Ca' Foscari University of Venice

Master's degree programme

in Environmental Humanities

Final Thesis

"La lucha es por la vida"

Rethinking the Ecological Transition through Colombian Indigenous Cosmologies, Practicies and Mobilisations

Supervisor

Ch. Prof. Valentina Bonifacio

Assistant supervisor

Ch. Prof. Fabio Pranovi

Graduand

Irene De Giorgi

Matriculation Number 890300

Academic Year

2022 / 2023

Abstract

The eco-climate crisis can be defined as a profound civilisation crisis, leading to questioning the dominant anthropocentric, capitalist, extractivist system and its Cartesian values. Therefore, flowing among ecology, political ontology, Indigenous ecological knowledge and green extractivism, this work advocates for the need to rethink the ecological transition in broader terms, overcoming the technological realm, as to encompass the social, political, and cultural one. In doing so, it adopts a decolonial stance and engages with Indigenous cosmologies, practices, and mobilisations from Colombia. First, the Indigenous movement, which led to the creation of the Indigenous organisation CRIC and ONIC, represents a crucial point of reference, since it embodies several claims compatible with those related to the ecological transition. Secondly, the ecological practices of the Arhuaco community of Sierra Nevada de Santa Marta are appreciated through Berkes' Indigenous Ecological Knowledge framework, thus emphasising the crucial role played by the cultural framework within the ecological transition. And finally, the limits of an ecological transition only focused on technological solutions are depicted by an analysis of wind park projects' impacts in the Wayuu territories of La Guajira (Colombia).

Keywords: Ecology; Indigenous Environmental Justice, Green Extractivism, Political ontology.

Table of contents

List of figures and tables

Introduction

Water was hitting us, fired at high speed from the hydrants. Despite the shortages due to climate change-induced drought, there appeared to be enough of it to use against climate activists. I was lining up together with hundreds of people from all over the world, willing to bring our climate and social justice claims under the spotlight of the Venice Film Festival, and yet we had been stopped by the police impetus. One minute before, we were marching together, elbow to elbow, as one single body, a long, intertwined, and self-regulating human ecosystem, which was much more than human: we were nature defending herself. Then, suddenly, everything changed. I remember a moment of darkness and confusion. Something hit my head. Something was forcefully pushing us back. Then I realised that water was been fired at us. The march opened up, someone fell; we tried to regroup, but the waterjet was strong, and we were disheartened. And then, in the midst of that chaos, a voice stood out:

La lucha es por la vida.

The struggle is for life.

Juan Pablo, an Indigenous leader from Colombia, was chanting these words to reignite us with strength and hope, reminding us why we were there, who we were, and what we were fighting for. The climate and ecological crisis was undermining the very life fabric on the planet, and we demanded a radical paradigmatic change to reverse the course.

It is emblematic that it would be precisely an Indigenous leader from South America to provide such encouragement. Much more than an energy boost for that moment, he seemed to respond to one of the main doubts that had been echoing in my mind ever since I started reflecting on the eco-climatic crisis, and one of those questions that led to me to embark on this journey within the environmental humanities: is there an alternative? Are there social and cultural models more apt to foster a more harmonious relation with nature and among human beings, safeguarding rather that destroying the ecological balance? The day of the march, Juan Pablo gave me a hint, and I decided to follow it. This is how I ended up on a mesmerising journey through Indigenous territories, experiences, and mobilisations in Colombia, which are the raw material on which the present work builds.

Flowing among ecology, political ontology, Indigenous ecological knowledge and green extractivism, in this thesis I try to articulate an answer to the question of what an "ecological transition", in the face of the eco-climatic crisis, might look like. To do so, I approach the "ecological transition" as an ambiguous term, apt to be interpreted according to the context from where it emerges. Indeed, in the scenarios where I first encountered it, that are activist and grassroots movements, the ecological transition is commonly referred to as a structural, political, and social change. By borrowing a definition from the Treccani encyclopaedia, this first conceptualisation of the ecological transition can be summarised as a "process through which human societies interact with the physical environment, aiming for more balanced and harmonious relationships within local and global ecosystems" (Treccani, 2021*, my translation*). However, this is not the only connotation of the term. In technocratic and political discourses, such transition emerges, instead, as a mere technological change, simply aimed at producing less greenhouse gases emissions and pollutants, without questioning the cultural, ideological, and political model in which such technological advances are implemented. In this sense, a clear example is represented by the European Green Deal, based on policies of emissions reduction, and intending to make the economy "modern, resource-efficient and competitive" (European Commission, n.d.). Departing from these two ways to define the "ecological transition", with this work I further enquire: what is the role of cultural and social change within the context of the ecological transition? And what, instead, is the role of technology?

More precisely, the objectives of this work can be articulated on three lines. First, it aims at expanding the conceptualisation of the ecological transition as a cultural, social, and political transformation, by drawing on ecological principles, socio-ecological justice and a decolonial approach. Secondly, and building from this first conceptualisation of the ecological transition, it seeks to further showcase the link between cultural framework and ecological practices. And finally, it looks at the other side of the coin, questioning the limits of an ecological transition solely intended as a technological shift.

The ecological and climatic upheaval is by now a widely acknowledged reality. The consequences of human disruption of the planet's boundaries and ecological balance are every day more evident: increasingly frequent and violent extreme events, alternation of floods and droughts, melting of ice caps and sea level rise are just some of its symptoms (IPBES, 2019; IPCC, 2023; Richardson et al, 2023; UNEP, 2023). The crisis is urgent, and calls for immediate, radical action and structural change. Consequently, addressing the meaning and scope of such change, commonly referred to as the "ecological transition", is unquestionably crucial. However, the relevance of this work is not limited to this. Considering the increased popularity of the concept and the evident effects of the eco-climatic

disruption, it is not surprising that research on the ecological transition is abundant across various disciplines. Nevertheless, one of the critical points that is often absent in research regarding the ecological transition is a generalised deeper questioning of the ontological, cultural, social, and political paradigm underlying the eco-climatic crisis. As a result, the ecological transition is frequently depicted in terms of technological adjustments aimed at constructing a more ecological society (Grossmann et al., 2021). According to such predominant view, if the climatic and ecological crisis is the problem, technology is the solution. This work, on the contrary, proposes a different standpoint, typical of the field of the environmental humanities, namely that of overcoming the technocratic approach by placing the eco-climatic crisis within the social and cultural realm (Ghosh, 2017; Oppermann & Iovino, 2017).

Moreover, the relevance of this work stems from its interdisciplinarity. Again, confronting the ecological and climate havoc implies facing a complex set of interconnected issues, which is not possible to address from a univocal disciplinary perspective. Again, part of the originality and value of the research undertaken within the environmental humanities is directly related to such interdisciplinary approach, whereby humanistic and scientific fields converge and inform each other. This thesis goes in the same direction, by resorting to ecology as a scientific point of departure for a social and cultural analysis.

Existing research and, broadly speaking, the dominant narrative on the ecological transition is also defective insofar as it lacks a decolonial approach (Mignolo & Walsh, 2018; Quijano, 2000). As pointed out by several authors, the ecological and climate crisis can be understood as both a consequence and continuation of the colonial violence that saw the European powers impose themselves on Indigenous lands, in South America as in other parts of the world (Dhillon, 2021; Escobar, 2014; McGregor et al., 2020; Povinelli, 2021). Such domination occurred not only on a material level, but also on an epistemic one, devaluing and obscuring Indigenous knowledges, practices, social models, and worldviews (Quijiano, 2000; De Sousa Santos, 2016). Integrating a decolonial gaze and referring to Indigenous people when dealing with how the ecological transition can be conceptualised is thus relevant and necessary, for two reasons. First, it provides an opportunity to assume and try to heal the colonial past (which, in many ways, extends to the present), by making sustainability a “decolonial project” (Escobar, 2008, p. 155). Secondly, directing attention towards Indigenous worldviews and practices is beneficial as it opens up the range of the conceivable possibilities and helps informing the radical paradigmatic shift that an ecological transition could imply. If, as Ghosh (2017) states, the climate crisis is a “crisis of culture, and thus of the imagination”

(p. 9), and if it is so difficult to imagine an alternative to the modern, capitalist system (Fisher & Mattioli, 2018), then attending to Indigenous people is relevant since it proves the opposite: alternatives do exist, we only need to acknowledge them, include them in the narrative and let them inspire the transformation we call for when we refer to an "ecological transition". For this reason, the argument exposed in this thesis builds on three Indigenous case-studies, with which I engaged all along my journey in Colombia.

At this point, it is important to clarify what I refer to when I say that it is important to include a focus on Indigenous people in the discourse around the ecological transition, since such a stance could give rise to misinterpretations and criticisms. I should start by acknowledging my positionality within the framework of this academic research, namely that of a white, European, middle-class student. This work adopts an anthropological standpoint and related tools, and it is important to remind that both were born in colonial times and served for colonial purposes, i.e. describing and acquiring knowledge over people in order to better gain control over them. In the course of history, anthropology as a discipline has undergone a process of self-reflection, and to some degree has rejected such stance. However, without a proper critical use, anthropological tools might end up perpetuating similar colonial dynamics. One of the risks of anthropological practice is that of "academic extractivism", whereby scholars attend to alternative knowledge systems, such as Indigenous ones, with a profit-driven attitude, extracting concepts for academic analysis without giving proper credit or participation to the local actors (Alatas, 2022). Another approach that mirrors a colonial attitude is that of claiming to speak for Indigenous people, or, in other words, claiming to be suited for describing them better than how they would describe themselves (Vasco, 2007). As I was anticipating, in the light of my own positionality, it is fundamental to clarify the way I approach Indigenous matters in this work, thus distancing myself from the attitude previously described.

The analytical approach I have adopted in the course of this work is informed by Ingold's definition of anthropology. According to him, doing anthropology means "taking the other seriously", that is, attributing equal value and significance to the worldview and ontology of the "other" as well as to the one of the anthropologist (Ingold, 2018). However, attending to the "others" with serious attentiveness is not aimed at better explaining them. Rather, the reasoning follows a reflexive path - comparable to the Hegelian thesis, antithesis and synthesis – whereby the focus goes back to questioning the researcher's own standpoint and worldview. "Taking the other seriously", then, is an introspective endeavour, which allows a constructive self-critique, rather than a detailed description of the alterity. Moving from this stance, with this work I do not claim to speak for Indigenous people,

nor is my goal to provide the most accurate description of their worldviews, ontologies, and practices. I do not believe to be in the position to do so, since, as previously expressed, that would determine a colonial attitude on my behalf, which I reject. What I intend to do, instead, is to start from my positionality as a scholar of the Global North, acknowledge the limits and failures of the cultural, social, and political model to which I belong, and thus resorting to Indigenous worldviews, ontologies and practices as a contrasting point that enables me to forge a constructive self-critique with relation to such worldview and socio-political, cultural model. Such critique takes a double form: it implies emphasising the shortcomings as well as pointing to possible solutions. Moreover, it is important to note that, in doing so, I do not assume the Indigenous models as one-size-fit all alternatives. On the contrary, they serve as contrasting points through which it is possible to critically engage with our dominant model. This is especially true and necessary when dealing with the concept of the ecological transition. What should an ecological transition look like? To what extent can it be considered as a social, political, and cultural transformation? What is the role of technology within it? It is to these sorts of questions that anthropological attention towards Indigenous people should help find answers. In doing so, this work attunes with Geertz's (1973) and Vasco's (2007) accounts of a relevant anthropological research: it should start by considering society real needs, and its worth should be valued according to its aim. In other words, theories and methodologies are subordinate to the goal of the research: "knowledge, science, research are not ends in themselves, but they are means, they are tools… and they are tools, as Marx says, to transform the world" (p. 19, my trans.). The ecological and climate crisis points to the need for a profound change in the dominant Western socio-political paradigm, and anthropological research focusing on Indigenous people helps informing how such transformation – in the form of an ecological transition – might look like.

This thesis presents the character of a qualitative experimental research. The methodology has varied to suit each chapter's specificities and research needs, and it is further clarified at the beginning of each of them. However, it is possible to provide a general overlook. Apart from the first section, where the method was solely based on an interdisciplinary literature review, all the others present a mixed method, also including participant observation during fieldwork and semi-structured interviews, and informal conversations. More precisely, the second chapter combines 6 semi-structured interviews with an extensive analysis of second-hand data, spanning from state and organisations' documents and communications, journals, and websites. The third chapter, instead, is predominantly based on an ethnographic approach where participant observation was key. First-hand data is provided in the form of relevant ethnographic scenes and informal conversations, but they are also complemented by an analysis of additional relevant documents and an academic literature review. Finally, the fourth

chapter resorts mainly on 15 semi-structured interviews, but also participant observation and informal conversation, matched with a literature review. In all cases, the material collected through the interviews was transcribed and analysed through coding and thematic analysis (Bryman, 2012).

Space and timewise, the present research follows a 6-months (March-August 2023) path across several regions of Colombia, which are all relevant for the presence of Indigenous actors. Broadly speaking, Colombia represents a flourishing and inspiring ground with regards to Indigenous people. The country is indeed officially recognized as pluri-ethnic and multi-cultural (art. 7, Constitución Política de la República de Colombia, 1991) and grants special rights and autonomy to its Indigenous inhabitants, which count around two million individuals and belong to 115 different native groups (DANE, 2019; Laurent, 2005; 2012). Both in past and recent times, Indigenous people are significant agents in Colombia, in virtue of their political mobilisation, cultural, cosmological, and ontological diversity, and involvement in socio-environmental conflicts. For this reason, Colombia was deemed as a fertile ground to elaborate this research.

I will now delve more on the different passages of the research process. For the second chapter, interviews were conducted between March and May 2023, in two locations. One of them is Bogotá, capital of the country, but, more importantly, home to the headquarter of the main national Indigenous organisation, the *Organización Nacional Indígena de Colombia* (ONIC). The other is the city of Santa Marta, on the North-West coast, where, due to my involvement with Indigenous communities of the area, I had the possibility to conduct two interviews with members of the local cabildo (Cabildo Arhuaco Magdalena y Guajira), a special public entity for the administration of Indigenous lands. The fieldwork for the third section was done between June and July 2023 in the Arhuaco Indigenous community of Bunkwimake, in the Sierra Nevada de Santa Marta, a coastal mountain complex home to four Indigenous groups, known as an example of biocultural conservation, whereby Indigenous practices play a significant role in preserving local biodiversity (Duran-Izquierdo & Olívero-Verbel, 2021; Ebus, 2017; Cancillería Gobierno de Colombia, 2022; CIT, n.d.; Rodríguez-Navarro, 2000; UNESCO, 2023). Finally, the research-journey ends in the Wayuu Indigenous territory of La Guajira, the Northernmost peninsula of Colombia, which, due to its favourable exposition to sun and wind, has become the epicenter for the production of green energy, with projects implying the installation of wind parks in Indigenous land. In this case, fieldwork covered a 17-day period, spanning from July to August 2023, predominantly in the middle and upper parts of the region, focusing on the cities of Riohacha, Uribia, and Maicao, as well as their surroundings.

The work is divided into four chapters. The first one is dedicated to the description of the ecological and climate crisis as an expression of a deeper social, political, and cultural crisis of the dominant Western modern paradigm. In doing so, it draws on works of scholars such as Armiero (2021), Haraway (2015), Moore (2017), Tsing (2015), Hickel (2020) and Capra (2005), among others. Moving from this standpoint, the ecological transition is conceptualised as a transformative paradigmatic shift, which overcomes the strictly technological realm as to encompass the cultural, social, and political one. To better define the elements of such transition, ecology is mobilised to infer some fundamental principles, which, it is argued, should inform the paradigmatic transformation needed. Finally, the chapter includes a decolonial stance by arguing for the need to engage with Indigenous experiences, mobilisations, and political claims at the time of defining the scope and meaning of an ecological transition.

The second chapter delves more into the connection between Indigenous mobilisations and the ecological transition by focusing on the Indigenous movement in Colombia, and more precisely on the uprising which led to the creation of the two main Indigenous organisations of the country – namely the *Consejo Regional Indígena del Cauca* (CRIC) and the ONIC. This serves as an example of a social movement whose claims and transformative political and cultural vision are compatible with those related to the ecological transition, in its connotation of profound socio-cultural paradigmatic change. Moreover, this chapter resorts to political ontology (Escobar, 2014) to emphasise the depth of Indigenous proposals, which go well beyond the cultural sphere, but are indeed ontological.

The third chapter, then, zooms in this conceptualisation of the ecological transition, and focuses more specifically on the role played by cultural and social change. On a theoretical level, it resorts to the Indigenous Ecological Knowledge (IEK) framework proposed by Berkes (2012) and to the idea of cosmology presented by Reichel-Dolmatoff (1976). Applying these critical lenses, it builds from my fieldwork experience with the Arhuaco community of Bunkwimake to analyse the relevance of Indigenous cosmology, cultural values, and social norms in relation to their ecological practices. For analytical reasons, here cultural norms and practices are referred to as if they were distinguished and separable, while it is important to bear in mind that such distinction is fictitious. Worldviews and environmental practices arise simultaneously, are co-dependent and influence each other. Engaging with the natural environment forges people's worldview about it, while, at the same time, the worldview informs ecological practices. The two poles (belief/practice) are not really separated, but

rather influence each other in a continuous feedback process. However, once having clarified this, the IEK appears as a useful tool, particularly suited for the argument presented in this thesis.

While the third chapter is focused on the link between cultural context and ecological practices, and therefore its relevance in the context of the ecological transition, the fourth and final chapter reverses the point of view and analyses the shortcomings of technological solutions. In other words, it scrutinises the second conceptualisation of the ecological transition, that is that of simply implementing technological changes. More precisely, this section centres on the impacts of wind park projects in the Indigenous Wayuu territories of La Guajira and evaluates them under a triple theoretical prism: that of the Just Transition, the Environmental Justice Framework, and Green extractivism/colonialism. With regards to technology, it is important to stress that the argument sustained here is not that technology is not necessary for an ecological transition, quite the opposite. What it questioned is not technology in and of itself, but rather the unquestionable faith associated to it, and the idea that an ecological transition can be conceived only in terms of technological change.

Water had stopped. We turned our back to the police trucks. We had not made it to the red carpet, and yet our presence there signified something important. We knew the road ahead of us was long, tortuous, and hard, but being there with our bodies and souls was, for as little as it might seems, a small rift in the dominant paradigm, the materiality of a fermenting alternative willing to thrive. An alternative embodied by climate activists and Indigenous leaders marching side by side. Soaked with happiness, we walked back to our camp. But my journey in the exploration of the ecological transition through Colombian Indigenous experiences of resistance had just begun.

Chapter one – what ecological transition?

1. The eco-climate turmoil as a socio-political, cultural crisis

In an era defined by unprecedented environmental shifts, the pervasive effects of climate change have emerged as a pressing global concern, redefining landscapes, economies, and the very fabric of human existence. The increasing number of extreme weather events, rising temperatures and sea level rise pose a substantial threat on human infrastructures and well-being, with a direct impact on the food production systems and freshwater availability. While ice caps are melting, oceans are becoming increasingly acidified. And the consequences of climate change are directly visible, and will become even more so, making some parts of the world unhabitable, causing mass migrations, disrupting economies, and fuelling conflicts all around the globe. Climate change is also rooted in global inequalities: the less responsible and most vulnerable countries and communities are also the most affected ones (IPCC, 2023). Yet, climate change is just one side on the global turmoil we are facing as a society. Entire ecosystems are being disrupted, as we make our way into the sixth mass extinction the world has ever faced (IPBES, 2019; UNEP, 2023). Although climate change captures most of the attention nowadays, focusing only on this aspect, without considering human impact on the planet in a wider sense, risks to render a partial or inaccurate picture of the situation. This becomes clear when looking at the planetary boundaries framework, which was developed in 2009 in order to assess the conditions of those physical limits within which humans can continue to develop and thrive (Richardson et al., 2023). They include climate change, biosphere integrity, novel entities, stratospheric ozone depletion, atmospheric aerosol loading, ocean acidification, biogeochemical flows, freshwater change, and land system change. According to the latest study, six out of these nine thresholds have been transgressed, while pressure is increasing on all of them, except for ozone depletion (Richardson et al., 2023). These reports draw a dark picture of the situation of the human species on the planet: we have generated this global crisis through continued transgression of the planet's biophysical limits, causing unprecedented and, in some cases, irreversible changes, which undermine the very basis of human and non-human life on Earth.

The changes the planet is undergoing due to human pressure are of such a magnitude as to convince scientists that this epoch deserves a name of its own. We entered, then, in the Anthropocene, a geological time marked by the profound and lasting impact of human activities on the Earth's systems and environment. Human activity is, indeed, responsible for chemical, physical and biological

alterations, resulting in major changes in economic, social, and environmental aspects of the Earth and disrupting the functioning of the planetary system (Crutzen & Stoermer, 2000).

Since its introduction, the term "Anthropocene" has sparked interest in the academia and has been widely adopted. However, alternatives appeared too. Armiero (2021), for instance, has proposed the name "Wasteocene", pointing at the centrality of "waste" in our time. Not only is waste "matter out of place" – he argues – but it is a process, namely that of creating people (human and non-human alike) and places that are considered disposable. "Wasteocene", then, refers not only to this transformation and classification, but also to the power relations that make it possible. The concept of "waste" is replaced by that of "plantations" in Tsing's "Plantationocene" (Haraway et al., 2015; Davis et al., 2019). According to her view, the current epoch is characterised by social, economic, and environmental dynamics corresponding to those inherent to the functioning of a plantation (both metaphorically and materially), namely global and long-distance circulation of capital investments, people and plants and the resulting simplification of landscapes, together with dynamics of homogenisation and control. Instead of focusing on criticising existing destructive processes, Haraway's proposal highlights the possibilities that exist in a world marked by mass extinction and climatic distress. She chooses "Chtulucene" to signify the necessity to forge new human and non-human kinship, while picturing the Earth as an entanglement of "diverse earth-wide tentacular powers and forces and collected things" (Haraway, 2015, p. 160).

Apart from their specificities, what all these names hold in common is that they shift the focus and responsibility of the current situation from a general and homogenous "humanity" – as the word *anthropo-* would imply – to specific political, socio-economic systems and power relations. In this sense, perhaps the most notorious alternative that has been put forward to replace the term Anthropocene is that of "Capitalocene" (Moore, 2017), according to which the current climate and ecological crisis is caused primarily by the capitalist system. Its proponent builds from a Marxist analysis, describing capitalism as a "world-ecology" based on a double exploitation: that of workers' labour and of nature. Placing humans outside of nature paves the way for its unlimited depletion and such an approach is considered the main cause of the destructive consequences previously outlined. Furthermore, capitalism's reliance on continuous expansion, growth, and accumulation for the benefit of a small élite is not compatible with the planet's biophysical boundaries (Herrero, 2021; Hickel, 2020; Grossmann et al., 2021; Pérez Orozco, 2020). And yet, according to Latour (2020), the power that such an élite holds prevents any real action from being taken to reverse the course.

One of the major critiques posed to capitalism as a way to organise social and environmental relations comes from a feminist approach. Capitalism, which relies on infinite growth and extraction, is inherently incapable of providing the circumstances for the continuation of life, since capital places production and profit over the reproduction of life. This is what Federici (2020) refers to as "crisis of social reproduction". On one hand, the system is organised around "profit" as a value, therefore undervaluing human life and the conditions that are necessary for the social reproduction on a daily basis. On the other hand, the profit-seeking imperative is deeply connected with an extractive attitude towards nature, and this, in turn, leads to a disregard of the planetary boundaries and undermines the material basis that make the reproduction of life possible, on a wider, ecological level. The crisis of social reproduction generated by the capitalist system refers, then, not only to a state of growing inequality, precariousness, and social exclusion, but also to the increased elimination of the possibility for human life to be sustained in the future (Herrero, 2021; Gutiérrez Aguilar & Salazae, 2020; Pérez Orozco, 2020).

Rephrasing the "Anthropocene" in terms of "Capitalocene" is then useful, since it recognizes two major points: not all humanity is equally responsible for the current eco-climatic catastrophe, but there are power and hierarchical dynamics involved. Such dynamics are enshrined in a socio-economic system which places profit and production over human and non-human life, while simultaneously being rooted in an unbridled expansion and exploitation of human and natural resources. This generates benefits for a small part of the global population, while widening social inequalities (Hickel, 2020). Understanding that a socio-economic system based on human and non-human exploitation for the benefit of a few is at the core of the current situation is indeed useful, and yet not sufficient, since, as every human system, its establishment and continuation is determined by an ideological paradigm.

The ideological paradigm underpinning the capitalist, extractivist, patriarchal and neocolonial system traces its roots to ideas introduced by religious traditions (White, 1967), but then systematized by two of the major thinkers of the XVII century: Descartes and Galilei. On one hand, Cartesian's philosophy described the world according to a set of dualisms: mind and body, man and nature, science and religion, man and woman; on the other, Galilei's scientific method, which is the basis of modern science, instilled a profound belief, the certainty of the possibility of knowing (and thus manipulating) nature through science (Capra, 2005). Organising the reality according to this separation paved the way for the rise of hierarchical and oppressive dynamics between the two categories. Indeed, placing man outside and above nature granted him the possibility to exploit it for its own benefit (Merchant,

1988; Oppermann & Iovino, 2016). A similar dynamic occurs in the relationship that involve men and women and that define the patriarchal society we are enmeshed in. According to an ecofeminist critique, modern society allows humans to exploit nature just as it allows men to oppress women (Gaard, 1993; Mies & Shiva, 2014). The core of the problem does not lie in the subjects themselves – being them nature or women – but in the dualistic and hierarchical relationship that ties them with men. The same dualistic and hierarchical approach is what has justified colonial enterprises from the West to the rest of the world, legitimising violence and exploitation of land and people considered to be not only different and separate, but also inferior to the Western male gaze (Acosta, 2015; Santamaría, 2013).

