diverse and suitable concepts and frameworks. Ultimately, it is essential to understand how the by environmental injustice affected communities such as indigenous peoples conceptualise EJ, the environment, and justice. This understanding may differ from mainstream EJ frameworks and cannot be understood or researched through it. Hence, suitable alterations need to be made.

Lastly, it became clear that environmental justice in this case not only includes **human-beings but also non-human elements**. While there are promising concepts to include the environment itself into the framework of EJ such as socio-environmental dimensions by Yaka (2020), they do not fully do justice to indigenous cases or the case of the Munduruku in specific in which the environment holds various meanings. The relationship between humans and non-humans within environmental justice struggles is an area that certainly needs more focus and conceptual

advancement as it cannot completely be grasped with the EJ framework at this point. While I aimed to understand the environment through the eyes and understandings of the Munduruku, the environment itself, with and without its relationship to humans, needs to be conceptually included in EJ frameworks. This could ultimately open up new ways of how we think about the environment, its role, and the role of humans in it. It could further advance the understanding of indigenous environmental justice struggles, their demands, struggles, underlying power-dimensions, conceptions, and relationships with the environment.

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