Cartesian dualism has another implication: by severing humanity from nature, it overlooks the fact that human existence depends on its relations with its human and non-human environment. Failing to conceive the world as an assemblage of connections rather than as individual entities fuels individualistic attitudes and marks an approach of domination (Herrero, 2021; Plumwood, 2002). This appears to be one of the prevailing features of modern society: the lack of a sense of connection between human and non-human entities, which is instead replaced by a sense of radical difference (Rose, 2011; Oppermann & Iovino, 2016). Reality is perceived as objective and pre-existing the relations that configure it (Escobar, 2014). Such a logic marks a sense of alienation from the Earth as well, numbing humans' ability to perceive their connection and belonging to the planet they inhabit, as Latour (2020) argues.

Cartesian thought paired with Galilei's scientific stance resulted in the widespread attitude towards nature which lies at the basis of the capitalist and extractivist system. With the establishment of the scientific method, the natural world came to be viewed as objective, perfectly divisible and apt for being studied, therefore controlled, dominated, and manipulated. Such a view does not just contrast deeply with the medieval perception of nature, which was still imbued with spirituality and sense of divine (Herrero, 2021), but it is also contradicted by contemporary scientific and physical discoveries (Capra, 2005). However, this has not changed the general common perception, imaginaries, nor the technological apparatus, which was crafted based on those ideas (Herrero, 2021).

Apart from being determinant in crafting human attitude towards nature, the establishment of the scientific method and of science as the most suited means for investigating and capturing the essence of the reality led also to another downside, that is the tendency to downgrade other sources of knowledge (e.g. spiritual, religious, embodied) and to place an unquestionable optimism on science,

its discoveries and its direct applications, which are technological advances (De Sousa Santos, 2016; Herrero, 2021). And yet, a blind optimism towards scientific methods and technological solutions risks limiting society's ability to question itself and its own self-destructive dynamics (Plumwood, 2002). According to Escobar (2014), the Western world fails to undertake an internal critique because it relies too much on a faith in science as "absolute" and "neutral" (p. 49). In doing so, it also fails in recognising the validity of other forms of knowledge, such as those presented by subaltern and Indigenous groups, resulting in their invisibilisation.

To summarise, it can be argued that Cartesian dualism, paired with the prevalence of the scientific method, represent the pillars of an anthropocentric ideological apparatus, which radically separates the Western men from the "other" – being it nature, women, or Indigenous populations – and thus justifies the latter's exploitation and oppression. Such an ideological paradigm encompasses also other characteristics, such as technological optimism, individualism, competitiveness, and the idea of progress as a materialistic, infinite growth of production and consumption. And it is precisely such an ideological paradigm that lies at the basis of the capitalist and extractivist socio-economic system, which is fuelling the present climate and ecological disruption (Herrero, 2021).

Understanding the link between the ideological apparatus, the socio-economic system and the eco-climate crisis highlights an important nexus: the ecological and climate crisis we are facing represents a crisis of the Western modern society and its deeply embedded values and core ideas (Gil, 2020; Herrero, 2021; Pérez Orozco, 2020). Therefore, in order to imagine a solution to the current situation, a mere technological approach appears insufficient. Although we witness an attempt made in the general discourse, which aims at naturalizing the current economic model, its inherent dependence on growth and technological optimism, thus creating taboos in the general narrative which prevent the system from being criticised (Grossmann et al., 2021), that is precisely the shift needed: a deep questioning of the socio-economic system and the cultural, ideological beliefs that keep it alive (Escobar, 2008). In the words of Oppermann and Iovino (2016):

> It is imperative to seek new modes of thought that would shift our mindset towards a disanthropocentric discursive change, which in turn will create and implement more sustainable economic practices, social behaviors, and moral paradigms. (p. 5)

It is by now clear that the modern, capitalist, materialistic and consumeristic concept of development is not replicable on a global level, since it is not compatible with the ecological limits that make the

survival of the human species possible (Acosta, 2015). Not only does the current socio-economic system contradict the ecological principles, it is also strongly dependent on social inequalities. Reversing this pattern requires questioning the system not only on a material basis, but also on a cultural and spiritual one (Burn, 2011; Dahl, 2012; Restrepo, 2022). As Escobar (2008) phrases it:

> To build a more sustainable relation with the planet we'd have to revers some of the pillars of modernity, such as the division humas/no humans, the utilitarian use of nature, and in general restructure profoundly Western political, economic, religious and cultural institutions that are at the base of current "disintegration of life systems". (p. 308)

After having described the ecological and climate situation as inherently dependent on the modern capitalist, extractivist socio-economic system and its ideological paradigm, thus arguing for the need of a change in the latter, it is important to delve more on the concept of "ecological transition" that the present situation calls for.

2. Defining the ecological transition

The civilisation crisis previously outlined calls for a deep, paradigmatic change. When talking about the ecological and climate crisis, it is common to associate it with the concept of "ecological transition". And yet, the meaning of such a transition is not unambiguous nor self-evident.

The first time I encountered the term "ecological transition" it was embedded in an activist context. When I started taking part in climate justice marches, and when I joined local activist groups, one of the most common slogans used was "system change, not climate change". We were demanding a structural transformation. In that context, then, the "ecological transition" appeared with a specific connotation, which can be summarised as a shift towards a social and political model characterised by a just and harmonious relationship among human beings, with the ecosystems and the living planet. This view is common not only in activist circles, but has also gained increased popularity in academic fields, such as that of the environmental humanities (Oppermann & Iovino, 2016). However, this is not the only way the "ecological transition" can be understood. A second conceptualisation of the "ecological transition" can be derived from political, social, and technocratic discourses, whereby emphasis is placed only on the technological transformations aimed at producing less pollutants and adopting more efficient and clean energy sources. In this sense, a clear example is represented by the

European Green Deal, based on policies of greenhouse gas emissions reduction, and intending to make the economy "modern, resource-efficient and competitive" (European Commission, n.d.).

To summarise, there are two possibile connotations that can be associated with the term "ecological transition". To describe them, I will borrow the definitions presented in the online enciclopedia Treccani (2021):

1. Process through which human societies interact with the physical environment, aiming for more balanced and harmonious relationships within local and global ecosystems.

2. In a narrower and more concrete sense, a process of technological conversion aimed at producing fewer pollutants. (*my trans.*)

These definitions reflect the two existing postures regarding the changes to be undertaken in order to confront the ecological and climate crisis. One of them is technology-based: without questioning the current socio-economic model, it advocates for technological adjustments that would imply a shift in the energy production system, thus resulting in a cut on global greenhouse gases emissions. This approach – which exemplifies the modern technological optimistic attitude – appears nevertheless flawed. On one hand, as previously mentioned, climate change is just one component of a much larger and interconnected process of ecological disruption and global overshoot. Extrapolating the issue of climate change and global greenhouse gas emissions and hoping to solve it separately from the context appears to be limited and insufficient (Seibert, 2021). This does not mean that technological advances will not play a pivotal role in the transition needed, quite the opposite. And yet, as long as science and technology will be guided by the market or by the prevailing capitalist ideology, they will not serve the aim (Escobar, 2014). Moreover, only focusing on a technological shift may hinder and replicate social injustices, or even create new ones (Wang & Lo, 2021). As Plumwood (2002) rightly points out:

> Technofix solutions make no attempt to rethink human culture, dominant lifestyles and demands on nature, indeed they tend to assume that these are unchangeable. They aim rather to meet these demands more efficiently through smarter technology, deliberately bracketing political and cultural reflection and admissions of failure. But we did not just stumble by some freak technological accident into the ecological mess we have made […]. Our current debacle is the fruit of a human- and reason-centred culture that is at least a couple of millennia old, whose

> contrived blindness to ecological relationships is the fundamental condition underlying our destructive and insensitive technology and behaviour. (p. 8)

For these reasons, I argue for the need to embrace the broader definition of the "ecological transition", as the first conceptualisation suggests, whereby technological shifts are embedded in a general social, economic, political, and cultural transformation. Such a transformation would take the form of a paradigmatic shift, replacing the ideas and values that foster and sustain the eco-climate crisis, with those that can sustain a different, more harmonious relation among humans and with the planet (Oppermann & Iovino, 2016). Since the cultural and epistemological framework shapes the way people see the world and act in it (Escobar, 2008; Gil, 2020; Ratner & Holen, 2007; Restrepo, 2022; Trevisam & al., 2020), I also suggest that it is fundamental that an ecological transition is underpinned by a cultural shift where ecological principles and socio-ecological justice are re-integrated.

2.1 Ecology and ecological principles

The first relevant aspect concerning the necessary cultural and epistemological shift underlying the ecological transition is that of resorting to ecology and its principles. Among all the sciences, ecology is perhaps the most suited to provide a description of reality, since it studies the relationships between living beings and between biotic and abiotic elements, that is, the living environment we are surrounded by, part of, and dependent on. Yet, we witness a paradox. Western modern society is strongly reliant on science and scientific discoveries as the privileged means to scrutinize reality, up to the point where such an attitude has come to contaminate all aspects of society, including those that do not directly relate to science – as previously stated, scientific and technological optimism extend to and are deeply embedded in our cultural, political, and economic framework (Plumwood, 2002). Ecology is a science, too. And yet, the laws and principles of ecology are not given as much relevance as to inform our commonly held epistemological stance (Capra, 1994). While an unquestionable trust is placed on the power of scientific and technological innovation as a way to solve societal problems related to the climate and ecological crisis, poor attention is given to the possibilities that an ecological understanding of reality could provide. On the contrary, if the problem can be described in ecological terms, then its solutions can also be found in the ecological realm, that is, by "(re)situating humans in ecological terms" (Plumwood, 2002). However, considering ecology merely in its scientific niche might be insufficient. What is necessary, instead, is to expand the ecological consciousness beyond its strictly scientific domain and integrating it in the cultural and epistemological spectrum as well, as the proponents of ecosophy, deep ecology or the "new ecological

paradigm" argue (Capra & Capararo, 1997; Kunchamboo et al, 2021; Naess, 2005; Trevisam et al., 2020). In this sense, the ecological transition would then be defined as a transformation towards an ecological culture.

In order to understand the implications of this cultural shift underpinning the ecological transition, I must first define ecology, its history, and to then highlight its most relevant principles.

Ecology, a term derived from the Greek words "oikos" (house) and "logos" (study), is a discipline that delves into the intricate relationships among organisms and their environments. It serves as a linchpin for understanding the complex web of interactions that shape the natural world. The roots of ecological thought can be traced back to ancient philosophical traditions, with early scholars contemplating the interconnectedness of living organisms and their surroundings. However, the formalisation of ecology as a distinct scientific discipline emerged in the late XIX and early XX centuries. Pioneers such as Ernst Haeckel and Alfred Russel Wallace laid the groundwork by investigating the dynamics of ecosystems and the interdependence of living organisms. Haeckel, in particular, coined the term "ecology" in 1866, framing it as the study of the household of nature. As ecological principles evolved, the discipline transcended its initial focus on individual species to encompass the broader dynamics of communities, populations, and ecosystems. Indeed, in the 1930s, Artur Tansley defined the ecosystem in terms of "dynamical unit". The study of ecosystems was then advanced by Odum, who would focus on the flow of energy and materials. The importance of the functioning of an ecosystem and, more importantly, of the direct dependence of human well-being on it has more recently been enshrined in the concept of "ecosystem services". The rise and evolution of ecology, which has changed all along the XX and XXI, shifting its focus from evolutionary ecology, to ecological thinking, and to conservation, reflect the need to understand the interaction between human society and the so-called natural environment, which is not a novelty of our times, as Seidler & Bawa rightly point out. The difference, nowadays, is that from such an understanding depends the survival of the human species on the planet and this is what makes it particularly relevant (Seidler & Bawa, 2016).

During its evolution, ecology has developed some foundational principles to describe the interaction among living beings and their environment. Among them, those that are relevant for our discussion stem mainly from community ecology and ecosystem ecology. The first refers to the study of communities, defined as group of individuals belonging to different species sharing the same habitat

at the same time; the second, instead, focuses on the ecosystem level, identifying the ecosystem as a community of living organisms and their interactions with their abiotic (non-living) environment.

2.1.1 Focus on community and system, rather than on the individual

The first principle that one can infer from an ecological understanding of reality is that the individualistic approach, which is instead so relevant in Western dominant epistemology, is an illusion. Reality is made up of individuals which interact within communities and ecosystems and whose structure and functioning is directly shaped by these systems. Indeed, when describing an ecosystem in ecological terms, the word "nesting of system" is adopted. It consists of identifiable, self-organising parts (or *holons*). They are wholes composed of parts, but at the same time part of a greater hole, meaning that each system is independent, but at the same time it consists of other systems. The individual, for instance, is then part of a community, which is itself part of an ecosystem. Although it is possible to describe the functioning of each individual as a self-organising system, its conformation is then linked to the fact that it belongs to wider systems, namely that of a community and of an ecosystem. By describing the natural environment in these terms, ecology then highlights the importance of considering the collective dimension, instead of being limited to the individual one (Robertson & Choi, 2010).

2.1.2 Interconnectedness and interdependence

The importance of focusing on the collective, instead than on the individual level, is bolstered by another ecological principle, that of interconnectedness or interdependence. In an ecosystem, every factor, be it biotic or a-biotic, is connected in space and time; therefore, any unit depends on the others, either directly or indirectly (Capra, 1994). In the intricate tapestry of nature, no organism exists in isolation; instead, each individual is intricately woven into the fabric of its environment, relying on and influencing others in a delicate balance. The concept of interdependence highlights the mutual dependencies that drive ecological systems, emphasizing that the health and survival of one species are often intricately linked to the well-being of others. Whether through symbiotic relationships, predator-prey dynamics, or the interconnectedness of food webs, every organism plays a role in maintaining the equilibrium of the ecosystem (Robertson & Choi, 2010).

Such a principle has important implications. It suggests the need to reconfigure the concept of "life" in a time of global disruption as the Anthropocene, moving from *bios,* the unique and individual

existence, to *zoé*, the life that connects every living being within the natural cycle (Pulcini, 2020). Moreover, it stands at odds with Western individualistic epistemology and the social, political, and economic apparatus it sustains. Indeed, when ecology appeared as a science, it was considered "subversive":

> The realization that the biosphere is the real 'unit' and it is driven by an interdependence among biotic and abiotic components challenges both small minds and big governments. It is a realization that subverts any nationalistic philosophy that promotes the importance of one political, economic, or disciplinary group over others. (Meyer & Helfman, 1993, p. 571)

Moving from this posture and expanding it, we could argue that relying on the ecological principle of interdependence challenges the current socio-economic apparatus, which is instead so strongly reliant on the presumption of separateness as to have devised a mode of production and consumption that is based on the exploitation and destruction of the natural environment, as if such an impact could be considered a "side effect" of development. Instead, ecology teaches that any action undertaken to subvert one unit of an ecosystem will inevitably have an impact on all the other components too. And this is precisely what we are witnessing nowadays, with the eco-climatic crisis unfolding as a result of having disregarded human intricate connection with its non-human environment.

To systematise the idea that human well-being is directly dependent on the ecosystem's thriving, the idea of "ecosystem services" (ES) was coined. They represent the direct or indirect contributions of nature to human well-being and can could help to assess the (strong) dependence of our species (humans) from all the others. Usually, ES are divided in four groups:

- Regulating services, which refer to the benefits obtained from the regulation of ecosystem processes, such as carbon sequestration and water purification;
- Provisional services, which identify the material products obtained from the ecosystem;
- Supporting services, which point at the importance of all processes "supporting" all the life cycles;
- Cultural services, which include ''nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences" (Millennium Ecosystem Assessment, 2005, p. 40). They are intangible and

incommensurable; based on human co-production; include the concept of value and are place-based (Dickinson & Hobbs, 2017).

The term "ecosystem services" first appeared in 1997 in a study aimed at quantifying their economic value, which then concluded that it had been widely underestimated in mainstream economic thinking (Costanza et al., 1997). Since then, academic and scientific interest on the role and importance of ecosystem services has spread. However, such an approach has been criticised as well, due to the inherent limits of trying to assess the ecosystem's values in economic terms. Moreover, focusing solely on the link between biophysical factors and the production of ecosystem services conceals the role played by humans in maintaining or modifying some ecosystems and the benefits that stem from such an interaction, together with the meaning and value attached to it (Dickinson & Hobbs, 2017). Anyway, overall, the introduction of the "ecosystem services" framework presents positive impacts, such as that of providing an ad-hoc terminology to describe the dependence of human well-being on that of the health of the ecosystems. This nexus was clearly stated in Millennium Ecosystem Assessment and supported by scientific evidence since then: "Ecosystem services are indispensable to the well-being and health of people everywhere" (Millenium Ecosystem Assessment, 2005, p. 2). This, in other terms, points to the fact that humans are not severed and nor independent from their environment, but rather that a dynamic of interdependence is constantly unfolding.

2.1.3 Relationality

The concept of interdependence is closely linked to that of relationality, which implies a shift from the focus on separate entities and subjects to the links and relations that bind them – a posture that is mirrored by Bourdieu's sociological approach (Lejano, 2019). Indeed, adopting an ecological stance, one could define an ecosystem (and broadly speaking, socio-ecological systems) as a "web of relationships" (Lejano, 2019, p. 8). Not only ecology, but physics and biology have come to describe reality in similar terms. As Capra elucidates, the quantic theory has contradicted physicians' endeavour to discover the smallest, most fundamental "brick of reality". What it showed, instead, is that it is not possible to break down reality in single, independent units. Rather, the foundation of reality is a "web of relations" which connect the various parts of the system. Moreover, such relations involve as well the one between the observer and what is observed. The properties of a subatomic object can indeed only by described as the result of the interaction between the observer and the object that is being observed. Understanding the fundamental role that relationships play in describing and understanding reality questions profoundly the Cartesian thought at the basis of Western epistemology

(Capra, 2005). However, the predominance of relationality over individuality has an even deeper meaning: it does not only shift our point of view of reality, but also on ourselves and on how we conceive our identity (Pulcini, 2020). An ecological thought, ultimately, points to the fact that we are relational beings, meaning that our own identity is defined by the relationships we weave with other human and non-human beings (Lejano, 2019). Again, such a view is supported by the latest advances in biological research, especially those concerning the microbial world. Thanks to the latest technological advances, we now know that only 1 % of the human cells have human origins: the remaining are microbial (Benezra, 2021; Hendy et al., 2021). And since microbes represent the marker of our interaction with our surroundings, this discovery deeply challenges the very notion of human identity as single, separated individuals. Relationality could then be understood a way to re-define human identity as inherently dependent on its interactions with human and non-human agents (Gil, 2020; Yaka, 2019). To better seize this point, building from her background on physic, philosophy of science and feminism, Barad suggests to replace the word "interaction" with "intra-action", implying that individuals do not pre-exist their relations, but rather that their identity emerges as a co-constitutive process (Kleinman & Barad, 2012, p. 77). Again, the Cartesian epistemology and ontology, which informs societal values such as that of individualism and separation between humans and non-human agents, is fundamentally contradicted.

2.1.4 Cooperation, instead of competition

Another social theory which presents itself as a continuation of the Cartesian dualistic and hierarchical epistemology and which is reflected by cultural, social, and economic norms today is that of social Darwinism. The studies undertaken by Darwin on natural selection and "the survival of the fittest" (a term borrowed by Spencer) were determinant in shaping the social theory that is named after him (Claeys, 2000). According to social Darwinism, society is viewed as a group of individuals, engaged in a perpetual struggle among each other for the appropriation of resources, and where only the fittest prevails, eventually leading to the emergence of a higher social type (Claeys, 2000). It follows that values as individuality, selfishness, and competition came to be seen as fundamental laws of social evolution and exerted a long-lasting influence on Western thought from the XIX century on (Claeys, 2000). Today, the same ideas are embodied in the functioning of the capitalist market economy, based on the laws of competition and the "survival of the fittest".

Individuality and competitiveness have then surged to define social interactions in a wider sense and can be recognised in cultural norms and social, economic, and political institutions. The reliance of

those ideas on the biological and evolutionary theory provided in Darwin's *Origin of Species* (1859) has resulted in a wide and unquestioned acceptance of such norms as mere "laws of nature". However, taking a closer look at ecology and its insights reveals that such a view is partial. Indeed, in community ecology, the branch describing the interaction between individuals of the same species, competition is defined as just one of the possible modes of interaction, along with predation and symbiosis. In particular, symbiotic relationships, those which imply a long-lasting relationship where species live in intimate contact, play a pivotal role. Symbiotic relationships can be further divided into three groups: mutualism, commensalism and parasitism. While in a mutual symbiotic relation, both individuals of the species obtain a benefit, in commensalism it is just one who benefits, while the other is not affected, neither positively nor negatively. Parasitism, instead, defines a relation that is more similar to competition; however, it is listed as part of the symbiotic relations since the predators stays with the prey over time. What is interesting to note is the consequence of the various types of interactions on the individuals' energy budget: while competition, predation and parasitism result in a lower level of energy for at least one of the two individuals, mutualism and commensalism have a positive impact in the sense that they increase the level of energy of either one or the two organisms. Such an insight reverses the idea that positive social outcomes only result from competition, as it is implied by the social Darwinist thought. Instead, it reaffirms the value of cooperation as an essential and beneficial mode of interaction. This shift provides the basis for cultural, social, political, and economic changes too, such a move from the market, capitalist economy based on exploitation and competition to a feminist "economy of care", grounded instead on "care of life", "cooperation", "complementarity", "reciprocity" and "solidarity" (Acosta, 2015, p. 325, *my trans.*).

2.1.5 Valuing biodiversity, ecocentric view

The ecosystem functioning, that means all the ecological processes, depends on the biodiversity. The ecosystem's health and possibility to thrive is directly linked to the number of species in contains (Brockerhoff et al., 2017). Not only is the richness and variety of an ecosystem a core component; it also implies that, even within such an abundance, every organism plays a role, which is defined by its ecological niche. The loss or alteration of even one species can have a cascading effect on the whole ecosystem. Understanding the importance of biodiversity and the fact that each part of the ecosystem assumes a specific and valuable function is another principle that stands in contrast with the anthropocentric view of modern Western society. While the latter relies on the idea of the centrality of men in the environment, and the subsequent subordination of everything else to him –

again, not only nature, but women and marginalised categories as well - ecology points to an ecocentric paradigm, which places equal value and importance to any unit of the system, human and non-human alike.

2.1.6 Energy provision and nutrient cycling

Another law that regulates the functioning of an ecosystem is the closure of matter cycles, that means no waste production, in an ecosystem, since what it is considered waste for one species becomes a source of energy for others. While energy flows through the ecosystem unidirectionally (it enters as solar energy and is then leaves in form of heat), the transformation of matter is cyclical. Again, such a principle is not followed in the actual mode of production and consumption, making the problem of waste one of the many symptoms of the socio-economic crisis we are living in.

2.1.7 Ecological limits and equilibrium

One last principle that emerges in ecology is that of limit, which is also expressed in terms of "carrying capacity". The carrying capacity is defined as "the limit of growth or development of each and all hierarchical levels of biological integration, beginning with the population, and shaped by processes and interdependent relationships between finite resources and the consumers of those resources" (Del Monte-Luna et al., 2004, p. 488). In order to maintain balance and to flourish within an ecosystem, every species is subjected to such limits. It cannot grow indefinitely. Again, this ecological principle seems to be absent in the current socio-economic configuration, which is instead deeply and unquestionably rooted in the possibility of an infinite growth in production and consumption (Acosta, 2015; Hickel, 2020).

To summarise, ecology can provide useful insights that could shape the type of ecological transition needed to face the present crisis. The prominence of the collective rather than the individual dimension, interdependence/interconnectedness and relationality instead of separateness, cooperation in the place of competition, ecocentrism instead of anthropocentrism, recycling instead of waste production and the respect of limits instead of unlimited growth are some of the key principles we can discern from an ecological understanding of reality. As we have seen, they contradict on various levels the current socio-economic order and its ideological paradigm. Therefore, if the current crisis can be described in terms of a civilization crisis which leads us to question the pillars of Western modern ideological paradigm and the related cultural, socio-political, and economic institutions –

individualistic, capitalistic, extractivist, neocolonial and patriarchal - , than a paradigmatic shift that re-integrates the ecological principles previously outlined is necessary. In the words of Robertson & Choi (2010), "humanity must become more ecologically minded" (p. s91). Again, it is important to stress that since "one's hopes and politics are largely the result of the particular framework through which we analyze the real" (Escobar, 2008, p. 284), and considering that social practices are linked to cultural values (Ratner et. al., 2007; Restrepo, 2022), the transition should happen on an epistemological and cultural level first, to then incorporate wider changes in the social, political and economic structure of society (Robertson & Choi, 2010; Trevisam et al., 2020).

2.2 From environmental justice to socio-ecological justice

The ecological transition as it has been described so far would integrate ecological principles on an epistemological and cultural level. However, a second aspect that is worth considering is that of social justice.

Indeed, the eco-climate crisis is strongly linked to social justice issues. As it was mentioned, not only is the current socio-economic system characterised by deep social inequalities; it is also fundamental to highlight that the poorest people and countries, those that have less contributed to the climatic and ecological alteration, are also the most affected ones. Therefore, when envisioning the kind of change that an ecological transition would embody, specific attention should be paid to social justice. In the following section I will delve more in the concept of justice within the ecological transition.

The idea of social justice in relation to the envirnmental-human nexus precedes the latest climate justice movement and it dates back to the concept of "sustainability" and "sustainable development". In its original definition, it enshrined the concept of intergenerational and intra-generational justice. Indeed, sustainable development would imply "meet[ing] the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). Such definition, though, is considerably vague and gave rise to several, including conflicting, interpretations. The two most known stances are that of weak of strong sustainability. Weak sustainability posits that social, ecological, and economic capital can be exchanged or substituted, with the objective of preserving the total capital stock. It does not advocate for significant alterations to socio-economic systems but rather suggests adjustments aimed at counterbalancing losses. On the other hand, strong sustainability contends that both natural and socio-cultural capital are integral to a larger system and cannot be interchangeable or replaced (Grossmann et al., 2021). Dividing the

concept of sustainability into three interlaced but distinguishable pillars – economic, social, and environmental – has generated an apparent contradiction: for instance, the idea that to achieve a sustainable development it is possible to rely on continuous economic growth (Grossmann et al., 2021). The way justice is defined in the sustainability framework appears than not only too vague, but also apt for interpretation that could lead to opposite ends.

Apart from being present in the notion of sustainability and before being incorporated in the climate justice lexicon, the idea of social justice appeared also in the environmental justice movement (Schlosberg & Carruthers, 2010; Schlosberg & Collins, 2014). According to Scott (2014), environmental justice can be defined as "a social movement, and a theoretical lens, that is focussed on fairness in the distribution of environmental benefits and burdens, and in the processes that determine those distributions. That is, it is concerned with both the 'fair treatment' and the 'significant involvement' of poor, racialized and indigenous communities in environmental policy and natural resource development decisions" (p. 3). The movement surged in the 1980s in the United States and was led by poor communities of colour that would oppose the unequal distribution of environmental harm, in particular that related to the concentration of polluting industries in the lower socio-economic neighbourhoods (Scott, 2014).

From the environmental justice movement, social justice came to be a pillar of the climate movement as well, though it varies in its definition (Wang & Lo, 2020). Indeed, scholars and proponents of environmental justice have come to view climate change as an additional environmental challenge that highlights the overarching social injustice faced by impoverished and minority communities. The unfair consequences of climate change, encompassing not just the disparity in impact but also other injustices like insufficient acknowledgment and inclusion in political decision-making, serve as yet another illustration or indication of societal inequity (Schlosberg & Collins, 2014).

All of this considered, it follows that social justice is at the core of an ecological transition. And yet, although there is wide agreement on this point, the approaches on how to reach it differ, just as it happened with the idea of sustainability and its practical implications. While a "reformist" stance relies on the belief that it is possible to shift towards a green capitalism, others identify in the capitalist economic system the root cause of global injustices and environmental degradation (Grossmann et al., 2021).

The cause of the problem appears to be that in defining "justice" in the sustainability, environmental justice and climate justice framework, no attention is given to the ecological side, and this, in turns, generates contradictions at the time of implementing of the concept. For this reason, scholars and activists have recently proposed another terminology: socio-ecological justice (Calcagni et al., 2019; Stevis & Felli, 2016; Barton & Román, 2012). Yaka (2019) defines in the following terms:

> It builds on the interconnection between the two, between humanity and ecology, nature and society/culture, human and non-human life. It is about recognising the right of human and non-human worlds to live and flourish together in their environments free from social and ecological destruction and degradation. This conception of justice draws on the intrinsic relationship between ecological and social spheres, and requires a conceptual framework that would combine conceptions of justice to humans in relation to their natural environment and of justice to nature. (p. 363)

In conclusion, social justice has been incorporated in the struggle for environmental and climate justice and in the definition of a sustainable development for the future. Consequently, when referring to the ecological transition, it is inevitable to place social justice at its core. However, relying on the socio-ecological justice framework is helpful in highlighting the necessary connection between social justice and the ecological dimension.

3. With a decolonial gaze: Indigenous people and the ecological transition

As it has been argued so far, the ecological and climate crisis appears to be a crisis of the values and the ideological framework which shaped Western society's interaction within the human and non-human realm, resulting in an exploitative attitude towards marginalised groups as well as towards natural resources. Consequently, the ecological transition can be framed as a shift towards an alternative epistemological/cultural paradigm, one that is grounded in ecological principles and socio-ecological justice, in order to shape social, political and economic institutions accordingly. Moving from Ingold's (2018) definition of anthropology as a tool to construct a self-critique by "taking the other seriously", it can be argued that, in the endeavour of shaping and understanding what an ecological transition could look like and the "transformative changes" it could imply, referring to Indigenous people is fundamental (McGregor, 2020, p. 37).

The first reason is a social justice issue. As explained by Escobar (2008), Western modernity emerged in conjunction with the colonization of the Americas - or Abya Yala, as South American intellectuals and activists refers to it, following a decolonial posture (Porto-Gonçalves, 2011). Ideologically speaking, colonisation was justified and legitimised by a double separation: human was severed from nature, just as Europeans were seen in contrast to Natives. Such separation was used as an ideological framework to support the domination of the colonisers over Indigenous people and territories (Acosta, 2015). The process of colonisation gave rise to a "coloniality of power" (Quijano, 2000) that shaped the uneven and hierarchical dynamics inherent to the modern, capitalist world-system (Santamaría, 2013), which are still at play today. Indeed, an uneven and exploitative interaction between the countries belonging to the Global North and the Global South continued all along the XX century, when the idea of development was adopted not only as a means to control and influence South American countries on an economic and geopolitical level, but also as a way to exert "biopolitical power" over the bodies of Indigenous, working-class and gendered people. This, again, implied extraction and exploitation of natural resources as well (Powell, 2006, p. 128).

Indeed, the colonial project is just another form of environmental injustice, which operates as an "ecological form of domination" and "violent disruption of human relationships to the environment" (Whyte, 2018, pp. 125, 136). Although the environmental justice framework encompasses the struggles taking place from the 1980s on, from an Indigenous, Native American perspective this view omits the fact that colonisation was one of the major environmental injustice cases in history. In the words of Dhillon (2021), "Indigenous peoples […] have had to survive environmental catastrophe since the initiation of the colonial project. From the vantage point of Indigenous resistance, the environmental crisis aligns with the time of colonialism" (p. 901). The Indigenous environmental justice framework (IEJ) captures the nexus between environmental injustice and colonialism, highlighting that:

> From an Indigenous point of view, environmental injustices, including the climate crisis, are therefore inevitably tied to, and symptomatic of, ongoing processes of colonialism, dispossession, capitalism, imperialism/globalization and patriarchy. (McGregor et al., 2020, p. 36)

The eco-climate crisis, then, can be reconfigured as a continuation and "intensification of colonialism" (Dhillon, 2021; McGregor et al., 2020, p. 36), with Indigenous people being among the most affected by its consequences. As a result, the ecological transition, with socio-ecological justice at its core, presents itself as an opportunity to undertake a "decolonial project" (Escobar, 2008, p.

155; McGregor et al., 2020). If the construction of modern society and its political-economic system – whose destructive implications have already been outlined – was rooted in colonialism, dismantling and re-articulating the modern apparatus in the face of the ecological and climate upheaval necessarily means to challenge colonialism too, in all of its forms. This means placing historically marginalised and oppressed categories at the centre of the ecological transition. And this includes, of course, Indigenous people.

It is important to emphasise the connection between coloniality, modernity and the ecological and climate crisis, and, consequently, the necessity for an ecological transition to be grounded in socio-ecological justice and to be re-configured as a decolonial project as well. This becomes even more pressing when witnessing how the ecological transition is used as a means to legitimise another wave of extraction and exploitation of Indigenous people and land in the name of a "green" transition (Dorn, 2022; Jerez et al., 2021). When, instead, socio-ecological justice is placed at the core of what it means to undertake an ecological transition, such practices cease to be coherent with this framework and become blatantly contradictory. In sum, grounding the definition of the ecological transition in the idea of socio-ecological justice should prevent such a transition from becoming another way of perpetrating exploitative and neo-colonial practices.

Indigenous people have been colonised and dominated not only on a material basis, but also on an epistemological one (De Sousa Santos, 2016; Watts, 2013). In the process of reconfiguring modern Wester ideological and cultural paradigm, resorting to Indigenous cosmologies, knowledge, and practices becomes not only a promising and fruitful possibility (McGregor, 2020), but it also a way to render epistemic justice. Indeed, Indigenous people's centrality in the discourse on an ecological transition is not only a matter of justice. Indigenous people, with their specific ontologies, cosmologies, socio-political structures, and ways to relate with the non-human environment, emerge "in the cracks of the modern colonial world system" and exemplify "possible reconstruction of local and regional worlds on different logics which […] may get to constitute narratives of alternatives to modernity" (Escobar, 2008, p. 162).

In the face of the civilisation crisis generated by the eco-climate crisis, Indigenous movements, resistance, and existence highlight two major points: on one hand, that the current system is inherently excluding and colonial; on the other, that alternatives do exist (Restrepo, 2022). And they exist as alternative civilisation models that integrate ecological principles on a cultural, epistemological, and ontological level (Acosta, 2015; Escobar, 2014; Fenelon & Alford, 2020; Milgin et al., 2020; Thomas,

2015; Whyte, 2013), which result in social and territorial dynamics more apt to preserve a balance between society and its environment (Salmon, 2000). Again, if the ecological transition aims precisely at this goal, namely shifting towards a socio-political model suitable for maintaining a planetary ecological balance, then Indigenous proposals become signposts in the face of the climate and biodiversity crisis (Dhillon 2021; Escobar, 2014).

The Indigenous socio-political proposal can be summarised in the concept of *Buen Vivir*. The term has been widely used and adopted as a political tool by Indigenous movements in South America and is mirrored by similar concepts around the world (Acosta, 2015; Velasco-Herrejón et al., 2022). It is an umbrella term, comprising a variety of specific forms of interpreting and enacting it, yet it is useful because it summarises how an Indigenous alternative vision of development aligns with the characteristics of the ecological transition outlined so far, especially that of integrating ecological principles and socio-ecological justice.

Indeed, the concept of *Buen Vivir* encapsulates a profound philosophy that diverges from conventional Western perspectives on development and well-being. Emerging predominantly from the Andean region, this paradigm emphasizes a holistic understanding of life, intertwining ecological balance, cultural integrity, and social harmony. *Buen Vivir*, which translates to "good living" or "living well," challenges the prevailing notions of progress that often prioritise economic growth at the expense of environmental sustainability and cultural diversity. Instead, it promotes a symbiotic relationship between humans and nature, recognising the interconnectedness of all living entities. In this framework, the pursuit of material wealth takes a backseat to the cultivation of harmonious relationships with the environment, community, and oneself. *Buen Vivir* implies a move from an extractivist, growth-driven and competitive economy, which disregards the planet biophysical limits, to an economy based on sufficiency, solidarity, cooperation, and care; an economy where the goal is not profit or growth on its own, but rather human dignity and ecological balance. It promotes immaterial and spiritual wealth, instead of the pursuit of material gains. And in order to satisfy current generations' needs without compromising those of the future generations (just as the "sustainable development" supposedly aims at), it suggests processes of wealth redistribution and the implementation of a criterion of sufficiency, rather than relying on energy efficiency and unquestioned economic growth (which are, indeed, false or partial solution) (Acosta, 2015; McGregor, 2020; Schlosberg & Collins, 2014). The Universal Declaration of the Rights of Mother Earth, released after the Cochamba conference, is clear in proposing the *Buen Vivir* as the basis of the

new social system needed in the face of the ecological and climate crisis (World People's Conference on Climate Change and the Rights of Mother Earth, 2010).

However, considering Indigenous experiences merely as examples to follow is not only simplistic, but it also does not thoroughly convey the influence that Indigenous socio-political proposals entail. Their scope and depth is better captured when analysed through the political ontology framework proposed by Blaser, Maria de la Cadena and Escobar (2014). In their view, ontology refers to people's assumption on what it means that something or someone exists. A specific ontology entails coherent practices. For instance, a dualistic ontology, based on a separation between the subject and the object, leads to an exploitative attitude towards natural resources. A relational ontology, based, instead, on relationality and interdependence between the subject and the object, implies in an attitude of care (Escobar, 2014). The "political ontology" framework highlights the "political dimension of ontology and the ontological dimension of politics" (Escobar, 2014, p. 1). This implies that any given ontology shapes the political practices and imaginary, but also that political conflicts may be reconfigured as ontological conflicts. In this sense, Indigenous political proposals, such as that of *Buen Vivir*, Indigenous movements and practices are re-defined not just as expression of a different culture, but of a different way of being. They construct and defend other worlds. And this is a crucial point, since it contradicts the idea the modernity, with its current socio-political, economic configuration, is the only world existing. In an historical moment haunted by an imagination crisis where alternatives to the current capitalist reality seem unconceivable (Fisher & Mattioli, 2018; Ghosh, 2017), political ontology asserts the opposite. It works against the idea that the world constructed on the principles of modernity is the only existing one. On the contrary, it "re-situates this modern world as one world among others" (Escobar, 2014, p. 108). In this sense, Indigenous struggles and political propositions are ontological practices, in the way they defend those worlds and prove that alternatives to the capitalist, extractivist modernity already exist. This, in conclusion, does not imply that Indigenous' models should be used as a reference point and applied on a global level: this would mean ignoring their located historical, cultural, and even ontological specificities. However, they can serve as a contrasting point, as well as inspiration, to inform the process of profound, transformative changes the eco-climate crisis is calling for.

To summarise, it has been argued that the ecological and climate crisis we are facing today are the result of the modern capitalist, extractivist socio-political system, based on a Cartesian dualism, which justifies the exploitation of marginalised categories and nature, generating social injustice and ecological disruption. Secondly, the idea of "ecological transition", which becomes key in the face of

such socio-environmental upheaval, was introduced and problematised. Indeed, from social, political, activist, and academic discourses, the same notion appears to assume different connotations: one is based on a mere technological shift, while the other questions the ideological, cultural, and socio-political system in a broader sense. Building from this second conceptualisation of the ecological transition, I argued for the need to consider the ecological transition as a shift towards a cultural paradigm and socio, political, economic model based on ecological principles and socio-ecologic justice. Moreover, through the Indigenous environmental justice framework and a political ontological approach, I also advocated for the inclusion of Indigenous people struggles, propositions, and modes of existence, in the discourse about the ecological transition. For this reason, the present work builds its argument based on three cases studies regarding Indigenous mobilisations, cosmologies, and practices in Colombia.

Chapter 2 – The Indigenous movement in Colombia: challenging the dominant paradigm

In the previous chapter, the ecological transition has been introduced with its two possible conceptualisations, on one them being that of a cultural, social, and political transformation, which would aim to reintegrate principles of ecology and socio-ecological justice, thus fostering a more harmonious relationship among people and with the planet. Moreover, it has been argued that, in the discourse surrounding the ecological transition, it is fundamental to refer to Indigenous experiences. This is essential both for reasons of social justice and due to their inspirational role. Consequently, this chapter aims at providing the context of the Indigenous movement in Colombia, highlighting how its struggle and political vision mirror the idea of ecological transition previously outlined, that is a social and cultural paradigmatic change, with ecological principles and socio-ecological justice at its core.

To analyse a broad phenomenon like the Indigenous movement in Colombia, this chapter primarily focuses on the country's principal Indigenous organization – the ONIC. Its history and political vision are further complemented by insights from other Indigenous entities, conveyed through official declarations, interviews, or journals. By drawing upon this diverse range of sources, this chapter synthesises the alternative model embodied by the Indigenous movement in Colombia. Emphasis is placed on the pertinent points that resonate with the paradigmatic change underlying the ecological transition, as discussed in the preceding chapter. With this regard, it is fundamental to emphasise that the aim here is to provide a general overview and to extrapolate some key elements from Indigenous political discourses, practices, and worldviews. Although I recognise their variety, peculiarities, and differences, for operational reasons this work focuses instead on their commonalities, in order to provide a comprehensive image, which, I am aware, does not reflect thoroughly the complexity of Indigenous experiences, cosmovisions, political and cultural stances, but that proves useful in the endeavour of comparing the Indigenous model with the paradigmatic change inherent to an ecological transition.

The theoretical framework adopted in this section relies on some core ideas such as the concept of *reindigenización* (Chaves & Zambrano, 2006) and the construction of the Indigenous identity in terms of *nativo ecológico*, as proposed by Ulloa (2001), which will be expanded upon later. Moreover, it adopts the standpoint of the ontological turn and pluriverse proposed by Escobar and Viveiros de

Castro, among others (Cadena, 2010; Escobar, 2015; Kohn, 2015; Lazar, 2021; Viveiros de Castro, 1998; Soto Arias, 2020).

On a methodological level, criticisms usually arise when non-Indigenous scholars deal with Indigenous matters, since their legitimacy and authority on the topic can be questioned and labelled as academic extractivism (Alatas, 2022). Such criticisms have been considered when writing this section. Yet, while I recognize the inherent limits deriving from my positionality as a non-Indigenous scholar, I have strived to overcome them by resorting as much as possible to statements and communications stemming directly from Indigenous actors. In the context of this research, I have then opted for content produced by Indigenous organizations through their websites and official communications, the material retrieved from recognised Indigenous journals, such as *Unidad Álvaro Ulcué,* and the insights from Indigenous *planes de vida* ("life plans"), which are tools for political planification elaborated collectively by Indigenous communities and which contain information about them, about the changes they intend to undertake and their political stance with respect to the government on the long term (Monje Carvajal, 2014). They begin with an internal diagnostic of the observed problems and proceed with proposing structural adjustments. These documents are officially recognised by the Interior Ministry of Colombia and can be retrieved from its website. In addition, six semi-structured interviews were carried out with members of Indigenous political organizations, namely two members of the ONIC, one member of the *Organización de Autoridades Indígenas del Sur Occidente Colombiano* ("Organization of Indigenous Authorities of the Colombian South-West", AISO) and two members of the *cabildo* of the Magdalena department, a special public entity for the administration of Indigenous lands (Cabildo Arhuaco del Madgalena y Guajira, n.d.). They were recorded upon their permission, and the interviews were then transcribed, analysed through thematic coding (Bryman, 2012), and translated, since the language adopted in the conversation was Spanish. Lastly, academic bibliographic research completed the work.

The chapter is structured in the following way. The first section introduces the topic of Indigenous population in Colombia and articulates the difficulties with respect to a univocal definition of an "Indigenous identity". The second chapter, then, provides an historical overview of the Indigenous movement in the country, as embodied by two of its main organizations: the Regional Indigenous Council of Cauca (CRIC), first, which was followed by the National Indigenous Organization of Colombia (ONIC). Subsequently, the third section centres on how the Indigenous movement serves as an example of a social, political, cultural and including ontological mobilisation, embodying an alternative model sharing some of the claims pertinent to the ecological transition, as it has been

described so far, namely a structural change including principles of socio-ecological justice. Finally, the fourth section serves as both as a conclusion for the chapter and an introduction for the one that follows.

1. Indigenous people in Colombia and the debated question of identity

Colombia represents a fertile ground when it comes to Indigenous matters. As its Constitution recognised in 1991, the country is indeed multiethnic and pluricultural (art. 7, Constitución Política de la República de Colombia, 1991), with general and specific rights granted to special groups, such as that of Indigenous people (Laurent, 2005; 2012). According to the latest census, Colombia hosts an Indigenous population of 1.905.617 individuals, which belong to 115 different native groups. The most numerous are the Wayuu, Zenú, Nasa and Pastos, who represent the 58 % of the total Indigenous population of the country (DANE, 2019). This census adopted the "self-recognition" method to assess Indigenous presence in the country. However, the question of Indigenous identity is still a debated topic (Laurent, 2005) and it is thus appropriate to expand on this point.

Defining a person's identity is never a simple endeavour, since identities are constructed and relational (Archila, 2009; Ulloa, 2001). At the time of defining the presence of Indigenous population in a country, especially in the case of South America, two different methodologies have been employed over time: objective or subjective. Both possess advantages as well as shortcomings. One attempt to provide an objective marker for defining Indigenous identity has been based on language. According to this approach, a person's identity is defined by the language they speak. While this method has proven useful, it also poses challenges, especially in the case of bi- or multilingual individuals, as highlighted by the Bolivian census in 1992. This ultimately underscores the fact that relying on a single objective indicator is an unrealistic possibility (Lavaud & Lestage, 2012). To overcome similar constraints, subjective approaches have also emerged. Subjective methods involve asking each person to identify themselves as belonging to a certain category. Despite reflecting the person's self-perception more than the objective assessment method, this approach also entails some limitations. For instance, the ability to identify with a specific category is constrained by the number of choices presented in the questionnaire, resulting in an "induced" or "constrained" self-definition (Lavaud & Lestage, 2012, p. 12).

Notwithstanding the inherent limitations of the subjective methodology, self-recognition is now the prevalent method adopted in census in South American countries, including Colombia (Lavaud &

Lestage, 2012). Its application further highlights the complexity of encapsulating one's identity, especially the Indigenous ones, while also pointing to the fact that, since identities are a construction, they can vary over time. Indeed, the Indigenous population of Colombia increased by 36,8 % from 2005 to 2018. Such increase cannot be explained solely in terms of demographic growth, but it is also dependent on an increased sense of belonging to the Indigenous identity among the persons consulted (DANE, 2019). This trend can be justified by the fact that the perception of the Indigenous role within Colombian society has also changed along the centuries: if, in the past, belonging to an Indigenous group implied a lower social status, it has progressively changed its connotation, to the point of being proudly reclaimed by Indigenous actors in their struggles for social and political rights (Laurent, 2012). The process of identity re-appropriation by Indigenous people is described as *reindigenización* ("re-indigenization") by Chaves and Zambrano (2006). It emphasizes that identities are not only constructed but can also be used instrumentally to pursue social and political claims, as seen in the context of Indigenous struggles in Colombia (Archila, 2009).

Within the debate around identity, criticisms have emerged regarding the simplification of Indigenous identities as mere environmental stewards. According to Ulloa (2001), starting from the 1970s, Indigenous participation in the political arena, coupled with the global expansion of ecological consciousness, led to the characterisation of Indigenous people as *nativos ecológicos* ("ecological natives"). This label enshrined their role as protectors of the environment and the planet, a position further emphasized in the context of the ecological and climate crisis. This definition resulted from a dual interaction: Indigenous people's active participation in national and international events related to environmental protection, on one hand, and the increased interest of environmental organizations in Indigenous people, on the other. This mutual engagement contributed to formulating the Indigenous identity in terms of environmental stewards, a characterisation embraced by both Indigenous actors themselves and external entities, such as non-governmental organizations.

The notion of *nativo ecológico* is useful for two reasons. First, it underscores that identities result from a negotiation process between individuals and their social context, allowing for articulation to meet specific necessities. In the case of Indigenous identities, the ecological aspect has been reclaimed by Indigenous organizations to form new alliances and strengthen their actions. Secondly, Ulloa's argument is valuable for avoiding the essentialization of Indigenous identities. Acknowledging that *nativo ecológico* is a constructed identity makes it clear that this work does not assume ecological sensibility to be an inherent, defining, or essential component of Indigenous people. Simultaneously, it does not reject it when actively reclaimed by Indigenous actors themselves.

Overall, when dealing with Indigenous matters, it is crucial to start from the premise that it is not possible to refer to Indigenous people in a univocal way, as a homogeneous group. As attempts to devise an appropriate census methodology demonstrate, Indigenous identity and self-perception are not unequivocal and vary over time, just like anyone's identity. This premise is even more significant since Indigenous people are often reduced and essentialized as environmental stewards, as suggested by Ulloa (2001). Rejecting this essentialization does not negate the presence of ecological values in Indigenous people and cultures, but it contrasts with the idea that Indigenous people are inherently more environmentally sensitive.

2. The historical development of the Indigenous movement in Colombia: from CRIC to ONIC

After having sketched the presence of Indigenous people in Colombia and the impossibility of providing a univocal definition of an "Indigenous" identity, this section aims at tracing the development of the Indigenous movement in the country, with a focus on two of its main organizations, the CRIC and ONIC.

To comprehensively understand the emergence and development of the Indigenous movement in Colombia and its related organizations, it is essential to begin with a historical framework—specifically, the era of colonization. The conquest of Colombia unfolded in a heterogeneous manner between 1509 and 1539. The initial institutional mechanism for controlling and subjugating territories and peoples was the *recompensa* ("reward") system, involving the distribution of land and people to conquistadors. In 1538, this system was replaced by the *encomienda*, aiming to curb abuses against Indigenous people by the conquistadors and simultaneously advance their evangelization. However, the *encomienda* system also resulted in another form of slavery.

In 1561, the *resguardo* and the *cabildo* were introduced, becoming pivotal for Indigenous political struggles and demands. The *resguardo* represented the territorial unit collectively assigned to Indigenous people, while the *cabildo* or *consejo indígena* ("Indigenous council") was the corresponding legal and administrative entity for that territory. The introduction of *resguardo* aimed to prevent the dispersion of Indigenous workforce and promote their evangelization, while the *cabildo* served to preserve social cohesion within the territory. Among its members, the *gobernador* was entrusted with maintaining relations between the *resguardo* and the outside world. Additionally, the

gobernador was responsible for paying tribute to the Spanish Crown and organising the distribution of the workforce (Laurent, 2005).

It was not until the 19th century that attempts to obtain the recognition and nationalisation of Indigenous peoples started. From a first decree in 1810 onwards, some important changes were introduced: the term *indios* was replaced by *indígenas* ("Indigenous"), the payment of tribute was cancelled, and an attempt was made to shift the land ownership model from collective to private. However, this latter aspect encountered resistance from Indigenous communities as it represented a form of territorial fragmentation, weakening them against the power of large landowners. In this sense, a milestone in the history of Indigenous political recognition was Law 89 of 1890, which ensured a special treatment for Indigenous people, especially in terms of land ownership. According to such law, the *resguardo* became a form of collective ownership "unattachable", "inalienable" and "imprescriptible" (Laurent, 2005, p. 73, *my trans.*). From that point forward, the *resguardo* and the *cabildo*, initially forms of control and oppression, evolved into fundamental tools for Indigenous people's claims to land, its defence and their autonomy over it (Laurent, 2005).

The organised Indigenous mobilisation emerged in the 1960s precisely around three axes: land, identity, and autonomy. At that time, some representatives of the Indigenous communities in the Cauca department (in the South-West of the country) joined the Association of Indigenous Peoples in the Cauca region (*Asociación Nacional de Usuarios Campesinos,* ANUC), created in 1968 with the aim of accompanying agrarian reforms and ensuring land redistribution for peasants. The issue of land was fundamental also for the Indigenous people, especially in view of its relation to identity and cultural permanence (Archila, 2009; Laurent, 2022). However, these latter aspects determined a rupture between the peasants and the Indigenous members of ANUC: while the former fought for land in its purely material conception, the latter also added a cultural, identitarian and cosmological dimension (semi-structured interview with Didier Chirimuskai, in charge of Memory and Relationship of the AISO, 10/03/23). For this reason, the representatives of some of the Indigenous *cabildos* abandoned the ANUC and founded, in 1971, the Regional Indigenous Council of Cauca (CRIC). Their programme postulated a territorial and identity-based struggle, consisting in the recovery and extension of the territory of the *resguardos*, the strengthening of the traditional authorities, the defence of history, language, and customs, among others (Laurent, 2005). This struggle was characterised by a dual strategy: it opted for both direct, extra-institutional action and institutional advances (Archila, 2009).

Between the 1970s and 1980s, following the example of the CRIC, various Indigenous organizations arose throughout the country and, with them, the need to strengthen coordination at the national level. It was in this spirit that, in 1982, the first national congress of Colombia's regional Indigenous organizations was organised in Bosa. On that occasion, the National Indigenous Organization of Colombia (ONIC), was established. Its pillars are unity, land, culture, and autonomy (ONIC, n.d.-a), while its mission reads as follows:

> "Strengthen and support the self-government of Indigenous peoples and their exercise of authority so that they can assume with unity, autonomy and dignity, the control of their territories and the realisation and defence of their human and collective rights. Advocate for the social and institutional recognition of the ethnic and cultural identity of Indigenous peoples, accompanying them in their own local, regional, national and international organizational processes. Participate in the construction of an alternative social and economic model for our country, with other Indigenous and social movements, at national and international level" (ONIC, n.d.-b, *my trans.*).

Undoubtedly, the creation of ONIC represents a milestone in the history of the Colombian Indigenous movement and it was fundamental for the advancement and achievement of their territorial and political goals. However, it should be noted that this is not the only national Indigenous organization in Colombia, nor was it free from internal or external conflicts (Laurent, 2005). One of the most relevant outcomes of the Indigenous mobilisation was the stipulation of the 1991 Constitution. This is due to two reasons. On the one hand, for the first time, two Indigenous candidates were elected among the members of the constituent assembly - Lorenzo Muelas, for the Movement of Indigenous Authorities of Colombia (*Movimiento de Autoridades Indígenas de Colombia*, AICO) and Francisco Rojas Birry, for the ONIC (Laurent, 2005). On the other hand, from that moment, Colombia officially became a multiethnic and pluricultural country, recognizing Indigenous peoples' right to be equal and different, based on their access to general rights as citizens like any other, but also to specific rights based on ethnocultural criteria, and ensuring their participation in the country's political life (Laurent, 2012).

Once having described the historical evolution of the Indigenous movement in Colombia, as it is embodied by the creation of the Indigenous organizations CRIC and ONIC, I will now proceed by presenting the relevant points emerging from their political, social and including ontological alternative proposal. In doing so, I will also refer back to the ecological principles outlined in the

previous chapter, in order to emphasize the connection between the Indigenous movement, on one hand, and the ecological transition, on the other.

3. Indigenous transformative social, political, ontological alternative

Just as the movement for ecological and climate justice calls for a radical, transformative structural change, the mobilisation led by Indigenous people in Colombia can be read as a struggle in favour of a different social, political, and economic model. Indeed, ONIC's mission clearly states, among its goals, that of participating in the "construction of an alternative social and economic model" for the nation (ONIC, n.d.-b, *my trans.*). What are the elements of such a paradigm, and how do they align with the conceptualisation of the ecological transition as a profound, transformative cultural transformation? Which ecological principles can be identified in such alternative paradigm? This section seeks to respond to these enquiries.

3.1 From land reclamation to the "Liberation of Mother Earth": embracing a different human-nature relationship

As mentioned earlier, the Indigenous movement in Colombia initially emerged around the issue of land and mobilized for its reclamation. However, over time, this struggle acquired a broader significance: it shifted from the liberation of the territory to the "liberation of Mother Earth" (Laurent, 2022; Vargas Reyes & Ariza Santamaría, 2019, *my trans.*). In this context, Indigenous peoples, particularly those from the Cauca area, asserted not only a larger territorial space for themselves, but also a different relationship with the territory, nature, and what they term as Mother Earth. Such liberation involves opposing the mistreatment of the environment and its elements, resisting the logic of extractivism, and countering the accumulation of capital at the expense of nature. Consequently, one tangible manifestation of such claim is the reclamation of those territories dedicated to monocultures. In the Cauca region, for example, Indigenous communities, alongside the CRIC and the Association of the Indigenous Cabildos of the Northern Cauca (*Asociación de Cabildos Indígenas del Norte del Cauca*, ACIN), deliberately set fire to sugar cane crops, replacing them with other crops – such as corn, yucca, and beans – more useful for community sustenance (Vargas Reyes & Ariza Santamaría, 2019). Similarly, the Kokonuku people, inhabitants of the Cauca region, employed strategies like planting food and refusing to pay the *terraje*[1] in their mobilization for the "liberation

[1] The *terraje* was a system adopted in the XVIII century, based on the fact that landowners would give part of their land to be worked by farmers or Indigenous people, which, in turn, would have to pay a rent (Hermes, 1982).

of Mother Earth". This liberation did not merely aim to protect their economic interests but, more importantly, sought to safeguard their relationship with the land.

> In the last fifty years we have advanced in what we call the "liberation of the mother earth". Planting food and not paying rental were some of our first objectives. Little by little, we came to realise that, by retrieving our territory, we were also retrieving our traditions and coming closer to a communal *Buen Vivir*. (Melenge Meneses, 2023, *my trans.*)

> They reflect a joy, that of sharing their experiences of struggle that they did with their soul, life and hearts, in order to defend that piece of land, not for their commercial interest, but for the protection of their relation with the territory. (Mestizo, 2018, *my trans.*).

The significance of the territorial struggle undertaken by Indigenous people is also articulated in CRIC's mandate, with its ninth point stating: "Retrieve, defend, protect the life spaces in harmony and balance with Mother Earth" (CRIC, n.d, *my trans.*). Evidently, the reclamation of land by Indigenous people extends beyond a mere material acquisition, but it also implies safeguarding a specific relationship with it. As Gunzareiman Villafaña, a young Arhuaco economist working in the Indigenous *cabildo* of the Magdalena department, expresses:

> It is in this search for a good co-living, for going back to harmony, that Indigenous people start taking decisions of resistance and struggle (Gunzareiman Villafaña, semi-structured interview, 16/03/23).

3.1. Kinship and care

To understand more thoroughly how the fight for territorial reclamation becomes a struggle for the "liberation for Mother Earth", it is necessary to delve deeper into the concept of Indigenous worldview. First of all, it is important to stress that speaking about *one* worldview is inaccurate, as each Indigenous group possesses its own peculiar cosmology, which can be defined as the discourse about the universe: its origins, the beings that compose it and their relation among each other (that is, ontology), the way it works and where it is heading to (Kyriakakis, 2014). Although Indigenous cosmologies are as numerous as Indigenous groups, thereby making it difficult to summarise them in a single, comprehensive compound, it is also true that there are some common and recurring aspects.

One of these is to consider the Earth as a nurturing Mother, thus defining the relation with her in terms of kinship and care (ONIC, 2017). According to Aida Quilcue, Human Rights advisor for the ONIC:

> The earth is our mother and in Nasa people's cosmovision, we talk about about three spaces: the world on top, the superficial-physical space and the world of below (*eka kiwe, na kiwe , tasxi kiwe*). For sure, every people interpret it in their way to see the world, but also in their own language, this is the foundation of life, and we cannot observe the earth as capitalism does, where everything has to be destroyed. (Conejo, 2017, *my trans.*)

Clearly, such a view is openly opposed to the dominant modern, Western conception, which instead considers natural goods as mere resources to be exploited. According to the authors of the journal *Unidad Álvaro Ulcué*, such vision "reduces territorial realities to economistic variables, where there is no room for a rights-based approach, neither for peoples nor for nature" (Vidal Trochez, 2017, pp. 10-11*, my trans.*). If, on the one hand, the materialistic and economistic vision is at the basis of the overexploitation of natural resources and the overcoming of the planet's biophysical limits (with the eco-climatic crisis as one of the most obvious consequences), a worldview based on a familiar bond with the territory and nature implies, on the other hand, a relationship of care and protection (CRIC, 2016; ONIC, 2017). Ultimately, Indigenous mobilisations, which predominantly took the form of territorial reappropriation, also represent a movement in defence of an alternative conception of land, nature, the whole planet, and people's relation with them. Such view is based on, but not limited to, an attitude of care and protection. In this sense, a connection can be highlighted between the Indigenous movement, its territorial claims and the cultural changes which underlie an ecological transition, as it has been described so far, especially with regards to the ecological principle of relationality and interdependence. These would imply a shift precisely towards an attitude of care towards the living environment, based on the recognition of human dependence on it.

3.1.2 Ecological balance

Another aspect worth noting is that a search for human-environmental balance is key both in the context of the ecological transition and in the vision embodied by Indigenous mobilisations. For instance, according to Arhuacos' cosmovision – which will be dealt with more in detail in the following chapter – every Indigenous individual is born with the duty of protecting and taking care of the territory, not only because it is considered the origin of life, but also because each of its element has a function and is essential for maintaining a general equilibrium:

> Before, everything was dark, everything was spirit. And everything materialised to take on an important function in the universe. Even the stones were spirit, even the trees, these things that you don't see, that don't speak... but that are there for some reason. You go to the river, and it's normal for you to bathe in the river in the Sierra, and you find stones. And your parents tell you: "You can't move that stone from the place where it is, because it is there, no matter how small you see it, it is fulfilling a function there". (Gunzareiman Villafaña, semi-structured interview, 16/03/23).

Similarly, the *plan de vida* elaborated by the Misak people revolves around the search for a harmonious integration among human beings, the environment, and its elements:

> The territory *nupirau*, our "big home", is the space where our life takes place, searching for harmony and balance with nature, with the spirits of our ancestors, with the spirits of the water, the wind, the rain, the plants, the lagoons, the rivers, the paramos, the floods that bring with them the *caciques* [indigenous leaders] that are born once every one hundred years. (Tunubalá & Muelas Trochez, 2009, p. 23, *my trans.*)

U'was' *plan de vida* goes in the same direction, postulating as central the search for a human-nature balance (2006). In their view, such balance is fundamental for the survival of the same Indigenous people. Other Indigenous cosmologies point to the same idea, whereby the communal and individual existence and well-being appears to be inextricably linked to territorial integrity (Acazunip, 2008; Tunubalá & Muelas Trochez, 2009). Daris María Cristancho, who belongs to the U'wa people, expresses such relation of co-dependence in the following terms: "When our territory is destroyed, to us it is like slowly dying" (ONIC, 2023, *my trans.*). This is, again, another common point between Indigenous vision and the cultural changes implied in an ecological transition. Moving from an atomizing and individualising stance to embrace ecological principles of interdependence and relationality, with respect to the natural environment and non-human entities, is indeed one of the shifts that should form the basis of the ecological transition, in social and cultural terms.

3.1.3 Ecocentrism and intergenerational responsibility

Following Indigenous' proposal, nature's value does not appear to be only subordinate to human use; it is rather intrinsic. Human beings, on the contrary, are perceived as transitory:

> From a young age we are thought to have a different relationship with nature. When you are raised, they make you understand that nature is not just a resource bank, but that it is also something sacred and that we are in the world only for a moment, while the Earth is always there. (Gunzareiman Villafaña, semi-structured interview, 16/03/23).

The transitory character of human beings is an element present in several Indigenous cosmologies and it strengthens the mandate to take care of the territory for future generations, in a broader and holistic sense, encompassing human and non-human entities alike. In this sense, as Gunzareiman recalls, "we are not just talking about people, but also animals and all of what makes up the Earth" (semi-structured interview, 16/03/23). Foregrounding this need of protection, then, there is an ecocentric view, which places the human agent as one temporary actor moving into a bigger and more complex whole. Human impermanence is also expressed through language. For instance, Misak's idiom lacks the verb "to be", therefore the idea of a permanent existence is absent (Tunubalá & Muelas Trochez, 2009). Edelmiro Imbachi belongs to the Inga people and has participated in the Indigenous movement since he was seventeen. In the past twenty-six years, he has been working with the ONIC and dealt with human rights, territory, environment and Indigenous economies. With respect to the latter, he explained to me that the necessity for territorial preservation is also central in Indigenous economic approach and its underlying idea of "development":

> The aim is always to ensure that future generations will continue to have a healthy and clean environment, water, food, and this is the reason for preserving our own forms of production, our own products, seeds, handicrafts… (Edelmiro Imbachi, semi-structured interview, 13/03/23).

Intergenerational responsibility, paired with an ecocentric attitude, are thus yet two additional points bridging the Indigenous movement and the kind of change inherent to an ecological transition. More precisely, this refers to the need to move from an anthropocentric to an ecocentric stance, whereby biodiversity is recognised as imbued with intrinsic value, rejecting human predominance over other life forms. Although they do so under different worldviews, both the Indigenous movement and the ecological transition imply the conservation of the environment and ecosystemic balance, not only for present but also for future generations; they both oppose extractivist dynamics that overexploit natural resources and jeopardise the material conditions of survival for the sake of short-term economic gain. In short, they both imply a profound systemic change with respect to the dominant paradigm, encompassing cultural and political aspects.

3.1.4 Land protection and biodiversity conservation practices

An alternative conceptualisation of nature and its "resources" is important and becomes even more evident when considering the practices that it entails. Indigenous territories and peoples are indeed recognised for their contribution to natural conservation. Although it is not possible to essentialise them as environmental stewards (as previously expressed), it is also interesting to highlight that, both in Colombia and worldwide, Indigenous lands coincide with the best hotspots of biodiversity conservation (Pastás Cuastumal, 2014; WWF, 2021). Moreover, on many occasions, the same Indigenous actors claim this role of protectors of nature (Laurent 2022; Urrutia Hoyos & Muelas Calambás, 2023; Viviana Suarez, semi-structured interview, 10/03/23; Gunzareiman Villafaña, semi-structured interview, 16/03/23). As an example, in the occasion of the Earth Day, the ONIC published a communication stating:

> In the country, Indigenous rural territorial area has a vegetation cover of 89.3%, which is destined for conservation. The percentage of the national Indigenous territory with agricultural production is 8.2% (National Agricultural Census 2015). This situation occurs because of the cultural relationship that we Indigenous peoples have with our territories and our natural resources, which makes us predominantly conservationist cultures. (ONIC, 2017)

Similarly, the role of Indigenous people's in preserving environmental and territorial integrity is stressed by Gunzareiman Villafaña:

> We have been talking about conservation for many, many years, and it is not something that is simply reduced to something spiritual, that mother nature is something mystical and so on, because that is how they want to sell us and then say that this is why we are not supporting development. But they don't realise that nature has everything we need to live and that the relationship and respect for nature is fundamental for us and for the whole world. [...] And, when you go to study Colombia and the great conservation work it has done, I can assure you that at least 70% of the conservation that there is in the forests is thanks to the Indigenous peoples. There is no one who has played such a great and significant role in the defence and conservation as the Indigenous peoples." (Gunzareiman Villafaña, semi-structured interview, 16/03/23).

Such biodiversity conservation depends on some territorial management practices enacted by Indigenous people, such as land resting processes, the delimitation of protection and production areas, the respect of natural cycles, the rejection of chemical fertilisers and the recovery and exchange of

traditional seeds (Acazunip, 2008; Omar Zapata Acevedo, semi-structured interview, 12/05/23; Ozcimi, 2008). In this sense, the type of economy proposed by the U'wa people is that of an "alternative sustainable economic development" (Gobernación de Casanare, 2006, p. 15, *my trans.*). Ultimately, Indigenous people contribution encompasses both a reconceptualisation of nature and of the relationship between people and land, which is embodied in practices of biodiversity conservation.

As it has been described so far, with its territorial struggles, the Indigenous movement of Colombia fights not only for land reclamation, but also for the defence of an alternative human-nature relationship. This is rooted in an ecocentric view, where humans are seen in their co-dependence with land and the other elements of the ecosystem; moreover, humans are deemed as transitory, and this underpins a sense of intergenerational responsibility encompassing non-human entities too. Furthermore, human bond with the territory, nature, and the Earth is conceived in terms of kindship and care and is embodied in practices of biodiversity conservation. Altogether, such alternative vision of human-nature relationship aligns with the ecological principles that would underly an ecological transition, as suggested in this work, namely those of relationality, interdependence, ecological equilibrium and ecocentrism.

3.2 Indigenous alternative paradigm: a broader picture

The contribution of the Indigenous movement goes beyond the struggle for the recovery and conservation of their own local territories and biodiversity. As it was anticipated, Indigenous mobilisations have had a broader scope. Beginning by reclaiming their own cosmovision in terms of their own relationship with nature and their conservation practices, they have come to stand as an example of an alternative cultural, political and economic model, in opposition to the dominant Western paradigm, which is considered as the root cause of several current problems, including the eco-climatic crisis (Laurent, 2022; ONIC, n.d.-b; Tunubalá & Muelas Trochez, 2009; Vargas Reyes & Ariza Santamaría, 2019). Misak's *plan de vida* concludes as follows:

> "[…] in the hope that our proposal will be recognised as a contribution and an example of coexistence and an alternative to the many problems that Western society has not been able to solve, such as poverty, the human-nature contradiction, violence, the exploitation of women and children, racial discrimination, injustice in all its dimensions." (Tunubalá & Muelas Trochez, 2009, p. 19, *my trans.*)

3.2.1 Opposing extractivism and consumerism

In general, in their declarations, Indigenous peoples reject the Western neoliberal capitalist model, in several respects. First, they oppose the extractivist and exploitative dynamics that conceive the territory as a bank of resources to be infinitely exploited. Such ideology has historically materialised through oil, mining and agroindustrial companies and their monocultures, against which Indigenous peoples have fought and continue to fight, both materially and ideologically (CRIC, 2016; ONIC, 2023; Tunubalá & Muelas Trochez, 2009; Urrutia Hoyos & Muelas Calambás, 2023; Vargas Reyes & Ariza Santamaría, 2019). As the ONIC states, "one of the themes that most profoundly impacts dignity and sovereignty in ancestral territories is the extractive mining and energetic strategy of the country." (ONIC, 2017, *my trans.*). Such exploitative logic is considered incompatible with Indigenous' existence and well-being, as expressed in Misak people's view:

> The poverty or the poverties that the West invented at the time of the expropriation of Indigenous peoples' goods and cultures is not our poverty; nor its authority and laws are our law. For this reason, its ideology and space of natural and human exploitation is not valid for our life and our growth as people. (Tunubalá & Muelas Trochez, 2009, p. 19, *my trans.*)

Indigenous people contrast such logic of extraction and exploitation, which eventually leads to environmental destruction. In opposition to this, they postulate a different way of managing the territory, which is rather centred on resting practices for the land and on the preservation of agro-ecological biodiversity.

> The extractivist economy, such as that of large-scale monocultures and mining... is an economy that extracts, damages the environment and everything, but does not leave wealth, it does not leave anything in the region, it only extracts. The difference with our economy is that it is sustainable, it is permanent, it does not end, it rotates. There is a seed bank that is alive. […] There is a rotation, there is an exchange of seeds between peoples, between the same people, to conserve seeds and enrich the genetics of the seeds themselves. And it is produced in this way and, as I was saying, it is different from the other way, which only extracts but is not seeing in the territory. And knowing that this ends. That is why there is always a tendency among Indigenous peoples to conserve, to give the soil a rest and in communities they always, always, have to give, at least, minimum, they let the land, the soil, rest for two years before sowing again. And there are others that have ten, fifteen, twenty years. Then they sow again. That's why the soil doesn't deteriorate. (Edelmiro Embachi, semi-structured interview, 13/03/23)

The striking contrast between Western extractivist and exploitative model of production, as it is perpetrated by the mining and agricultural industry, and Indigenous approach is clearly delineated by Omar Zapata Acevedo, who started to collaborate with the ONIC after a traditional, Western academic education:

> And the first thing one sees is precisely this, that you are promoting the abysmal difference between an education designed for models that are supposedly efficient, for models that they call... that they call modern… in a context in which there is a very different model. So that is an immediate clash. And that shock meant that I would have had to relearn, because our training is a training aimed at continuing to promote a green revolution. All the faculties of agronomy in the country and many of the faculties of environment, forestry and environmental studies are conceived from the economicist idea, the idea of income, the idea of value obtained from exploitation, exploitation of natural resources. Whereas in these peoples, in this case the Indigenous peoples, the idea, the conception is very different. The concept focuses on the management of the territory as a whole, with Indigenous peoples we are talking about a traditional system of production. And it is a traditional production system that depends on the relationship between culture and territory and that has subsystems through which the process of sustainable use of natural resources is consolidated. So they constitute the fundamental basis for several things that are very important for Indigenous peoples. One: the conservation of ecosystems and biodiversity. (Omar Zapata Acevedo, semi-structured interview, 12/05/23)

According to Omar, the Indigenous model of production is different with comparison to the modern one, since it is grounded in the respect of biophysical limits, natural cycles and a holistic approach in the use of natural elements, thus marking a stark distinction with a model based on overexploitation for capitalistic production:

> When it comes to nature, there is no overexploitation, there is no looting… […] One of the characteristics of the Indigenous model is the use, management and utilisation of all of the components that there are in the territory, according to the natural cycle. […] This is key in the differentiation of the vision of development. One is about use according to natural cycles, in contrast with the idea of intensive use for the accumulation of capitals. (Omar Zapata Acevedo, semi-structured interview, 12/05/23)

Apart from proposing an alternative model of production, Indigenous people also contrast territorial exploitation. To protect their territories from the impacts of extractivist projects, they resort, among

other strategies, to their rights to be consulted (*consulta previa*), although this is not always respected, as it will be further illustrated in the last chapter.

> And so, today Indigenous peoples are cornered in the face of the extractivist policies that have been developed historically, and today they are already cornered, because in the rest of the country, where there is no presence of Indigenous peoples is where these projects have been developed, because in order to access the natural resources that are within the *resguardos,* within Indigenous communities, they have to have prior, free and informed consultation. (Viviana Suarez, semi-structured interview, 10/03/23)

> And we are fighting because these sites are important to maintain a balance within the ecosystem and we know how damaging it can be if it passes into the hands of mining projects. (Gunzareiman Villafaña, semi-structured interview, 16/03/23)

Opposing the extractive modern system, where nature and human are exploited for an economic gain, is one of the paradigmatic shifts common both to the Indigenous model and to the changes inherent to an ecological transition. Additionally, another common point is represented by Indigenous' rejection of unbridled consumerism and unlimited economic growth. This is expressed, for instance, in Misak's *plan de vida:*

> 516 years that separate us from the European invasion. Our own culture, identity and knowledge have allowed us to guide us through all the difficult times; and today they help us to move away from the model of consumerism and adapt to intercultural dialogue, which does not obey the model of economic growth based on transgenic agriculture and its ideology of consumption that has been offered to us and which has been damaging our community. Rather, it is an environmentalist agriculture, healthy, food sovereignty, cultural preservation, protection of traditional seeds, technological improvements in production and the right as farmers to save and preserve seeds and their knowledge as the essence of collective life. The right of consumers to know where, how and with what food is produced. (Tunubalá & Muelas Trochez, 2009, p. 18, *my trans.*).

3.2.2 *Buen Vivir* and communal solidarity as alternatives to "development"

By rejecting economic-driven exploitation and materialistic consumerism, Indigenous people become representatives of a paradigmatic alternative concerning the very meaning of "development". For

instance, for the Arhuaco people, “development” coincides with “protection, conservation and care for nature” (CTC & Ministerio de la Cultura, n.d., p. 83, *my trans.*). On a similar note, according to the U’wa people, “development” implies “living in freedom and harmony with nature, Mother Earth and the blue planet” (ONIC, 2023, *my trans.*). They also add that “well-being is broader and more precise than growth measured as per capita income, because it comprises all human necessities and satisfiers (material, spiritual, social and cultural), possibilies and aspirations” (Gobernación de Casanare, 2006, p. 79). Furthermore, in Misaks’ view:

> The word "development" has no place among our traditional concepts, it is Western: it simply does not exist. [...] "Development" for us is to flow and remain in the territory, to grow and transit in it, to come and go from the inside out and from the outside in, like the snail ... in harmony with nature and the cosmos. Therefore, we cannot approach the subject of economic development from the idea of linear progress, nor of indefinite growth, nor understood only as material growth, but from the character of a people that insists on building its own history in its permanence and survival.” (Tunubalá & Muelas Trochez, 2009, p. 17, *my trans.*).

Such notion of development stands in striking contrast with that provided by the Western, modern, capitalist system and its destructive dynamics, which are opposed by Indigenous resistance, as Omar recalls:

> [A blind development is] all that destroys biocultural rights, all that destroys the rights of nature, all that destroys collective rights, all that seeks individual and not collective benefits, that destroys the environment, the rivers, the water, and pollutes. And then, of course, the process of Indigenous resistance to this led them to other conceptions. (Omar Zapata Acevedo, semi-structured interview, 12/05/23)

Overcoming the idea of development as strictly related to natural exploitation, individual economic benefit and indefinite material growth is one of the fundamental points highlighted in the context of an ecological transition that reintegrates ecological principles. According to such paradigmatic change, the very idea of development is questioned, just as Indigenous people do in their political, cultural, and social claims. Going more in depth, it can be said that at the basis of such alternative notion of development there are two fundamental aspects: the prevalence of the community over the individual and the notion of *Buen Vivir*.

With regards to the first, the importance of the collective dimension can be found with respect to land property. In the case of the Nasa people, for instance, their understanding of land ownership in terms of communal right appears incompatible with the state notion of private property (Vargas Reyes & Ariza Santamaría, 2019). The same can be said for the U'wa people, whose lands "belong to everyone, they are collective or communal" (Gobernación de Casanare, 2006, p. 90, *my trans.*).

The prevalence of the communal interests over the individual ones is also evident in the economic system and the way work is organised according to principles of solidarity. In the case of the Misaks:

> Our model of economic, social and cultural autonomy is a process of organic and structural independence from the market society. A process of building an economy that is not based on the exploitation of capitalist factors of production, but on solidarity, exchange, production in common spaces, the *minga* as communal work and as a force for survival. (Tunubalá & Muelas Trochez, 2009, p. 18 *my trans.*)

Misaks' mode of living is indeed guided by two fundamental principles of distribution and equality: the *Mayailei* law, "there is enough for everyone", which expresses the imperative of sharing what they have among all members, and the *Lata Lata*, "to receive and share always equally" (Tunubalá & Muelas Trochez, 2009, pp. 23-24, *my trans.*). Moreover, when hierarchies exist, they are oriented by a principle of brotherhood, as in the case of several Indigenous groups present in the Vaupés area (Acazunip, 2008). The institutionalisation of collective and solidarity work is further represented by the *minga*, described by Edelmiro as "all together, as one single man, for a common dream, a common goal, this is the *minga*" (semi-structured interview, 13/03/23). The *minga* is a moment when the entire community comes together with a spirit of solidarity to engage in various types of collective work. This includes tasks ranging from land management and food production to territorial fixes and improvements, as well as preparing the fields for sowing. It even encompasses moments of collective discussion and reflection, the so-called *minga del pensamiento* ("*minga* of the thought") (Omar Zapata Acevedo, semi-structured interview, 12/05/23). Solidarity and collective endeavour emerge then as distinctive features of the *minga* and the broader organization of Indigenous life. Again, this stands at odds with Western individualistic attitude, as stressed by Omar:

> Individualism is not professed here. It starts to penetrate afterwards, with the school, with the state programmes, which then talk about benefits for those who own something. And at that time we are talking about societies in which group solidarity, community solidarity, solidarity between communities is present. And this is another of the reasons why they are talking about the need to

> go back to the origins, to recover these old forms. Because solidarity implies a very important benefit, that is also permanence, sustainability. This is very important to achieve bio-cultural sustainability. Solidarity is very important, it is necessary. People alone disappear. Cultures disappear, when they are alone. That is why they always talk about community processes, collective processes, and that is why their territorial claim is based on the conception of territory as collective areas, not individual ones." (Omar Zapata, semi-structured interview, 12/05/23)

Moving now from the collective dimension to the concept of *Buen Vivir*, which was already presented in the previous chapter, it can be said that this is characterised as a harmonious co-living not only among human beings, but also with non-human entities and the elements that compose the ecosystem. "*Buen Vivir* means to be able to live in a sustainable way and in relation of equilibrium with nature", explained Viviana Suarez, ONIC's advisor for the *planes de vida*. She also added that this represents a central goal in the political proposal presented by her organization (Viviana Suarez, semi-structured interview, 10/03/23). The connection between *Buen Vivir* and development is well expressed in the editorial article of the first edition of the Indigenous journal *Unidad Álvaro Ulcué*: "living well [*vivir bien*] does not only show that other ways of life are possible. It is a plural, intercultural concept under construction. We can speak of an alternative to development for the whole society, based on principles of sustainability." (Editorial team, 2017, p. 4). Finally, a synthesis of this idea of development as *Buen Vivir* is enshrined in the words of Omar:

> Instead of individual benefit, collective benefit. Instead of destruction of nature, conservation of nature. Instead of abandonment of nephews, old people and children, real and effective support to all sectors of society. Instead of accumulation of money, accumulation of well-being. (Omar Zapata Acevedo, semi-structured interview, 12/05/23)

In summary, the Indigenous alternative paradigm revolves around the primacy of the community over the individual and embraces a distinct conception of development embodied in the notion of *Buen Vivir*. This concept is defined as a state of balance and respect among human beings and their ecological surroundings. Once again, these aspects resonate with ecological principles such as ecocentrism, ecological balance, and cooperation, which play a crucial role in the paradigmatic shift underlying an ecological transition.

3.3 Indigenous mobilisation as *ontological* struggles

The Indigenous movement in Colombia is often characterised as a social movement that initially mobilised around the issue of land retrieval. However, its scope soon expanded to encompass not only territorial reclamation, but also a different relationship with land, nature, and what they call "Mother Earth". This relationship is articulated in terms of kinship, care, and intergenerational responsibility; it presents an ecocentric perspective and is rooted in the pursuit of ecological balance. Moreover, it has been emphasised that this cosmovision is inseparable from practices of conservation and protection of the territory. Indigenous mobilizations and political claims extend beyond the question of land, representing a paradigmatic shift that challenges various aspects of the Western modern apparatus. This includes opposing exploitative, consumeristic, and individualistic attitudes. In contrast, Indigenous communities propose an alternative model grounded in a distinctive notion of "development," characterized by values such as communal solidarity and the pursuit of socio-ecological balance, encompassing both human and non-human entities—referred to as *Buen Vivir*.

All of this considered, Indigenous mobilisation, seen as the embodiment of an alternative paradigm, is surely relevant to think with, when reflecting on the scope of the ecological transition, especially on a cultural, social, and political level. However, Indigenous struggles go beyond the social, political, and cultural realm: they are rather *ontological* struggles. To understand this point, it is important to draw on the definition of the ontological turn.

Anthropologists such as Viveiros De Castro (1998) and Escobar (2015) proposed a change in the way cultural difference is dealt with in anthropology. From considering the world as composed by *one* nature and *multiple* cultures, that is, multiple perspectives on the same, unique, objective reality, the ontological turn reverses this axiom by considering the world as composed by several natures, since ones' perception of reality influences practices and, therefore, constructs the reality itself (Cadena, 2010; Kohn, 2015; Lazar, 2021; Soto Arias, 2020). It is in the wake of such anthropological stance that Escobar defines the differences between "dualistic" and "relational" ontologies (Escobar, 2015, p. 29). As already explained in the previous chapter, a dualist ontology, characteristic of the Western, modern, capitalist apparatus, conceives the world as fragmented; individuals are perceived as severed from their ecological and social surroundings and inhabit a reality that is strictly organised into sets of hierarchical dualisms, such as man and woman, human and nature, nature and culture, human and non-human beings. A relational ontology, on the contrary, negates such stark divisions, but rather conceives subjects as the result of a co-constitution process, involving their ecological surroundings

and other living entities (Escobar, 2015). Following this distinction, Indigenous struggles and political proposal can be read under a different light. By embodying a relational ontology, which is evident in the way they relate to land, nature, human and non-human beings, their territorial struggles go well beyond the protection of land itself, or of their cultural values. They do not only defend their cosmology, but the reality they enact through it, that is, the existence of other worlds, which persist in resistance and opposition to the dominant one. Their battles are then much more than social, political, and cultural: they are ontological struggles in defence of alternative existing worlds, which compose the pluriverse we are immersed in (Escobar, 2014; Vargas Reyes & Ariza Santamaría, 2019).

4. Conclusion

The ecological and climate crisis call for a paradigmatic change, which encompasses radical social, political, and cultural transformation and which aims at reintegrating ecological principles and socio-ecological justice. When reflecting on the scope of such transition, Indigenous mobilisations represent a valid point of reference, not only to respond to the need of adopting a decolonial gaze, but also because the social, cultural, political, and even ontological alternative they embody presents numerous common points with the paradigmatic change implied by an ecological transition, in the face of the eco-climatic collapse.

Consequently, this chapter has introduced the Indigenous movement in Colombia, its historical development, and the divergent model it epitomises. After outlining the presence of Indigenous people in the country and the impossibility of reducing the Indigenous identity to one, common, never-changing category, it then moved on to describing the emergence and expansion of the Indigenous movement, focusing specifically on the establishment of two of the main Indigenous organizations in the country: the CRIC in the 1970s, and the ONIC in the 1980s. The third section of the chapter was then dedicated to illustrating the features of the "alternative social and economic model" (ONIC, n.d.-b, *my trans*) embodied by Indigenous mobilisation in Colombia.

By resorting to an array of Indigenous sources, the aim was that of providing a comprehensive picture, whose limitation certainly is that of overlooking the nuances and peculiarities existing within the Indigenous movement and the peoples of which it is comprised; at the same time, such simplification is justified by the need to articulate a comparison with the paradigmatic change underlying an ecological transition, while it is legitimised by the fact that all the statements presented stem directly from Indigenous actors. This is also the reason why the chapter abounds in direct references.

The alternative model represented by the Indigenous mobilisation has then been delineated on three lines. First, its territorial reclamation was reconfigured as a struggle not only for a material gain, but also as a fight in defence of their own cosmovision with respect to their connection with land, nature, and Mother Earth, broadly speaking. This relation is based on an ecocentric worldview, implying a bond of kindship and care, a search for an ecological balance, and a sense of intergenerational responsibility, and it materialises in practices of land and biodiversity conservation and opposition to exploitative projects. In being so, this model already presents substantial parallelism with the cultural shift implied by a radical, transformative ecological transition, where ecological principles are reintegrated.

The second step was that of expanding the view as to encompass not only the alternative human-nature relation, embodied by the Indigenous movement, but also other political, social, and economic claims, through which the Indigenous model is openly opposed to the Western, modern, extractivist and capitalist one. This concerns aspects such as resource extraction for capital accumulation, or unbridled material consumerism, which are instead contradicted by a production model respectful of natural cycles and limits. Moreover, the alternative paradigm proposed by Indigenous mobilisation rejects the concept of development as it is intended in Western worldview, and replaces it with the notion of *Buen Vivir*, which encapsulates a state of collective harmony and equilibrium among human and non-human beings and with their ecological surroundings. By opposing extractivism, consumerism and by striving for collective well-being, the model postulated by the Indigenous movement is once more connected with the struggle for a transformative ecological transition.

Finally, the Indigenous movement's scope has been described as even greater. Apart from re-defining human-nature relationship in a way that is much more coherent with an ecological view, and apart from contrasting some of the most prominent downsides of the Western model, the Indigenous movement in Colombia represents the struggle for the defence of a different ontology, that is, a different world (Escobar, 2014). In defining its fight as ontological, its radicality is enhanced, while the conviction of the ineluctability of the modern world, with its social, cultural, and political apparatus, is contrasted. Referring back to the present need for a transformative ecological transition, I suggest that considering Indigenous experiences as ontological alternatives is fundamental for sustaining a sense of hope for change.

Overall, this chapter served both as a contextual introduction to the Indigenous movement in Colombia and a more articulated explanation of its contribution when discussing about the ecological

transition, more specifically in its connotation of a transformative change, which transcends the mere technological sphere, as to include a profound and radical cultural, political, social change. Continuing on the same line, in the following chapter I will delve deeper into the connection between the cultural context, worldview, social norms and the human-environmental practices they entail.

Chapter 3: On the nexus between cosmovision, cultural framework and ecological practices: the case of the Arhuacos of the Sierra Nevada de Santa Marta, Colombia

We had woken up early in the morning, and after some rapid *huevos pericos* for breakfast, we had jumped on a bright yellow taxi, which had led us to the central market. Among the shouting crowd - an entanglement of colours, smells, and vivacious sellers - we had found our way to the bus. One hour ride later, we had gotten off at a bus station, on the long road that runs parallel to the Colombian North coast, cutting across *bananos* plantations and the eccentric vegetation of the Tayrona National Park. There, a group of riders, with their dark motorbikes, had taken us on another forty-five minutes journey on the road that departs from the main one to climb up the mountain slope (it had been necessary to go by motorbikes, since it is difficult for cars to access it). And in that moment, we were sitting on the shore of the Don Diego river, waiting for an improvised wooden boat to take us on the other side. From there, another three hours journey by mule would bring us to our destination, Bunkwimake, an Arhuaco village on the mountain complex of the Sierra Nevada de Santa Marta.

While I was there, sitting on a rock, listening to the calm sound of the river flowing, surrounded by birds, butterflies and a variety of trees that I could not number, I realised we were not alone. Just in front of us, on the other side of the river, a group of young boys had arrived. Barefoot, with their white tunic and long, dark hair, they were sitting on the rocks, among the trees, silently. When this image filled my eyes, I could not help but thinking about the absurdity of considering humans and nature as two separate entities, as my Western, Cartesian gaze had thought me to do. Nor made it sense, in that moment, that nature existed on its own, in its wilderness, and that in order to preserve it, we had to severe humanity from it and enclose it, as the conservation movement initiated by John Miur had suggested. Neither I, an Italian citizen, raised and born between the city and the countryside, nor these young Arhuacos, who had probably spent most of their life in the Sierra Nevada de Santa Marta, could define our existence as isolated from the natural environment surrounding us. Ecology teaches us that. And yet, why did it strike me to see them there, perfectly embedded in this natural setting? Why was the human-environmental nexus so clear to my eyes, there, and instead, so inconsistent in my daily, urban life? Once again, it was a sign of how much our cultural background influences our perception of reality and, consequently, shapes our actions. And this is the reason why I had come here. I wanted to understand how the cosmology and cultural values of this community informed their ecological practices, i.e. their practical relation with the natural environment.

The methodology I opted for to answer this enquiry is that of a qualitative research based on an ethnographic method. Data was thus collected through participant observation and informal, spontaneous conversations. I will expand more on these two aspects. Participant observation was carried out during a three-weeks period, in which I lived with one of the families of the community of Bunkwimake, taking part in their daily life activities, which mainly included working in and for their own household. In order to avoid the practice of academic extractivism (Alatas, 2022), whereby researchers merely observe and extract data without fostering reciprocal engagement with the respective community, I have articulated a commitment to participate more actively in the community's affairs. This involves contributing something deemed valuable by the community, thereby promoting a mutually beneficial interaction. I was proposed to contribute by helping to working in the communal garden, therefore this is another activity I got engaged into during the time I spent there. Apart from living with the family that hosted me during my stay, during several occasions I could join broader gatherings, where members of the wider community, together with the local authorities, would be present. This provided me with the opportunity to be immersed in more extensive social dynamics, which transcended those of the single family with whom I resided. Although my initial aim was to attend to the community's practices with relation to land and environmental management, this resulted only partially possible. On one hand, my first-hand experience was limited to the practices enacted by the family that hosted me; I lacked the opportunity to acquire firsthand insights within the context of additional families. On the other hand, this limit was overcome by resorting to people's account of their management practices and of the rationale that informs them. While participant observation, which is inherent to ethnographic field work, was one of the primary methods I adopted in this research, informal and spontaneous conversations were the second relevant aspect of the qualitative method I adopted in order to collect data. I decided to employ this approach, instead of that of structured, formal interviews, for two reasons. First, spontaneous exchanges allowed for more authentic and unbiased answers. Secondly, I followed the advice given by one of the members of the family that was hosting me, according to which it would have been difficult to connect with the people of the community and understand what they truly think and believe through formal interviews. The latter would have created an atmosphere of formality and seriousness, potentially impeding individuals from genuinely expressing themselves. Therefore, I preferred to seize the most suitable moments, both within the dynamics of family and community life, to engage in informal yet more intimate and authentic conversations with people. This is the second most relevant method I adopted in my research. Moreover, it should be noted that all conversations were held in Spanish, which figures as second language both for me and for the Arhuacos. Indeed,

Ikʉ is their mother tongue, and it is what they spoke during collective gatherings. On many occasions, I would then only participate in the activities, without being actively involved in the verbal communication. However, this did not exclude other valuable forms of integration and non-verbal interaction among us. The notes taken from direct verbal exchanges with community members were then translated from Spanish to English.

The data collected during the ethnographic field work through participant observation and informal conversations were then complemented with bibliographic research aimed at framing those insights within a more general overview, especially for what concerns Arhuaco culture and cosmovision. For this reason, preference was given to bibliographic material elaborated directly by Indigenous organizations - in this case, the Tairona Indigenous Confederation (*Confederación Indígena Tairona*), which represents the Arhuaco people. Furthermore, additional bibliographic resources were employed to establish a theoretical framework and foster a more comprehensive understanding of the geo-historical context of the Sierra Nevada. This was particularly focused on elucidating the interconnection between Indigenous practices and conservation efforts.

The chapter is divided into five parts. In the first one, I describe the theoretical framework underlying my analysis; I subsequently provide the socio-geographic and historical context of my research; in the third section I present some Arhuaco cultural and cosmological elements, which inform their ecological practices; in the fourth section, the nexus between Indigenous ecological knowledge/practices and natural conservation is further elucidate. Finally, the chapter ends by highlighting the relevance of this case study within the wider debate on the nature of an ecological transition, specifically for what concerns the role of the cultural framework.

1. Theoretical framework

Scholars interested in the human-environment relationship, especially in the context of the sustainability discourse, have increasingly turned their attention to Indigenous environmental practices (Milgin et al., 2020; Mistry & Berardi, 2016; Tengö et al., 2017). What characterises the latter, in contrast with the mainstream scientific or ecological approach, is their embeddedness within a specific cosmovision and cultural context, which is strictly connected to the environmental practices enacted within it.

Applying Berkes' definition, Indigenous Ecological Knowledge (IEK) is defined as "a cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment" (Berkes, 2012, p. 7).

Notwithstanding the potentially broad and vague nature of this definition, it proves beneficial by emphasizing the robust connection between practices and beliefs. Indeed, these knowledge systems are situated within a moral and ethical context, wherein nature and culture remain intertwined rather than separate and where "purely ecological aspects of tradition cannot be divorced from the social and spiritual" (Berkes, 2012, p. 6).

The interrelation between cultural framework, knowledge formation and environmental practices has been outlined in different ways by various authors. In Kalland's (1994) view, there are three layers of knowledge: empirical, paradigmatic and institutional. The first kind defines practical knowledge stemming from direct observation; the second one comprises the empirical observation and the related context, while the latter defines the knowledge inscribed in social institutions and norms. Orlove & Brush's (1996) distinction, instead, follows Nabhan's (1985) theory and distinguishes among Indigenous environmental knowledge, the management practices arising from that knowledge and the spiritual values and rituals regarding plant and animals. Another perspective is provided by Stevenson (1996), whose definition of traditional ecological knowledge identifies three different components, namely knowledge of the environment, knowledge of the ecosystem dynamics and a set of moral and ethical principles guiding human-nature relationship (Kalland, Orlove & Brush, Nabhan as cited in Berkes, 2012).

Building from previous theories, Berkes sketches his own schematization of Indigenous Ecological Knowledge by defining a "knowledge–practice–belief complex" comprised of four levels: local and empirical knowledge of land and animals; land and resource management systems; social institutions; worldview.

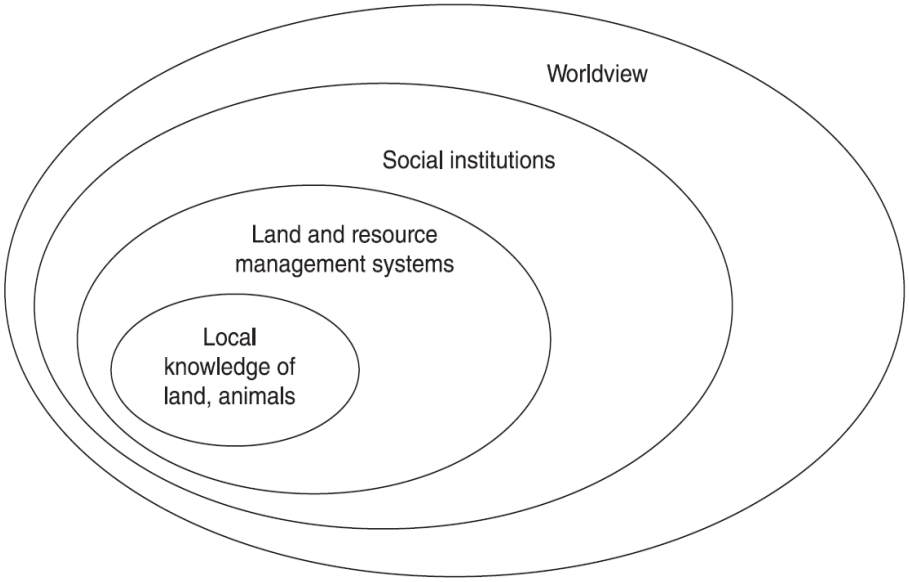

Figure 1. Levels of analysis in traditional knowledge and management systems. Adapted from Berkes (2012, p. 17).

The first level, empirical knowledge of land and animals, describes the practical insights about the local landscape and its flora and fauna, their distribution and behaviour, and is of fundamental importance in terms of survival. The second level, land and resource management systems, adds to the empirical knowledge of the local environment an appropriate complex of techniques, habits and methods for its organization and use. The third level, social institutions, describes the rules and codes inscribed in social relationships that render the management systems effective. And finally, the fourth level, worldview, provides meaning for all the previous ones. Encompassing religion, moral values, and belief systems, it shapes people's perception of the environment, the management practices arising from it and the social institutions sustaining them (Berkes, 2012).

What all these frameworks, and especially Berkes' one, highlight is the fundamental role of the cultural and cosmological framework in shaping and determining the environmental practices. Indeed, "cultural patterns are important to understand the relationship between man and nature" (Rodríguez-Navarro, 2000, p. 456). When referring to "cosmological framework", I adopt the term cosmology with the same connotation of Berkes' "worldview". However, its meaning can be further elucidated as it follows. Cosmology can be defined as the discourse about the universe: its origins, the beings that compose it and their relation among each other (that is, ontology), the way it works and where it is heading to (Kyriakakis, 2014).

In order to further describe this point, Berkes insists on the fact that Indigenous Ecological Knowledge is composed of practices that are sustained by various social mechanisms. Again, these social mechanisms can be divided into more sub-categories, as shown in the following table.

Management practices based on ecological knowledge
Practices found both in conventional resource management and in some local and traditional societies
Monitoring resource abundance and change in ecosystems
Total protection of certain species
Protection of vulnerable life history stages
Protection of specific habitats
Temporal restrictions of harvest
Practices largely abandoned by conventional resource management but still found in some local and traditional societies
Multiple species management; maintaining ecosystem structure and function
Resource rotation
Succession management
Practices related to the dynamics of complex systems, seldom found in conventional resource management but found in some traditional societies
Management of landscape patchiness
Watershed-based management
Managing ecological processes at multiple scales
Responding to and managing pulses and surprises
Nurturing sources of ecosystem renewal
Social mechanisms behind management practices
Generation, accumulation, and transmission of local ecological knowledge
Reinterpreting signals for learning
Revival of local knowledge
Folklore and knowledge carriers
Integration of knowledge
Intergenerational transmission of knowledge
Geographical diffusion of knowledge
Structure and dynamics of institutions
Roles of stewards/wise people
Cross-scale institutions
Community assessments
Taboos and regulations
Social and religious sanctions
Mechanisms for cultural internalization
Rituals, ceremonies, and other traditions
Cultural frameworks for resource management
World view and cultural values
A world view that provides appropriate environmental ethics
Cultural values of respect, sharing, reciprocity, humility, and other

Table 1. Socio-ecological practices and mechanisms in traditional knowledge and practice. Adapted from Folke et al. (1998) as cited in Berkes et al. (2000, p. 1253).

Some of these social mechanisms involve the way knowledge is produced and transmitted; others describe the social institutions underlying management practices. Identifying some people as stewards of the natural resources, for example, provides them with the incentive to protect them. Likewise, taboos and regulations, together with social and/or religious sanctions, would prevent people from over-exploiting local reserves. Rituals and ceremonies are described as aimed at

internalising cultural norms. And finally, again, worldview and cultural values are presented as pivotal social mechanisms at the basis of the management systems. This framework highlights, on one hand, the importance of a cosmology grounded in a strong environmental ethics as "an essential component for traditional knowledge and practice for ecologically sustainable outcomes" (Berkes et al. 2000, p. 1259). On the other, it recognises the role played by cultural values such as "respect, sharing, reciprocity, and humility" (Berkes et al. 2000, p. 1259).

As previously stated, there has been a growing interest among scholars in taking up Indigenous Ecological Knowledge, in various ways (Milgin et al., 2020), from the integration of Indigenous practices and insights into the Western scientific paradigm (Berkes 2012; Ens et al., 2015), to the consideration of Indigenous ethics as an example of a more balanced human-environmental dynamic (Salmon, 2000). This is particularly true in the case of the management of resources and ecosystem dynamics. Due to the pressing problems presented by the current environmental and ecosystem crises, scientists at an international level are eager to consider Indigenous perspective and practices about ecosystem functions and resource management (Berkes, 2012; Ens et al 2015; Mistry & Berardi, 2016). Indeed, "engagement of indigenous peoples and local communities is vital for these knowledge contributions, also as they live in, manage and own vast areas of land often rich in biodiversity and of significance for the generation of critical ecosystem services" (Tengö et al., 2017, p. 17). However, adopting Indigenous Ecological Knowledge outside its context entails some problems, such as that of resorting to Indigenous practices within a different epistemological and ontological framework, thus failing to completely understand the cultural meaning of those practices. Despite the need to adopt a "decolonising methodology" in order to employ IEK, the general, persisting trend appears to be that of incorporating Indigenous practices within Western cosmology, due to a fundamental epistemological difference (Mistry & Berardi, 2016).

Instead of focusing on the Indigenous Ecological Knowledge as a useful compound of information on biodiversity, ecosystem functioning or resource management practices, I would argue that it is both more interesting and valuable to shift the attention to the other pole of the "knowledge-practice-belief complex", which is the worldview and cultural paradigm. Instead of extrapolating Indigenous practices and adapting them to an external cultural context, it is worth considering the cultural norms and cosmology that shape those practices. As a result, instead of integrating Indigenous practices within the Western cultural paradigm, the focus would move to the Western paradigm itself and to the extent to which it fosters or hinders the emergence of ecological and sustainable practices. With the adoption of the Indigenous Ecological Knowledge framework as a theoretical basis for this analysis,

it is then possible to appreciate the role of a cosmology and cultural values in shaping environmental practices that can provide an ecological balance.

The Indigenous Ecological Knowledge framework goes hand in hand with the conception of cosmology proposed by Reichel-Dolmatoff (1976). Building on his ethnographic work with the Tukano Indians of the Colombian Northwest Amazon, he describes Indigenous cosmology as a tool through which the ecological balance is preserved. Indeed, the Tukano's belief system, based on the idea that the spirits of certain animals cause illness, prevents excessive hunting; similarly, cultural norms pertaining to food and sex result in a social mechanism of birth-rate control. Not only does Reichel-Dolmatoff's view encourage a move beyond the Western nature/culture dualism (Mora, 1995), but it also emphasizes the strong connection between cosmology, spiritual believes, cultural and ecological behaviours. In the case of this research, then, the fundamental question is: how does the Arhuaco cosmological and cultural paradigm influence their ecological practices?

2. Socio-geographic and historical context

2.1 The Arhuacos and the Sierra Nevada de Santa Marta: socio-geographic context

The Arhuacos are one of the four main Indigenous groups inhabiting the Sierra Nevada de Santa Marta, an isolated mountainous region on the North coast of Colombia. Its area covers approximately 17,000 km^2 and it reaches 5775 m above sea level (m.a.s.l) of altitude, making it the largest and highest coastal mountain complex in the world (Duran-Izquierdo & Olívero-Verbel, 2021; Ferrari Cortés & Sáenz Forero 2022; IDEAM, 2021). It presents a bimodal climate, comprised of a dry season (from December to August) to a wet season (from April to September) (CIT, 2015). Its average temperatures span from approximately 27 °C at sea level to 0 °C in the higher parts (Duran-Izquierdo & Olívero-Verbel, 2021). Due to its marked altitudinal variation - it presents all Colombian thermal floors (CIT, 2015) -, this region is rich in ecosystem diversity, which include dry and wet tropical forests, sub-Andean and Andean forests, mountain swamp, and areas with perpetual snow cover and glaciers (Strewe & Navarro, 2003; Cardona & Ojeda, 2010). The high diversity of biomes also implies a high biodiversity in terms of plant and animal species (Bonet et al., 2011). Moreover, its 35 watersheds provide water for 1,5 million people in the region (Rodríguez-Navarro, 2000). Due to its richness and unicity, in 1979 the region was declared an UNESCO Biosphere Reserve (UNESCO, 2020), while in 2013 it was labelled by the International Union for Conservation of Nature (IUNC)

as one of the world's most irreplaceable ecosystems with regards to its contribution to the long-term survival of endangered species (IUCN, 2013).

The political-administrative organization of the territory it complex. The Sierra Nevada de Santa Marta comprises three departments (Cesar, Magdalena, Guajira) which include 20 municipalities. In addition, it presents two National Natural Parks (NNP Tayrona and NNP Sierra Nevada de Santa Marta) and the archaeological park of Teyuna-Ciudad Perdida. Finally, there are nine Indigenous *resguardos*, established between 1983 and 2003. The main ones are the Arhuaco (1983), Kogui-Malayo-Arhuaco (1980) and Kankuamo (2003). In addition, there are six *resguardos* belonging to the Wayuus (1986-1994) (ProSierra, n.d.-b).

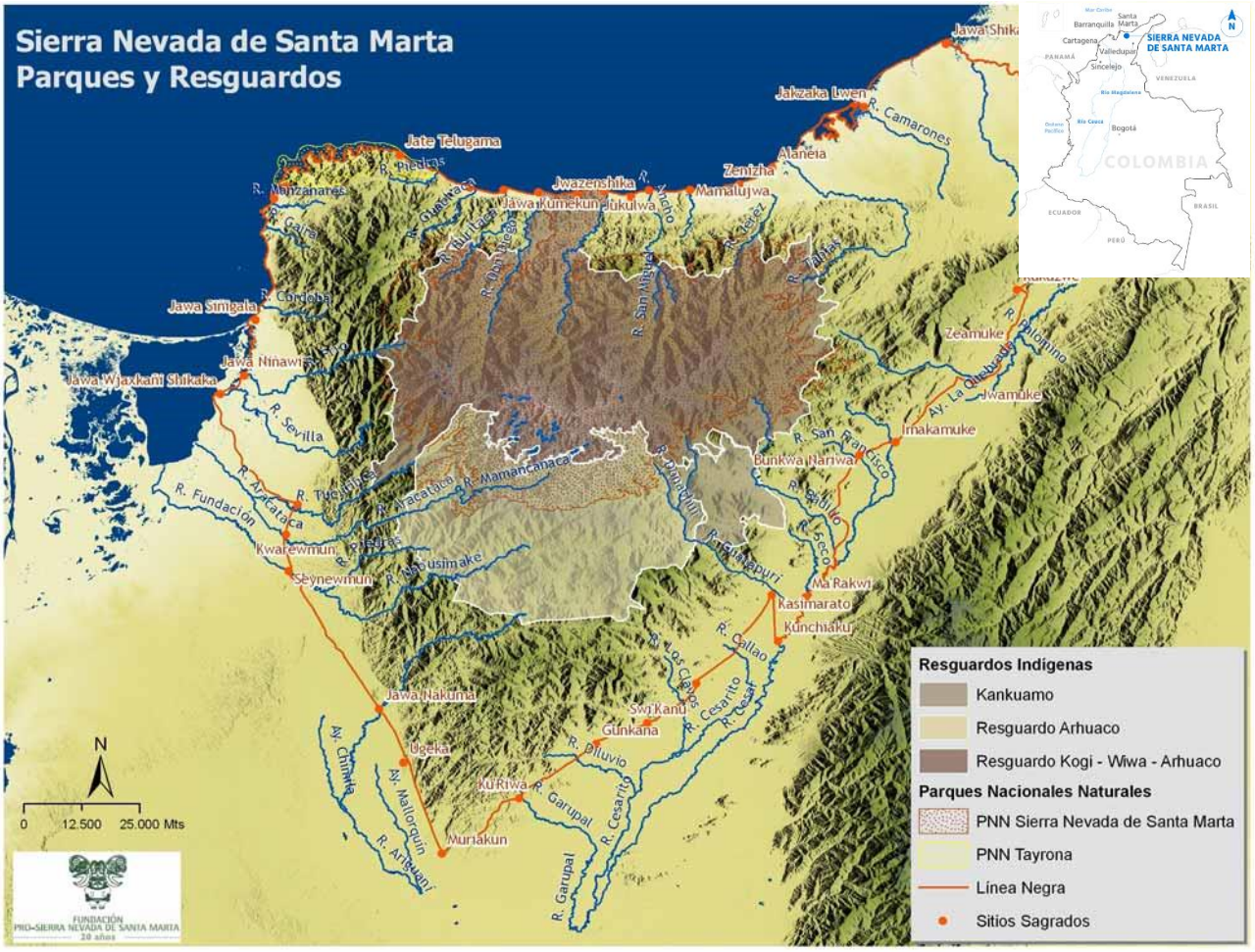

Figure 2. Map of the Sierra Nevada de Santa Marta, with Indigenous *resguardos* and National Parks. Adapted from ProSierra (n.d-b) and La Sierra Nevada, El dishielo y la cuna de una civilización milenaria (n.d.).

The Arhuacos are established mainly in the middle part of the Southern and Western slopes, but some population centres exist in the Northern slope as well, in the basins of the Don Diego and Mingueo

rivers. Their ancestral territory spans the entire southern and western region, from the snow-capped peaks to the foothills between the Guatapurí River in Valledupar and the Mamatoco River in Santa Marta. However, despite a process of land re-appropriation and legal recognition, which began in the 1970s, the area they currently inhabit constitutes merely 38% of their ancestral territory, with only 28% receiving official recognition (CIT, 2015). Moreover, the Arhuacos share the territory of the Sierra Nevada de Santa Marta along with other three main Indigenous groups, namely Wiwas, Kankuamos and Kogis (DANE, 2021), which are represented by four Indigenous organizations. The Gonawindúa Tayrona Organization (*Organización Gonawindúa Tayrona*) serves as the representative body for the Kogis, the Arhuacos, and the Wiwas. Furthermore, the Tairona Indigenous Confederation represents the Arhuacos, while the *Bunkwanarwa Tayrona* represents both the Wiwas and the Kogis. Lastly, the Kankwamos' political interests are advocated by the Kankuama Indigenous Organization (*Organización Indígena Kankuama*) (Botero, 2005). Additionally, all four indigenous groups came together in the Territorial Council of Cabildos (*Consejo Territorial de Cabildos*) in 1999 (Ulloa, 2011).

According to the cosmovision of the Indigenous people of Sierra Nevada, their ancestral land is delimitated by the *Linea Negra* (Black Line), a boundary connecting various sacred sites and thus configuring the limits of their territory. Such territory was officially recognized by the Colombian state in 1973 through the 000002 resolution of 04/01, which was then modified by the 837 resolution on the 28th of august 1995 (CIT, 2015). However, as indicated previously, only a limited portion of this ancestral land is recognized and inhabited by Indigenous people today.

2.2 The Arhuacos and the Sierra Nevada de Santa Marta: historical context

The arrival of Spanish colonizers in Nabusimake, the Arhuaco capital, in 1525, marked the beginning of external actors' intrusion in the Indigenous ancestral territories of the Sierra Nevada de Santa Marta (CIT, 2015). They not only decimated the local population but also confiscated their land and subjected them to enslavement. Subsequently, in 1693, the Capuchinos missioners commenced an evangelization process in those territories, significantly impacting the cultural and religious landscape (Guáqueta-Solórzano & Postigo, 2022; Viloria-de-la-Hoz, 2005). Despite centuries of colonization, Indigenous land was officially returned to its inhabitants through Law 155 in 1871 (Fundación Pro-Sierra, 1991). However, while representing a landmark in the history of Indigenous people's reclamation of their territory, this law was only a partial victory. The official recognition of the obligation to return land to its original people and respect their political rights did not translate into

practical implementation. An agreement signed between the Colombian State and the Church in 1887 reignited and strengthened the efforts of the Capuchin missions, leading to cultural and religious conversion operations. These operations involved dismissing local practices, beliefs, and authorities, seeking to replace them with Christian values and institutions (CIT, 2015; Fundación Pro-Sierra, 1991).

Concurrently, the intrusion of *colonos* ("settlers") into the territories of Sierra Nevada de Santa Marta in the 1920s became a significant issue alongside the efforts of the Capuchin missioners. The Arhuacos found themselves under dual pressure: from religious missioners on one hand, and from *campesinos* ("farmers") interested in productive land on the other. In response to this situation, in 1930 a land and culture defense movement, known as the *Liga Indígena de la Sierra Nevada*, was initiated. The 1950s witnessed a period of extreme violence and political upheaval throughout the country, resulting in new invasions of Indigenous territories (Fundación Pro-Sierra, 1991). Another wave of occupation occurred in the 1970s with the arrival of the so-called *bonanza de marijuana* ("marihuana boom"). Illegal producers of cocaine and marihuana, along with armed groups (*guerrillas* and *paramilitaries*), brought conflicts into Indigenous territories, leading to the destruction of the natural landscape (CIT, 2015; Fundación Pro-Sierra, 1991; Guáqueta-Solórzano & Postigo, 2022). Nevertheless, the Arhuacos, in conjunction with other Indigenous groups in the territory, resisted and obtained legal recognition of parts of their ancestral territories. In 1973, the Linea Negra was officially recognized, followed by the creation of the Arhuaco reserve in 1974 (Resolution 113 of December 4/74). Subsequent recognitions include the establishment of the Kogi-Malayo (Wiwa) resguardo in 1980 (Resolution 0109 of October 8/80), the Arhuaco resguardo in 1983 (Resolution 078 of November 10/83), and finally, the Kankuamo resguardo in 2003 (Resolution 012) (Fundación Pro-Sierra 1991; Torres Perico, 2018). Despite this recognition, socio-environmental conflicts related to the presence of armed groups, illegal cultivation, and extractivist projects endured in the Indigenous territory, all along the 1990s and persist including in contemporary times (Cabildo Arhuaco de la Sierra Nevada, 2015; Giraldo Jaramillo, 2010; Guáqueta-Solórzano & Postigo, 2022; Osorio Granados, 2019; Ulloa, 2011).

2.3 Bunkwimake

After crossing the Don Diego River, we ascended the mountain slopes on the backs of three mules. When I say "we," I am referring to Diana, her daughter Areliz, her sister Souheidi, her two-year-old nephew Andrea, and myself. They belong to the Arhuaco village of Bunkwimake, which was our

destination. Diana is the oldest sister of the family, in her late twenties, and is studying nursing at the University of Santa Marta, the nearest city. However, considering it as "near" might sound a bit euphemistic. As the entire morning journey had shown (we had departed precisely from Diana's apartment in Santa Marta), there is no way to reach Bunkwimake in less than 5 or 6 hours (which become even longer without the mules), unless, of course, you use a helicopter. Diana explained to me that this is how the materials for the construction of a health clinic were transported to the village a few years earlier.

The considerable distance separating her community from the nearest hospital made it challenging for people to respond to emergencies. Although they had their traditional medicine system, led by the local medical authority, it did not always provide appropriate solutions to urgent health situations experienced by the people of the village. When Diana's aunt met a Spanish doctor and invited him to visit her village, he became interested in helping the community. Therefore, together, they decided to build a new health clinic. This is how the DUNI project started, with the support of Malteser International (Bandera, 2015).

Yet, constructing a new health post was not sufficient; what the community needed was someone capable of administering medical treatments directly in the village. Therefore, part of the project funds were designated to pay for the nursing studies of a member of the community committed to working at the health clinic, and that person was Diana. She told me that the problem in the old medical centre was that the medical authority wanted to use traditional medicine to cure everything, including the most severe cases. However, traditional treatments sometimes would not suffice in such cases. This is why they needed someone like her, trained in both traditional and Western medicine, to be able to choose which one to adopt according to each situation.

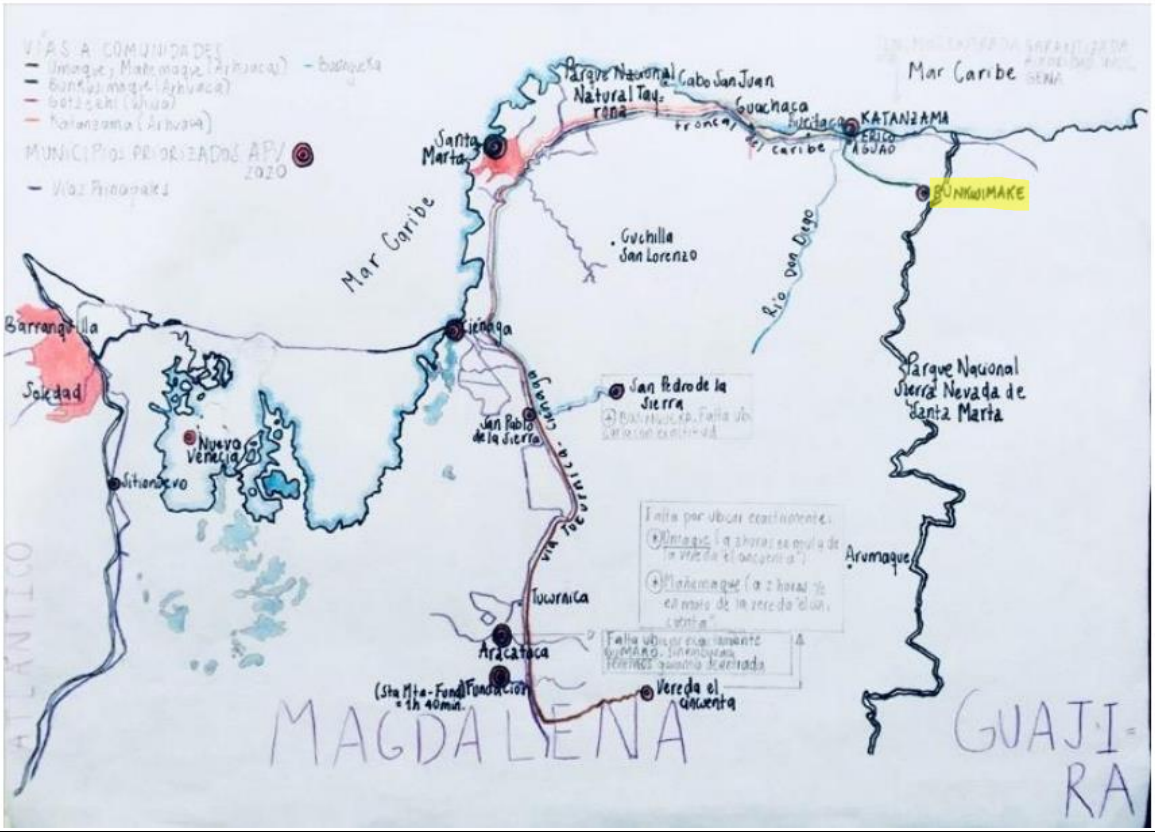

Figure 3. Map of the Sierra Nevada de Santa Marta, with emphasis on Bunkwimake. Adapted from Ferrari (2022, p. 69).

Diana and I had met a couple of months before, in the context of a project developed by an association from my university in Bogotá, which was working with Indigenous and *campesino* communities in Colombia. That's how I ended up in Bunkwimake in the first place. Despite not aligning closely with the association's methods and goals, I had developed a strong bond with Diana. So, when I asked her if I could return to the village on my own, she enthusiastically agreed. I wanted to contribute to something that, in her opinion, the community needed. Therefore, we decided to work together in the traditional plants garden, located next to the health post.

After a final ride on the mules, along an up-and-down path weaving through astonishingly rich vegetation, and the air filled with sounds of monkeys and birds, we finally reached her family's house. Although Bunkwimake has a centre where the school, health post, two small shops, and other buildings for communal use are located, each family (about 1000, according to Diana) lives on their own plot. Diana's family was only fifteen minutes away from the village. She couldn't specify the exact size of their land, but she mentioned that it would take at least three hours to walk along its length. However, some buildings stand at the core of the plot, and that is where most of the family

life takes place. There's the kitchen, a wooden, rectangular construction covered by a palm leaves roof, where the food is prepared using a traditional oven. Just in front, there is another rectangular, open-air construction, composed of wooden poles sustaining a palm leaves roof. That is where I would sleep at night, hanging in my hammock. On its side, there is a house made of barren bricks, still under construction, while next to it lies the house with rooms for all the other family members: Diana's parents, her eight siblings (two adopted from a Kogi community), two nephews, and her daughter. However, the entire family was not there when we arrived, and I did not manage to see all of them during the time I spent there.

Just behind the wooden kitchen, a pipe was adjusted to pour water into a blue, wide, tall tank, which was used to wash clothes or to take an improvised shower. We used another small plastic container to collect water from it and spill it on our bodies. At first glance, that blue tank might have seemed like just a useful material tool; in reality, it reveals part of Bunkwimake's history. Like other parts of the Sierra Nevada, that land had experienced the violence and conflicts brought by farmers, armed groups, and illegal crop producers.

One night, while sitting in front of the fire, Diana told me that in the past, that land belonged to the Kogis but was then occupied by the campesinos, who started exploiting the territory to produce marijuana and cocaine. After gathering in a spiritual consultation, the Kogis received the message that those who could reclaim the land were precisely the Arhuacos. Therefore, they managed to reach Diana's grandfather, who rounded up a group of people and started to re-occupy the land. Some *campesinos* agreed to return the land to the Indigenous owners, believing they would take better care of it. Others resisted. However, in the end, the Arhuacos won the dispute and settled in the territory, establishing the community of Bunkwimake in the early 1980s.

Diana mentioned that after being deprived of their once-occupied land, the *campesinos* were given some time to collect their belongings and move away. They took advantage of this time by producing cocaine until the very last moment. However, when they left, they did not bring with them all the utensils they had used in manufacturing. The blue, wide, tall tanks adopted in the cocaine production were left abandoned there. These are, in fact, the tanks that are now used in Diana's house to collect water for washing clothes and taking showers.

Figure 4. Houses in Bunkwimake. Photo taken by the author (June 29, 2023).

3. Arhuacos cosmology, cultural framework and ecological practices

3.1 Pagamento

Every Saturday and Sunday, families scattered around the land belonging to Bunkwimake gather in the centre of the village. One weekend, the reason is to attend to their spiritual work, done under a huge sacred mango tree. The other weekend, they gather for maintenance affairs: while the women sweep the floor with wooden broomsticks, getting rid of dried leaves and sand that have been accumulating, men take care of collecting wood for the village's necessities. After attending to either the village cleaning or spiritual duties, they gather in the central palace of justice, a massive barren construction standing in the middle of the village, to attend to any dispute that needs to be solved within the community or to discuss matters of common interest and make relevant decisions.

On one of those days, we had finished the cleaning up, and I was sitting under the roof in front of the scholar shop, chatting with Juan, the husband of one of Diana's best friend. The topic of our discussion was the way they managed and took care of their piece of land. At some point, he said, "Before cutting off a tree, you have to perform *pagamento* espiritual to Nature; you have to do *limpieza*... because everyone has a mother, including trees."

Some days later, I entered the common kitchen and found the *semanero*, the person invested with the role of supervising the village during the week. Again, we started talking about the management of their territories. He explained to me that, according to a common rule, if you do not perform *pagamento* before planting, you are not allowed to plant anything. For this reason, everyone participates in the *pagamento* ceremony before the planting season (March and August). "When someone sows," he continued, "they're taking the life of many beings that live in the soil. Ants, worms… one has to perform *pagamento* because he has to be conscious of the harm he's causing."

Another day, I was talking to Rodolfo, who has been managing the scholar shop for the past ten years. He was recalling the history of Bunkwimake, of how the Indigenous inhabitants had reclaimed the territory by expelling the settlers and of how they had "healed" the land. When I asked him what he meant by that, he answered, "First of all, you have to work in the spiritual part. If you take a mango, for example, you have to buy it spiritually. If you pick up some yuca, you have to buy it spiritually. Just as in the city you can buy rice, water… here you buy in the spiritual part, so that Mother Earth is not harmed." He then continued talking about the *pagamento*, stating that there are three important times a year when they do it: before burning off the land where they are then going to sow, before sowing, and before harvesting. And he insisted on the fact that when it comes to taking care of land, "you always have to look at the spiritual part."

Pagamento means "payment" and it is "a way to repay Mother Nature for all the benefits we receive from her for our subsistence" (CIT, 2015, p. 100). According to Arhuaco cosmology, "it is our responsibility to carry out traditional *pagamento* and healing and thus compensate for the benefits we receive from Mother Nature; we must also reciprocate to the ancestral guardians of the elements and manifestations of nature so that they allow the life of all societies" (CIT, 2015, p. 24). *Pagamento* represents then a cultural practice embodying the deep awareness of humans' actions implications and their consequent responsibilities. By providing a spiritual compensation for the material damage caused, such practice is extremely relevant as it exemplifies a worldview based on reciprocity and interconnection, which, in turn, shapes actions and attitudes in the management of the territory.

Hence, it corresponds to one of the social mechanisms regulating human-environment interaction (Berkes et al., 2000).

3.2 Human-nature relationship: care, interdependence and ecocentrism

In Berkes' knowledge-practice-belief complex, a worldview implying a strong environmental ethic figures as one of the prominent social mechanisms ensuring the preservation of ecological balance in society's interaction with its environment. This is precisely the case with the Arhuaco cosmology and worldview, which presents taking care of nature as one of its core values. "We take care of nature; it is part of our culture. If we start damaging it here, how are the people who live downstream going to do? They won't have water" said Diana to me once. On another day, I sat in front of the health post, talking to Juan Manuel, one of the traditional authorities. He explained to me that they (referring to his people, the Arhuacos) take care of nature because they were created together with her, in the sky, at the same time as the trees and the stones. The sense of duty regarding protecting nature as part of the Arhuaco identity and culture not only emerged in spontaneous conversations but can also be inferred from the official communications elaborated by the main organization representing them, the Tairona Indigenous Confederation (CIT, 2015).

Respecting and taking care of nature, thus preserving a balance not only within the territory of the Black Line of Sierra Nevada de Santa Marta, but also in the whole universe, appears to be a goal in itself. However, this ethic of care stems also from the awareness that human existence and well-being are connected and dependent upon the integrity of its natural surroundings. This certainty is an integral part of the Arhuaco worldview (CIT, 2015). "When we take care of nature, we take care of ourselves," continued Juan Manuel. Or, in José's (Diana's dad) words: "You say you take care of nature, but the reality is that you're taking care of no one but yourself, because we depend on nature." A similar idea was expressed by Juan during our conversation: "If you do not take care of nature, she will end you." Identifying people's salvation as directly linked to nature's salvation appears to be another social mechanism (involving cultural values and worldview) which underlies a sustainable environmental management.

The dependence of human well-being on its environmental and social surroundings is also a fundamental aspect of the Arhuaco traditional view of medicine. On one occasion, I was working with the health promoter in the traditional plants' garden, located next to the health post. His perspective was that Western medicine should serve as a complementary tool to traditional medicine,

which is rooted not only in natural remedies but also in an understanding of the mental and spiritual causes of an illness. For instance, if someone experienced a headache, the health promoter believed it could be caused by relational imbalance within the person's family or couple. In such cases, he took responsibility for addressing this imbalance. The concept of a person's health was not considered independent of their relational ties; instead, it was intricately connected to them.

Just as the social network was considered when analysing the root causes of a health problem, its solutions were also sought in its surroundings—this time, the natural environment. While we were occupied sweeping dry leaves from the garden's ground, the health promoter explained that when he was sick, he would go to the middle of a garden, a field, or the woods, near any plant or tree, and communicate with their spirits. "Spirits talk to each other. Even plant spirits communicate with your spirit." The Arhuaco perspective on human health and well-being is holistic and closely tied to its eco-social environment. However, describing it simply as an "environment" is limiting since, in the Arhuaco cosmology, there is no real separation between humans and nature:

> We exist and endure both physically and spiritually because, both intrinsically and extrinsically, we constitute or simply are part of the same nature that surrounds us. (CIT, 2015, p. 125)

Considering oneself as part of nature is another component of a set of cultural believes that promote an ethic of care towards the so-called environment.

Apart from being embedded in the Arhuaco worldview with regards to the need to protect nature and their vision of health, the sense of interconnectedness and interdependence between humans and nature is materially present in their everyday life dynamics. This happens mainly in the form of food. During the three weeks I spent with Diana's family, there was not one single day that would not revolve around food: searching for the raw material, preparing it, and eating it together. As I said, Diana's house stands in the middle of their plot. The extension of their land is such that you would need three hours to walk all along it. Parts of this land are used to produce food for the family's subsistence: they plant yuca, *guineo*, *platano*, corn, mango and avocados. They have some chickens running around the house, whose eggs we ate almost every day. There is a garden with aromatic herbs, that we would use in the night to season the dinner (a bit of coriander could never miss). A couple of minutes from the main house, there is the field where the cows graze. Every morning, after taking breakfast, I would join the girls of the family and go there to milk three of the cows. We would fill a red, plastic jar, carry it back to the house and use the milk for some preparation: either drinking it, or

using it to make cheese or *suero* (a sort of cream that results from letting fresh milk rest during a couple of days). While we were occupied with the milk, the boys of the family, led by Estiven, 15 years old and oldest boy in the house, would go to the fields to collect either yuca, corn or guineo, depending on the day.

Not everything we ate was produced directly from the field, though. At some point, July and Camilo, two of the siblings that were not there when we had arrived, because they were staying at their grandmother's house, at the foothill of the mountain, came back home with some *mercado* (shopping): pasta, corn flower to make *arepas*, tinned sardines, rice, oil, salt and some legumes. Diana had explained to me that almost every Indigenous household in Bunkwimake could be self-sufficient, except for some products such as oil and salt. However, ingredients such as rice were time-intensive to produce, therefore families preferred to buy them when they would go down to the city, or in the shops in the village. And yet, apart from those products coming from the market, most of what we ate every day came directly from their field. I could trace back the origin of almost each one of the products that were composing my plate: the *guineo* that Estiven had collected that same morning, some avocados we had retrieved from the field next to the river, a couple of tomatoes we took from the school's garden… Not only was I aware of the origin of the product, I had also participated in its processing and preparation. What I had in my dish, at night, then, was not just food. It was the material embodiment of my and our connection and dependence upon the earth and nature. In those moments, while we were gathered around the fire in the kitchen, eating and laughing about some story from the day, I realised that that sense of interconnection and interdependence was not just part of an abstract worldview; it was rather a practical, day-to-day life experience. And it stroke me even more when I left Bunkwimake and came back to the city, the first time I went back to do shopping: I had no idea of where the products I was buying came from, nor had it interested me before. Of course, for those interested, information about the origins and production process can be found. Yet, without an active effort on the part of the consumers, the mainstream production-consumption dynamics alienates them from the production process. This creates a distance, which obscures not only the implications such production and the mechanisms behind it, but also the simple, intuitive fact that human well-being and very existence depends on the interconnection with our natural environment, which provides the primordial fabric for our life: food. For intuitive and simplistic that this consideration might appear, Western society had to devise a framework (that of the ecosystem services) to acknowledge it explicitly. Instead, what I felt by sharing the life with Diana's family, in Bunkwimake, was that human interconnection and interdependence with their natural surroundings was materially embodied in their food production process, to which everyone participated and in which everyone was actively

involved. Food turned out to be a material reminder of our interconnection and interdependence with nature.

As presented so far, caring for nature as a person's duty is one of the prominent aspects of the Arhuaco culture. This attitude is also rooted in a deep awareness that human well-being depends directly on nature – traditional medicine and the food production are yet another expression of that. Yet, from my personal observations within the Bunkwimake community and what can be deduced from their official organization, it becomes clear that the commitment to caring for nature goes beyond merely recognizing dependency on it. Every part of nature appears to have value on its own, with humans being just one factor among others. One of those days while we were working in the communal garden next to the health post, the traditional health promoter tried to illustrate to me how nature works for them. He started by talking about limits. "In human body" – he stated – "every cell has its own function and limit. Heart's cells do not go to the brain, and it does not happen the other way around either. In a similar way, every animal, every plant has their own function that they have to fulfil, and human beings as well". Not only does everything has a function, but it is also imbued with life. "Everything is alive. Some people think that stones are not alive. For us, they are." uttered Alfonso, another member of the community of Bunkwimake, at the end of a day of communal care in the village, while he was talking about his Arhuaco culture and worldview. Not only nature's elements, but also every place has a specific function and meaning. "In the Sierra" – he continued – "every site has an order. Just as in the city there are various offices with their different timetables, here in the Sierra every place has its function". Nature is thus conceived as a complex, intertwined whole, where every part plays a specific function to assure a common balance and well-being. Indeed, in the Arhuaco cosmology, the dynamics underpinning the relations among every part of the natural system are described as a "correlation of benefits":

> The correlation of benefits is expressed throughout the functioning of nature: the seas need freshwater to cool their heat, freshwater needs the sea to facilitate its movements; the temperature of the earth needs to alternate to establish a balance, for which heat and cold are provided; the food chain constitutes one of the clearest examples of the correlation of benefits, and so on; everything is a correlation of benefits as a law of unity. (CIT, 2015, p. 16)

According to such worldview, humans, and specifically the Arhuacos, are nothing but "one more expression, one more element that interacts with the beings and energies that make up a harmonious

and balanced whole" (CIT, 2015, p. 11). Recognizing each element's role implies understanding that affecting one means affecting the whole:

> We know, according to our traditional knowledge, that it is not possible to maintain a physical and spiritual balance in the Sierra Nevada if the foothills are affected, as is currently happening. Our culture is built on the life experience in this territory and the management practices we have learned to ensure its continuity. (CIT, 2015, p. 33)

Similarly, according to their cosmology, it is illogic to damage a part of "Mother Earth", since any attack on any of its components would negatively impact all the rest:

> We are children of the Earth, and that is why our bodies are shaped in resemblance to hers. All of its parts serve a function, and therefore, the destruction of any of them generates an alteration that inevitably affects the life of all beings inhabiting the Earth. For us, it is inconceivable to extract solid, liquid, or gaseous parts from the depths of Mother Earth, as we would be destroying her internal organs, and in doing so, incalculable disturbances are provoked, bringing us closer to the end of life on the planet. Hurricanes, stormy rains, floods, as well as earthquakes, are some of the manifestations caused by human assaults on Mother Earth. (CIT, 2015, p. 33)

All of this considered, the Arhuaco cosmology can be described as ecocentric, since it attributes to human beings the same value as to non-human beings (including non-living entities, like stones). It is a cosmology which is deeply characterised by an ethos of care towards nature, paired with a clear sense of interdependence, interconnection and relationality, linking humans with their eco-social surroundings (Prada et al., 2021). Such a worldview is coherent with an ecological understanding of reality and informs their practices with respect to the land they inhabit, thus figuring as yet another cultural, social mechanism which underpins the preservation of an ecological balance.

3.3 Limits and sacredness

From what has emerged up until this point, it is clear that the Arhuaco worldview – as it is reflected by the members of the community of Bunkwimake, as well as by their official organization – is characterised by ecocentric values such as reciprocity, interconnection, interdependence and care. Humans and non-human beings alike are part of a whole, which they inhabit holistically, and whose functioning depends on the integrity of all of its components. Referring once more to Berkes' "knowledge-practice-belief complex", it is possible to emphasize the nexus between such worldview,

based on a strong environmental ethic, and the ecological practices enacted by the community. This becomes even more evident when considering the social mechanisms regulating land use and natural resources management.

During the time I spent in the community, I lived with Diana's family and thus had first-hand experience of their land management practices. Only a portion of their plot was planted or reserved for cows' pasture, and everything they produced from their land was aimed at satisfying the family's needs. I could not visit directly other families' plots. However, what is interesting is what I gathered conversing with people with respect to how they oversee their land, and the reasons behind their approach. One day, I was talking to one of the s*emaneros*, asking him about his portion of land. "Is all of your plot cultivated?" I inquired. "No, most of it is virgin mountain. It is untouchable. It is land where men never worked." When I then asked once more if that land could be cultivated, he replied, appearing puzzled by the question: "And for what? If someone already has enough for his own consumption with just a *pedacito de tierra* (small piece of land)…". To him, cultivating land was primarily aimed at sustaining himself and his family. Edelmar, Diana's neighbour, expressed a similar view: "Indigenous people use their land for self-sufficiency, not for selling. A civilian from the outside might think: *With all of this land, I would use it for livestock, I would produce more…* but we are not like that". Self-sufficiency, instead of profit-drive production, figures thus as a cultural value driving Arhuaco land management. Certainly, this does not imply that every individual born in an Arhuaco community necessarily embodies this value. It is important to make this distinction, as Juan Manuel, one of Bunkwimake's traditional authorities, reminded me: "A person can be born as Indigenous, but if they always think about owning more, they are not thinking as Indigenous. Indigenous people work in their land to live from it, and not to accumulate or to get richer". Marking a distinction between Arhuaco cultural values and the behaviour of every single member of their society is fundamental: it would be naïve or simplistic to expect any person belonging to an Indigenous community to adhere completely to their cultural paradigm. However, once this distinction has been laid out, it is also possible to recognize the importance of such cultural paradigm, speaking in a broader sense, and of its practical implications. Conceiving the relationship with land in terms of self-sufficiency, instead of accumulation of profit of wealth (CIT, 2015), can thus be described as another social mechanisms (in this case, cultural values) that prevents land from being overexploited, thus assuring an ecological balance.

However, self-sufficiency as a cultural norm is not the only social mechanism regulating Arhacos' land management. Another pivotal cultural value is represented by the sense of limit. In the

community of Bunkwimake, every family owns a plot of land and is relatively free to manage it autonomously. Yet, one of the social rules to follow is that the land use cannot be excessive. When I asked one of the members of the village if everyone could manage their territory as they liked, he replied: "Yes, but not really. There are limits. You cultivate one *pedacito* (small part), then another… there are seasons. Because if you cultivate everything you own, then when it ends, how do you do?" The rules regarding the limits of tree logging are established at a communal level, during the community reunions, following the indication of the *mamo*, the highest spiritual head of the community, according to what Edelmar explained to me. He reckons that, following such rules, only about 10 % of the whole territory of Bunkwimake is cultivated. The same rule applies on other territories of the Sierra Nevada, too, according to the Tairona Indigenous Confederation (Guáqueta-Solórzano & Postigo, 2022). Traditional authorities are then entrusted with the task of supervising the application of these indications. This is one of the social mechanisms presented in Berkes' framework: the roles of stewards as part of the institutional structure and dynamics aimed at preserving an ecological balance. Yet, I would argue that the role of the authorities is secondary with respect to the cultural paradigm within which they act. José's explanation on how the rules' application work is telling in this sense. He says that if someone starts to cut too many trees or have too much pastureland, "it looks bad" and "it catches the authorities' attention". Placing emphasis on the fact that not only would exploitative behaviour go against common rules but that it would also attract attention precisely because it is considered negative highlights the existence of a general, common sense according to which such behaviour is socially and culturally unacceptable. Labelling an attitude of excess and overexploitation as negative is then just another social mechanism, involving cultural values, which results in a regulation of land use. Moreover, the use of sanctions represents yet another indication of the importance of the social structure in the traditional land management system and its effectiveness (Rodríguez-Navarro, 2015).

Apart from the rules regarding tree logging and land cultivation, other social norms present in the community involve the regulation of fishing and hunting. According to Diana, there are temporal restrictions on the fishing activity, corresponding to the time when fish reproduce; similarly, there are periods of the year when it is not allowed to hunt wild animals. These strategies are common to other Indigenous ecological knowledge systems as well (Berkes et al., 2000).

Special attention is also given to specific species of trees or places where lodging is not just limited, but completely forbidden. Diana's house stands quite close to the centre of the village, only about fifteen minutes of walk away. As the health post and the communal garden are located just next to the

centre of the village, we would walk that path, back and forth, every day. First, we had to cut across the cows' pastureland; then, after climbing over a fence, we would travers a small river, *Don Dieguito*. This passage always took me some time: while Diana and her sisters were agile in jumping from a stone to another, I had to take off my shoes, roll up my trousers, and slowly walk through the river, with my feet aching at each step because of the pebbles on the river's bed. After getting to the other side, the path ran parallel to the course of the river for a while, before departing on its left, where a short climb would finally bring us to our destination. Every day, on this path next to the river, we would pass by a giant, magnificent tree. It was a caracolí. It looked beautiful, filled with grace, yet, at the same time, somehow humble. Diana told me it was sacred and that, just as the other trees standing next to the river, it was forbidden to chop them off. Once, her dad had even been fined for cutting a caracolí, even though it was standing in their plot (he had done so because some bird had made a nest on a caracolí nearby their houses and was attacking their chickens). Caracolís, together with other tree species growing around the rivers, are sacred and therefore must be protected. Their sacredness, though, appears to be directly linked to their role within the ecosystem functioning. During one of my conversations with Juan Manuel, the traditional authority, around land management, he said something that caught my attention: "Each family has its own plot and can manage it, but there are rules. For instance, water is very important and cannot be depleted. That's why trees near water sources cannot be cut down. See all these forests on the mountain tops?" - he continued, pointing with his finger at the mountains around us, whose peaks were completely covered by vegetation - "They are not logged because there is water there". His comment completes the sacredness-protection nexus by showcasing how the sacred attribute of certain trees or species is mirrored by their vital function for the ecosystem stability: in this case, providing water. There are other sacred sites where it is forbidden to clear the vegetation. When I asked Rodolfo, the manager of the shop next to the school, if doing *pagamento* would allow them to burn or cut trees in any place, he responded negatively, asserting that there are sacred sites where that it not permitted at all. Apart from the trees growing next to rivers or water sources, another site receiving special protection is that of virgin forests, where human intervention is prohibited and punished with a fine, according to Edelmar. The importance of virgin forest within an ecosystem, in the provision of what Western science calls "ecosystem services", is widely known (Brockerhoff et al., 2017).

The fact that social rules and the sacredness of specific areas or species contribute to the protection of natural sites is not only a feature of Arhuaco culture, but it is common to other Indigenous Ecological Knowledge systems as well (Berkes et al., 2000; Prada et al., 2021). Sacredness shapes social behaviours, since the "concept of differentiated spaces or places sets the way of assuming

activities and practices of the community, producing some communitarian or communal codices that establish what is possible to do or not do" (Prada et al., 2021, p. 14). Moreover, sacred natural sites, which can be defined as areas of land and water having "special spiritual significance to peoples and communities" (Oviedo & Jeanrenaud, 2007, p. 77; Verschuuren et al., 2010), are also recognized for their importance in biodiversity conservation, even though this is not necessarily identified as the reason why they are established by the community in the first place (Berkes et al., 2000). Worldwide, a significant number of sacred natural sites boast rich biodiversity, offering robust opportunities for biodiversity conservation. The custodians of these sacred locations embody cultural expressions that, often implicitly, demonstrate a dedicated care for nature. Beyond their spiritual and intangible heritage connections, these sites also harbour substantial material elements. Apart from serving as havens for flora and fauna, they yield valuable resources like water, medicine, and various ecosystem services. Cultural services and human well-being are also intricately linked to sacred sites (Verschuuren et al., 2010). Ultimately, the existence of sacred sites in Arhuacos' relation with the territory and the role they play in biodiversity conservation and ecosystem regulation is another expression of a social mechanism whereby cultural values sustain an ecologically sustainable behaviour and practices.

4. Arhuaco cosmology, ecological practices and natural conservation: a broader overview

My experience in Bunkwimake provided me with first-hand insights on how various traits of the Arhuaco culture, cosmovision and social norms influence their practical relation with the environment. Spontaneous conversations, direct observations and my own lived experience helped shaping my perception of Arhuaco cosmology as ecocentric, grounded in a sense of reciprocity, interconnection, interdependence and care with respect to the land they inhabit and their human and non-human elements. Their social dynamics include cultural and institutional mechanism which avoid natural resources overexploitation, while fostering the protection of sites embodying ecological and cultural value. This set of cultural values, worldview, and social mechanisms has been described as part of the "knowledge-practice-belief complex" adopted by Berkes to outline Indigenous Ecological Knowledge systems. In doing so, emphasis has been placed on the role played by Arhuaco cosmology, cultural framework, and social norms in shaping their ecological practices.

Arhuaco environmental practices in terms of land and biodiversity conservation and ecological adaptation have drawn extensive academic interest. Recent research provides a more comprehensive

overview of the array of their practices, which range from reforestation, protection of sacred sites, environmental education, to passive restoration, which means that degraded land is not use for around 20 years in order for it to regenerate autonomously (Guáqueta-Solórzano & Postigo, 2022). The intensiveness of harvesting is limited, while farming practices follow the seasonal calendar of traditional cultivated species, which results as well in a good adaptation strategy in the face of climate change (Guáqueta-Solórzano & Postigo, 2022). Agricultural practices are also dependent on the cosmological calendar, which is part of Arhuacos' ancestral knowledge. Through this calendar, the *mamo* determines the most suited sites and times for sowing and harvesting, with the aim of assuring the most productive and nutritive yield. The adherence to such calendar has proven to be of inestimable value to face food productions shifts related to periods of drought or floods (Guáqueta-Solórzano & Postigo, 2022). Self-sufficiency can thus be considered another important conservation practice (Zalabata, 2006). Traditional ecological knowledge and practices are also fundamental for dry forest conservation (Barros, 2020; CIT, 2020a).

However, what is interesting to note is not only Arhuacos' environmental practices, but the reliance of such practices on a specific cultural and cosmological framework (Rodríguez-Navarro, 2001). Indeed, framing them as "environmental practices" appears even misleading, since the cultural aspect is inherent to them and prominent in shaping them. Arhacos' practices are better understood as the material expression of the "Law of the Mother", which is "a complex code of rules that regulates human behavior in harmony with plant and animal cycles, astral movements, climatic phenomena, and patterns of transhumance in the sacred geography of the massif" (Rodríguez-Navarro 2000, p. 456). The ecological behaviours resulting from the application of the codes contained in the Law of the Mother have permitted the survival and adaptation of the Indigenous groups in the Sierra Nevada, limited the use of natural resources and assure biodiversity conservation (Rodríguez-Navarro, 2015). As expressed by Ulloa (2011):

> [T]heir concrete environmental practices arise 'naturally' from the synthesis of cultural strategies and the environment[.] […] Their territoriality reveals an ancestral relationship that inspires them to insist on the integrated management of all lands in order to conserve them both culturally and environmentally. (p. 85)

Indeed, the ecological knowledge and practices, belonging not only to the Arhuaco people, but to all the four groups inhabiting the Sierra Nevada de Santa Marta, are considered a milestone in the conservation and protection of such a fragile and unique territory. However, Indigenous efforts are

constantly counterbalanced by the negative influence of external actors and activities. Indeed, recent research identified some of the major problems destabilising the ecological balance of the region. They encompass mining projects and their related pollution, inadequate water management practices, deforestation, improper use of pesticides and fertilizers, unsustainable agricultural practices, transportation routes, tourism and ecotourism, urbanization, waste generation, and natural events influenced by human activities, notably forest fires, glacier loss, and erosion. Moreover, territorial conflicts and climate change amplify human impacts across the Sierra Nevada. All of these factors contribute to a decline in ecosystem services, water scarcity, loss of biodiversity, and territorial encroachment, resulting in various challenges that undermine the social fabric of the ecoregion, including food and water insecurity, health issues, displacement, loss of autonomy, and erosion of traditional knowledge. In the face of all the negative impacts resulting from external pressure, the Indigenous practices, grounded in their cosmovision, appear even more valuable and fundamental in the conservation of the territory (Duran-Izquierdo & Olívero-Verbel, 2021). Indeed, according to Rodríguez-Navarro (2000), "[t]he history of the indigenous occupation of the Sierra serves as an example of sustainability. […] The indigenous adaptive model contains invaluable knowledge for the conservation of biodiversity in the Sierra and elsewhere" (p. 455). The irreplaceable role played by the Arhuacos, together with the other Indigenous inhabitants of the Sierra Nevada, for the preservation of their territory is widely recognised, not only at a national, but also at an international level (Cancilleria Gobierno de Colombia, 2022; Ebus, 2017; CIT, n.d.; Rodríguez-Navarro, 2000; UNESCO, 2023). Yet, as it has been already stated, the relevant characteristic of these conservation practices is that they are incorporated in and dependent on a wider cosmovision and social codes, which guides them. Ultimately, the conservation of the territory appears inextricably linked to the Indigenous ecocentric cosmology and cultural framework. Resorting once more to Reichel-Dolmatoff's (1976) suggestion, cosmology can then be appreciated as a means to preserve the ecological balance.

5. Conclusion: the importance of the cultural framework, the need for a cultural ecological transition

The Indigenous Ecological Knowledge paradigm proposed by Berkes outlines how Indigenous environmental practices are inextricably linked to their cosmology, cultural paradigm and social rules. Following this stance, the preservation of an ecological balance resulting from the interaction between society and its living environment appears to be strictly dependent on the existence of social codes, strong environmental ethics, cultural values such as that of humility, reciprocity and care, and an

ecocentric worldview. Reichel-Dolmatoff's argument follows the same lines: he frames Indigenous cosmology as a way to preserve ecological balance.

This framework was useful to shape my ethnographic account of the Arhuaco community of Bunkwimake, in the Sierra Nevada de Santa Marta, the *heart of the world*, as its inhabitants refer to it. Through my own lived experience, which comprised informal conversations and observant participation, I could gather a partial understanding of the Arhuaco cosmology and cultural values, which was then complemented by bibliographic research, focused mainly on documents produced by the organization formally representing them, i.e. Tairona Indigenous Confederation. This provided me, on one hand, with a more comprehensive understanding of the Arhuaco cosmology, in their own terms; on the other hand, bibliographic research was useful to showcase the recognition of the effectiveness of their conservation strategies.

What results from this analysis is that Arhuacos' land management relies on ecological practices that are primordial in preserving environmental balance, biodiversity and to avoid natural resources depletion, thus guaranteeing people's self-sufficiency and survival. Not only are these practices codified in the "Law of the Mother", a complex set of conducts regulating human-environment interaction; they are also embedded in an ecocentric cosmological framework, where nature and all of its components are given the same value as human beings, and where the function of each element is recognized for the well-being of the whole. It is a worldview where humans consider themselves as interconnected and interdependent with respect to nature, which is treated with sense of responsibility and care. Ecological practices are also inextricably linked to cultural values, such as that of frugality, or the recognition of a sense of limit. Furthermore, the sacredness of certain species or sites, which mirrors their vital function at an ecosystem level, fosters their protection.

Shifting the attention, by zooming out from the Sierra Nevada de Santa Marta to encompass the whole planet, renders evident the profound implications of what has been outlined so far. On a planetary level, people are experiencing an unprecedented ecological breakdown, determined by a social, political and economic system which has disrupted the environmental balance that had so far sustained life. However, as stated in the first chapter, the roots of the crisis do not lie in a general and neutral "humanity", but in a specific economic, political system, and, more importantly, in the cultural, epistemological, and ontological paradigm that sustains it. Following this reasoning, it has been argued that an ecological transition should be grounded not only on a technological shift, but first and foremost on a cultural transformation, implying an alternative cultural paradigm with

ecological principles at its core, such as those of interdependence/interconnectedness, relationality, ecocentrism, and respect of limits. Attending to the Arhuaco cosmovision, cultural values and ecological practices is useful precisely for this reason. By stating this, I am not suggesting that *their* cosmovision and cultural paradigm figures as *the* right formula, and that it should therefore be upscaled and applied on a planetary level. What I am arguing, instead, is that Arhuaco's case proves the importance of the cultural paradigm in determining an ecological approach to reality. It is, therefore, yet another proof of the fact that the ecological transition needed, at a global level, transcends a merely technological shift and encompasses the cultural realm as well. Globally, Indigenous ecological knowledge systems have demonstrated that the preservation of ecological balance is grounded in an ecocentric worldview, and the case of the Arhuacos discussed in this chapter presents no exception in this regard.

Figure 5. Diana's house. Photo taken by the author. (July 10, 2023).

Chapter 4: The limits of a technological energy transition: wind parks' impacts over Wayuu territories in La Guajira, Colombia

In the previous chapters, the eco-climatic crisis has been defined as a cultural, social, and political dilemma, whose roots can be traced both to Western modern socio-political system and cultural paradigm. Consequently, the ecological transition has been reconceptualised not only as a technological shift, but as a radical cultural and social transformation, aiming at integrating principles of ecology and eco-social justice. It has also been argued that Indigenous people represent an important point of reference, in this sense. Indeed, the analysis has encompassed the Indigenous movement in Colombia, exposing how its political, cultural and ontological claims mirror those inherent to such conceptualisation of an ecological transition, i.e. advocating for a structural, political, and cultural change and a shift towards an ecocentric and ecological model. The connection between the cultural framework and the related ecological practices was dealt with in the third chapter. Arhuaco cosmology, cultural framework and social norms are indeed fundamentally linked to their ecological practices, which allow for the maintenance of an ecological balance in the territory. Such case-study pointed at the necessity to consider the ecological transition in wider terms, encompassing the cultural side as well.

If, on one hand, it is crucial to emphasise the connection between an ecological attitude and the cultural framework within which it emerges and, therefore, the need to envision the ecological transition as a cultural transition as well, on the other hand, it is equally important to highlight the limits and shortcomings of an ecological transition solely focused on the technological side. This is the object of this chapter, which centres on the wind park projects in the Indigenous Wayuu territories of La Guajira region, in the North-East of Colombia. The expansion of wind parks, along with other renewable energy infrastructures, is deemed fundamental to achieve an energy transition; hence, they are considered beneficial for contrasting the present climate crisis. However, when one attends to such projects with a critical eye, the apparent positive outcomes are accompanied by negative implications, which are instead easily dismissed, especially when they concern historically marginalised groups, such as Indigenous people. For this reason, the aim of the chapter is to articulate the negative impacts of the wind park projects as they are perceived by the local Indigenous population, namely the Wayuus. This focus is particularly relevant, since adverse effects linked to renewable energy projects are frequently overlooked in light of the advantages commonly attributed to a green transition.

The choice of this specific case study is thus significant for two reasons. On one hand, it scrutinizes the impacts generated by one of the projects that are considered at the core of the ecological transition, as it is conceived in the strictly technological sense – specifically, wind parks for the creation of clear energy. On the other hand, the case study involves wind park projects developed in Indigenous territories, thereby highlighting the risk of re-enacting colonial and extractivist dynamics with respect to the local Indigenous population. As one last point, the choice of the case study was determined also by my positionality and country of origin, that is Italy. One of the principal companies involved in the constructions of wind park is indeed Italian, and therefore it was deemed pertinent to give particular attention to this aspect.

The first time I encountered the issue of the conflicts related to wind park projects in La Guajira it was by accident. I was in Bogotá, reading an online newspaper, and a report about socio-environmental conflicts in the country had just been published by the research centre Indepaz. When I consulted it and realised that one of the disputes was related to wind energy in Indigenous territories, I decided to learn more on the matter. Therefore, I contacted one of the researchers working in Indepaz, Joanna Barney. After sharing with her my interest in undertaking fieldwork in the region, she enthusiastically gave me the contact of the leader of one of the local Indigenous associations, which was engaged in human rights protection with respect to the Indigenous Wayuu inhabitants of the area. This first contact was key to start my research. However, once I got to Riohacha, the capital of the department, I also undertook an online research, which led me to discover other Indigenous organizations active in the region. I could thus obtain additional contacts and interviews.

The methodology adopted for this chapter is that of qualitative research, combining participant observation and informal conversations during fieldwork, semi-structured interviews and literature review. The data were collected over a 17-day period, spanning from July 20, 2023, to August 5, 2023, predominantly in the middle and upper parts of the La Guajira region, focusing on the cities of Riohacha, Uribia, and Maicao, as well as their surroundings. Throughout this timeframe, 15 semi-structured interviews were conducted, most of which were recorded, with the consent of the interviewees. Supplementary data were gathered informally through spontaneous conversations with residents, particularly in coastal fishing communities. During the fieldwork, opportunities arose to accompany local leaders during community meetings, serving as another valuable source of information recorded as field notes. The selection of interviewees followed a combined approach involving the snowball method (Mikkelsen, 2005) and purposive sampling (Bryman, 2012). While one contact led to others, the inclusion of new informants was consistently evaluated based on the

contribution's validity to the study. Relevance and diversity were the two criteria applied in the sample selection, resulting in a heterogeneous group comprising 3 leaders of local Indigenous organizations, 4 members of displaced families, 2 environmental engineers, 5 community leaders or authorities, one project advisor, one university professor, one *palabrero* (a traditional judiciary figure in Wayuu legal order), and 5 residents of the coastal area. The diversity of the sample is deemed crucial for the comprehensiveness and validity of the research. For what concerns language, all interviews were conducted in Spanish, with subsequent translations for the analysis. The data collected through semi-structured interviews, informal conversations, and participant observation were subsequently transcribed and examined using coding and thematic analysis (Bryman, 2012). Additionally, a literature review was crucial for triangulation, complementing the field information and establishing a theoretical framework for this study.

The chapter is structured into five sections. The first one introduces the theoretical framework underlying this work. The second part offers the reader a geo-historical and social context of the region where the research was conducted, emphasizing its extractive history, and then providing an overview of the wind park projects in the area. In the third chapter, the impacts of the wind parks, as perceived from an Indigenous perspective, are discussed. Finally, the fourth section serves as a conclusion.

1. Theoretical framework

As previously outlined, one of the most pressing issues associated with the ecological and climate crisis is the increase in greenhouse gas emissions and subsequent global warming (IPCC, 2023). Consequently, a primary focus of the ongoing ecological transition is the reduction of these emissions by transitioning from an energy system dependent on oil, coal, and gas to a model centred on renewable energies, such as wind and solar (IEA, 2023). Despite its crucial importance, reliance on this model entails shortcomings that need consideration.

As highlighted by Grossmann and other scholars (2021), solely endorsing technological solutions risks fostering a sense of technological optimism, which, in turn, obscures the social, economic, and political aspects of the problem or offers mere technological fixes for them. Indeed, an ecological transition conceived solely as an energy transition fails to challenge the neoliberal paradigm in which it is embedded and overlooks the unrecoverable costs, as asserted by Seibert (2021). Apart from neglecting to place the climate crisis within the broader context of ecological planetary havoc, this

approach also evades directly addressing the issue of social justice. In fact, not only does existing social inequality persist under this paradigm, but new social vulnerabilities emerge, particularly among historically oppressed populations, such as Indigenous communities (Grossmann et al., 2021; Seibert, 2021). Velasco-Herrejón et al. (2022) describe the development of renewable energy infrastructures in the following terms:

> While this process is framed as a positive mitigation strategy necessary to prevent catastrophic climate change, it can often simultaneously endanger livelihoods, violate human rights or impose additional hardships on communities that are already struggling to adapt to climate change (Avila, 2018; Dunlap, 2019; Marino & Ribot, 2012). According to some authors, renewable energy facilities can therefore renew historical processes of accumulation by dispossession and colonialism (Normann, 2020) (p. 3).

All of this considered, it appears of crucial importance to adopt a critical approach at the time of analysing a renewable energy project in Indigenous territories. With this aim, this section resorts to three theoretical frameworks: just transition, Indigenous environmental justice, and green extractivism/colonialism.

1.1 Just transition

The term "just transition" was coined in the 1970s within the North American labour movement in the context of the environmental transition that was starting to take place. The underpinning idea behind this concept is that of overcoming the job-environment divide, by striving to protect the labour interests of the workers directly involved in those sectors of the economy that would be negatively affected by an ecological transition (Stevis & Felli, 2016). However, more recently the scope of this term has widened as to encompass a more general notion of justice and equity with respect to the energy and ecological transition. In essence, embracing a just transition framework in the management of ecological transition processes goes beyond just evaluating the positive outcomes related to energy efficiency or reduced greenhouse gas emissions. It entails ensuring that the transition is fair and equitable for all stakeholders involved, irrespective of the inherently positive and necessary nature of the process.

Scholars argue that a just transition implies placing social justice at the core of any effort towards sustainability (Grossman et al, 2021). As already mentioned, when this approach originated, the idea

of justice was mainly applied to labour concerns and claims, figuring as a central part of labour environmentalism (Stevis & Felli, 2016). Today, the concept has widened and is applied to analyse and consider various dimensions of justice within the ecological transition. Newell (2013), for instance, frames a just transition as one that is capable of "ensuring that existing environmental inequalities in terms of exposure to ill-health and localised degradation are not reproduced or exacerbated, while aiming to alleviate a global environmental threat such as climate change" (p. 133). In his view, a just transition must ensure equity and justice in terms of energy in a twofold sense: on one hand, to people that lack energy access and live in energy poverty; on the other hand, for those whose livelihoods depend on fossil fuel economy (Newell, 2013). Other scholars focus, instead, on a fair distribution of goods and bads in the restructuring of the energy infrastructure, while also emphasising the need to adopt an inclusive approach when it comes to decision-making processes with respect to the energy issue (Sovacool et al, 2017). Broadly speaking, a just transition can extend to define a more substantial paradigmatic change in terms of economic, political, and social model, advocating for the overcoming of the capitalist and growthist economy (Stevis & Felli, 2016).

Although there is no doubt about the necessity of an ecological and energy transition, it is also equally important to ensure that this is undertaken in an equitable and just manner. This is what the just transition framework points at. It becomes even more urgent to adopt such a framework when considering renewable energy projects, whereby the benefits of a clean energy risk to conceal or dismiss the negative impacts produced. Therefore, a just transition focus is adopted in this work, in order to analyse the wind park projects in the La Guajira region and their impacts on local, Indigenous population.

1.2 (Indigenous) Environmental Justice

While the "just transition" framework is useful to emphasise the need to consider the question of justice within the ecological and energetic transition, it does not make explicit what "justice" means. To complement this point and provide additional analytical tools, an environmental justice framework is then adopted.

The environmental justice (EJ) framework is a theoretical tool seeking to analyse environmental struggles. In doing so, it questions both the use of environmental resources, the distribution of benefits and negative impacts deriving from such use, and the decision-making process underlying it. According to Scott (2014), environmental justice can be defined as "a social movement, and a

theoretical lens, that is focussed on fairness in the distribution of environmental benefits and burdens, and in the processes that determine those distributions. That is, it is concerned with both the 'fair treatment' and the 'significant involvement' of poor, racialized and indigenous communities in environmental policy and natural resource development decisions" (p. 3). The scholarship on environmental justice underscores that the negative impacts linked to environmental exploitation are usually not equally distributed among social classes and members; instead, the poorest and most marginalised communities tend to bear most of the negative outputs, while having little access to the advantages (Mohai et al., 2009).

As anticipated in the first chapter, environmental justice as a concept was developed in the 1980s in the United States, when a social movement led by poor communities of colour started to oppose the unequal distribution of environmental harm, in particular in relation to the concentration of polluting industries in the lower socio-economic neighbourhoods (Scott, 2014). However, today the scope of adoption of such framework has widened as to encompass both inter- and intra-national struggles, especially when it comes to Global North and Global South disputes (Hassler, 2015; Urkidi & Walter, 2011). Climate change is the most blatant example, in this sense (Schlosberg & Collins, 2014). Scholars in the field have also approached issues related to trade agreements and transfer of waste through environmental justice lenses (Powell, 2006; Walker, 2009). Additionally, Martinez-Alier (2012) suggests considering environmental justice as a fruitful contribution in the debate around degrowth.

As it has been pointed out, the environmental justice framework appears to be relevant and useful; indeed, it is employed to describe a plethora of varied and heterogeneous cases. However, since the notion of justice is not self-evident, but rather "contested", in environmental matters as elsewhere (Martin et al., 2013, p. 122), authors have identified more specific characteristics defining the concept of environmental justice. In this sense, environmental justice is composed by three interrelated elements: distributive, procedural and recognition justice (Hassler, 2015; Martin, 2013; Parsons et al, 2021; Schlosberg, 2004; Urkidi & Walter, 2011).

1.2.1 Distributive justice

In simple terms, distributive justice refers to "who gets what from the environment" (Walker, 2009, p. 359) as a result of a decision-making process (Hillman, 2004). This involves recognising that any project, whether environmental, infrastructural, economic, etc., encompasses a dual aspect: benefits

for some parties and burdens for others. Distributive justice aims to highlight this double standard with the ultimate goal of overcoming it. In the words of Schlosberg (2014), ensuring distributive justice would imply a "fair process of the distribution of goods and benefits" derived from environmental projects (p. 518). A distributive justice approach also highlights the unequal distribution of environmental hazards and the spatial location of harmful or dangerous activities in correspondence to certain disadvantaged communities (Parsons et al., 2021).

1.2.2 Procedural justice

The distribution of harms and benefits related to an environmental project depends on the decision-making processes leading to such outputs. Consequently, the second aspect of the environmental justice framework, i.e. procedural justice, is concerned with the way such decisions are made. It considers the participants involved, the principles that are mobilised to make specific claims, both institutional and informal mechanisms to ensure (or limit) public participation and the possibility to influence the decision-making process (Chenoweth et al., 2002; Conner, 2003; Hassler 2015; Hillman, 2004; Martin, 2013). In order words, procedural justice postulates the need to include the communities that will be affected by a specific project in the decision-making process regarding the project itself (Parsons et al, 2021).

A fundamental aspect of procedural justice is the availability of knowledge and information. According to Hillman (2004), it is fundamental that people are provided with clear, transparent information about a project that could produce social or environmental harm. It is equally important to bridge possible expertise gaps in order to avoid a power imbalance among the stakeholders, which would benefit those with a higher and more profound knowledge on the matter. Therefore, although it is not explicitly mentioned in the literature with relation to environmental justice, for operational reasons this work expands the notion of "procedural justice" by including the notion of "cognitive justice", which can be defined as the "right to know" and the right to choose about one's destiny (Iovino, 2016, p. 61).

1.2.3 Recognition justice

Distributive justice pertains to the allocation of benefits and drawbacks among involved parties in the context of an environmental project. Procedural justice ensures that all parties have the right to be consulted and actively participate in the decision-making process, with special attention given to the

necessity of providing all sides with transparent information and appropriate intellectual tools that enable them to understand the information correctly and make informed decision upon it – that is, cognitive justice. However, when multiple actors are involved in a project, it frequently happens that not only material and cognitive dimensions clash, but also the cultural and cosmological ones. Consequently, the third aspect of the environmental justice framework corresponds to the notion of "recognition justice".

Recognition justice implies taking into account the differences in the cultural values and worldviews embodied by the stakeholders involved in an environmental project. Indeed, some groups or communities could present a culturally specific notion of what constitutes a just procedure, and this divergence should be duly acknowledged (Martin, 2013). Recognition justice involves not only acknowledging such differences but also recognizing which cultural paradigm is being favoured in the process. This is done to address power disparities and ensure equitable treatment for all the diverse participating worldviews (Hassler, 2015, Parsons et al, 2021, Urkidi & Walter, 2011).

Attending to recognition justice is of particular significance in environmental conflicts that involve Indigenous groups. Scholars emphasize that Indigenous participation in environmental disputes frequently ends up in breaching Indigenous rights on their territories, not only on a material base, but also on a cultural and cosmological one. Indeed, companies undertaking extractivist projects tend to overlook the cultural significance that specific sites embody for Indigenous people, as well as ignoring the culturally bound relationship connecting a specific community to their territory (Amerasinghe et al, 2008; Baker & McLelland, 2003; Hassler, 2015; Schlosberg, 2004, Urkidi & Walter, 2011; Whiteman, 2009).

1.2.4 Expanding the framework: from Environmental Justice to Indigenous Environmental Justice

The recognition justice aspect is surely important; however, it has also been subject to criticisms. Some authors argue that, framed in these terms, recognition justice risks to become a "top-down" strategy that seeks to reconcile Indigenous rights, identities, and cosmovisions with the neoliberal State. In other words, when the State holds the authority to determine whether to grant "recognition" to Indigenous or subaltern cultures and cosmologies, it perpetuates the same colonial and unequal power dynamics that are meant to be avoided (Parsons et al, 2021). The very notion of

"multiculturalism" has been criticised, in this sense, since it is considered as yet another tool to reinforce the neoliberal State and the interests of big corporations (Hale, 2004; Santamaria, 2013).

A second critique that can be formulated with respect to the notion of recognition justice is that it risks simplifying ontological differences by framing them as cultural ones. Again, the work of Escobar (2014) is illuminating to elucidate this aspect. As it was anticipated in the first chapter, Escobar is one of the main proponents of political ontology, a theoretical realm which defines ontological matters as political, as well as considering politics as a conflict among distinctive ontologies. By applying a political ontology approach, environmental struggles might be reconfigured as ontological struggles too, in which different, often contrasting worldviews are juxtaposed and contrast with one another. In this context, it is of particular importance to stress the ontological dimensions of this struggle, since relegating it to the cultural realm can be limiting. Framing the existing differences merely as cultural would suggest that, while cultural values and norms may vary among specific people and places, the comprehension of reality is uniform and unambiguously supplied by science. By dividing science and culture and granting to the first one the privilege of being the only way to explain reality, cultural differences remain relegated to matters of perceptions. Such an approach does not differ much to the one that relegates Indigenous and sub-altern cosmologies as inferior. Instead, framing cultural differences as ontological ones places equal value on them, thus overcoming the power imbalance that usually accompanies the interaction between Indigenous and non-Indigenous actors. This is particularly true in cases of environmental projects. All of this considered, it is fundamental to move beyond the notion of "recognition justice" as a top-down process of cultural recognition; instead, as Parsons et al. (2021) suggest, it is important to explore the "recognition from below" possibilities as comprised of "new ontologies and legal orders" (p. 51). Therefore, while for operational reasons this work adopts the concept of recognition justice, it frames it in terms of ontological, rather than cultural difference.

The importance of considering Indigenous ontological differences in the environmental justice struggles was enshrined in the formulation of the Indigenous environmental justice (IEJ) framework. Indeed, while all IEJ cases fall withing the EJ framework, the reverse in not necessarily true. According to some scholars, what makes Indigenous environmental justice struggles specific are three inherent characteristics. First, Indigenous people, who became ethnic monitories after the colonial invasion, are also actual governments, with their own legal and political structures co-existing with and within the State. Second, Indigenous identities are strongly linked to the attachment to their territories. And third, any environmental struggle concerning Indigenous people must be framed

within, and as part of, the "collective trauma" they experienced under colonialism (Parsons at al., 2021, p. 53; Jarrat-Snider & Nielsen, 2020).

Applying an IEJ framework involves placing Indigenous ontologies, epistemologies, and cosmologies as the focal point of the analysis. It also means to question and reconfigure the very idea of justice, as it is formulated within Western liberal epistemology (Parsons et al, 2021). In many cases, this results in an inclusion of the agency of non-human entities and the Earth itself and insists on the importance of relational duties between humans and non-humans (McGregor, 2018; McGregor et al., 2020). According to this framework, justice would imply the "fundamental capacity of indigenous communities to sustain the lives and livelihoods *they* value" (Schlosberg & Carruthers 2010, p. 31, *my emphasis*). In addition to giving precedence to other conceptualisations of justice, the IEJ framework is also relevant since it highlights that most cases of environmental injustice are rooted in Western epistemology and ontology, which is based on a strict nature/culture separation, in contrast with many Indigenous worldviews (Parsons et al, 2021; Todd, 2016; Whyte, 2018; Winter, 2020).

The IEJ framework presents itself as a fruitful possibility to overcome the limits and criticisms posed to the "recognition justice" aspect, representing a move from the latter "to embrace ontological and epistemological pluralism" (Parsons et al., 2010, p. 52). Applying such framework appears even more adequate, since the environmental struggle that is dealt with in this work involves Indigenous communities, namely the Wayuu people. For operational purposes, however, the conceptual categories that will be adopted are the ones presented in the EJ framework, i.e. distribution, procedure, and recognition justice. Nevertheless, it is important for the reader to consider that the concept of "recognition" is adopted in an extended way, one that reflects the insights emerging from an IEJ approach.

1.2.5 Socio-ecological justice

The final conceptual tool pertaining to the EJ is that of socio-ecological justice. Indeed, anthropocentrism is one of the inherent limits of this framework, since it focuses on justice *for* humans *within* the environment, rather than incorporating the ecological dimension as well, which means considering humans as just one more component of the ecosystem, interacting with non-human entities as well (Hassler, 2015; White, 2014). Although this work considers the categories provided by the EJ framework as a useful starting point, it also seeks to expand them as to encompass the socio-ecological dimension. For this reason, the case study is analysed as well according to the notion of

socio-ecological justice, that is about "recognising the right of human and non-human worlds to live and flourish together in their environments free from social and ecological destruction and degradation" (Yaka, 2018, p. 363).

1.3 Green extractivism/colonialism

As previously outlined, one of the main responses to the climate crisis is the shift towards an energy system based on renewable energies, such as solar and wind power. In spite of being considered "clean", thus inherently positive, the infrastructure and extraction processes linked to these alternative energy sources risk to re-enact unequal and exploitative power dynamics. These dynamics are more prone to going unnoticed as they are reinforced by the imperative of a clean energy transition. Academic interest in the mechanisms related to this specific form of extraction led to the formulation of "green extractivism" as a conceptual analytical tool. Verweijen and Dunlap (2021) define it as "forms of resource extraction linked to or justified by the 'green' economy'" (p. 5). Such extraction can take two forms: direct or indirect. Direct green extractivism refers to the direct extraction from renewable sources, being them solar, wind, hydrogeological power or biomass, and the consequent socio-environmental impacts, which span from contamination, socio-economic changes, wildlife distress, hydrological, climatic, and weather alterations. Indirect green extractivism, instead, is adopted to frame the extraction processes necessary in the production chain of the infrastructure needed for direct extraction (Verweijen & Dunlap, 2021). Scholars have brought attention to numerous instances of environmental injustice falling under the umbrella term of green extractivism, such as lithium extraction in Bolivia, Chile and Argentina, or water injustice issues in the Atacama desert of Chile (Jerez, 2021; Voskoboynik & Andreucci, 2021). According to Voskoboynik and Andreucci (2021):

> [G]reen extractivism represents a new phase in the complex relationship between mining and the environment, whereby extraction and valorisation of mineral resources is rendered not only compatible with 'sustainable development', but *necessary* to it and the possibility of a 'low carbon' future. (p. 802)

The notion of green extractivism is useful, since it highlights the inherent limits of an ecological transition solely based on a technological shift. On the contrary, it makes evident that, without questioning the extractivist paradigm, such transition does nothing but abiding to it, thus reinforcing historical oppressive dynamics among social classes, marginalised groups, and historically colonised

countries. Indeed, it is interesting to note that in some regions, such as La Guajira, projects of green, renewable energy coexist with oil infrastructure: both depending on the same extractivist logic, which reinforces structural inequalities. Green extractivist project are not only legitimised by the necessity of a green transition. Their impact is also hidden under the idea of neutral technological processes, which leave the social, environmental, and cultural implications unquestioned (Ulloa, 2021).

By following an extractive model which reinforces existing structural social inequalities, green extraction projects end up perpetrating a colonial dynamic as well. Indeed, another term adopted by scholars in this context is that of "green colonialism", which is used to describe how renewable energy projects breach the Indigenous rights over their territories in the name of a "green transition". That is the case of wind parks projects in the Sami territories in Norway (Kårtveit, 2021; Normann, 2021), or in the Zapotec communities in Mexico (Velasco-Herrejón et al., 2022). As Velasco-Herrejón et al. (2022) note, "[i]t is not an accident that Indigenous regions are the preferred locations for energy mega-projects" (p. 3). The notion of green colonialism exposes how the solutions proposed within the green transition tend to be partial or to benefit only the Global North, to the detriment of the Global South and of Indigenous territories (Dorn, 2022).

Analysed in these terms, Indigenous territories hosting green energy projects which overlook the rights of their inhabitants are transformed into "sacrifice zones". A sacrifice zone is a place where the negative environmental impacts are concentrated, for a greater, higher benefit, usually considered to be economic growth or "progress" (Houston 2012, p. 420). In the context of green extractivism/colonialism, sacrifice zones are reconfigured as those territories and people who bear the cost of a green transition, which is presented as a greater, common good. The choice of the territory is not casual, but it follows specific hierarchical ideas on people and places that are tacitly considered inferior, thus more suitable for receiving harming activities (De Souza, 2021; Klein, 2014), as is the case for Indigenous people. The notions of green extractivism, green colonialism and sacrifice zone are then particularly suitable at the time of analysing the wind park projects in the Indigenous territories of La Guajira.

2. Context

2.1 Geo-historical and social context

The wind park projects analysed in this chapter are located in the Wayuu territories in the department of La Guajira, which is a peninsula situated in the northernmost region of Colombia. Its name comes from the Indigenous word *Wayira*, which refers to the familiar ties among male members. The term itself comes from *waïru*, indicating the matrilinear degree of kinship (Ojeda Jayariyu, 2007). Once part of the Magdalena department, it became independent in 1911, when the *Comisaría Especial de La Guajira* was created. This was followed by the establishment of La Guajira department in 1964 (Ojeda Jayariyu, 2007). Today, it shares its eastern border with Venezuela, its southern border with the Cesar department, and its western border with the Magdalena department. Spanning a total area of 20,848 km^2 (1.8% of the nation's total), La Guajira boasts the longest stretch of marine coastline along the Caribbean Sea, measuring 403 km, and a land border of 249 km. It is comprised of 14 municipalities, 1 special district, 44 rural districts, 69 police inspections, and 21 Indigenous *resguardos*, which present numerous settlements inhabited by the Indigenous Wayuu people, commonly referred to as *rancherías* (Ministerio de Cultura, n.d.; Roys Garzón, 2020).

The administrative centre of La Guajira is Riohacha, designated as a Special, Touristic, and Cultural District by Law 1766 of 2015. The department is structurally divided into three primary regions—Upper Guajira, Middle Guajira, and Lower Guajira, delineated by its territorial configuration. Its physical landscape showcases a rich diversity of terrestrial and marine ecosystems, as a consequence of hosting all thermal floors of the intertropical zone and experiencing a temperature cycle averaging between 35°C to 40°C. Broadly speaking, the terrestrial biodiversity encompasses deserts, wetlands in mountainous areas, and dry tropical forests susceptible to aridity, featuring sparse vegetation and marked seasonality of rainfall (Roys Garzón, 2020).

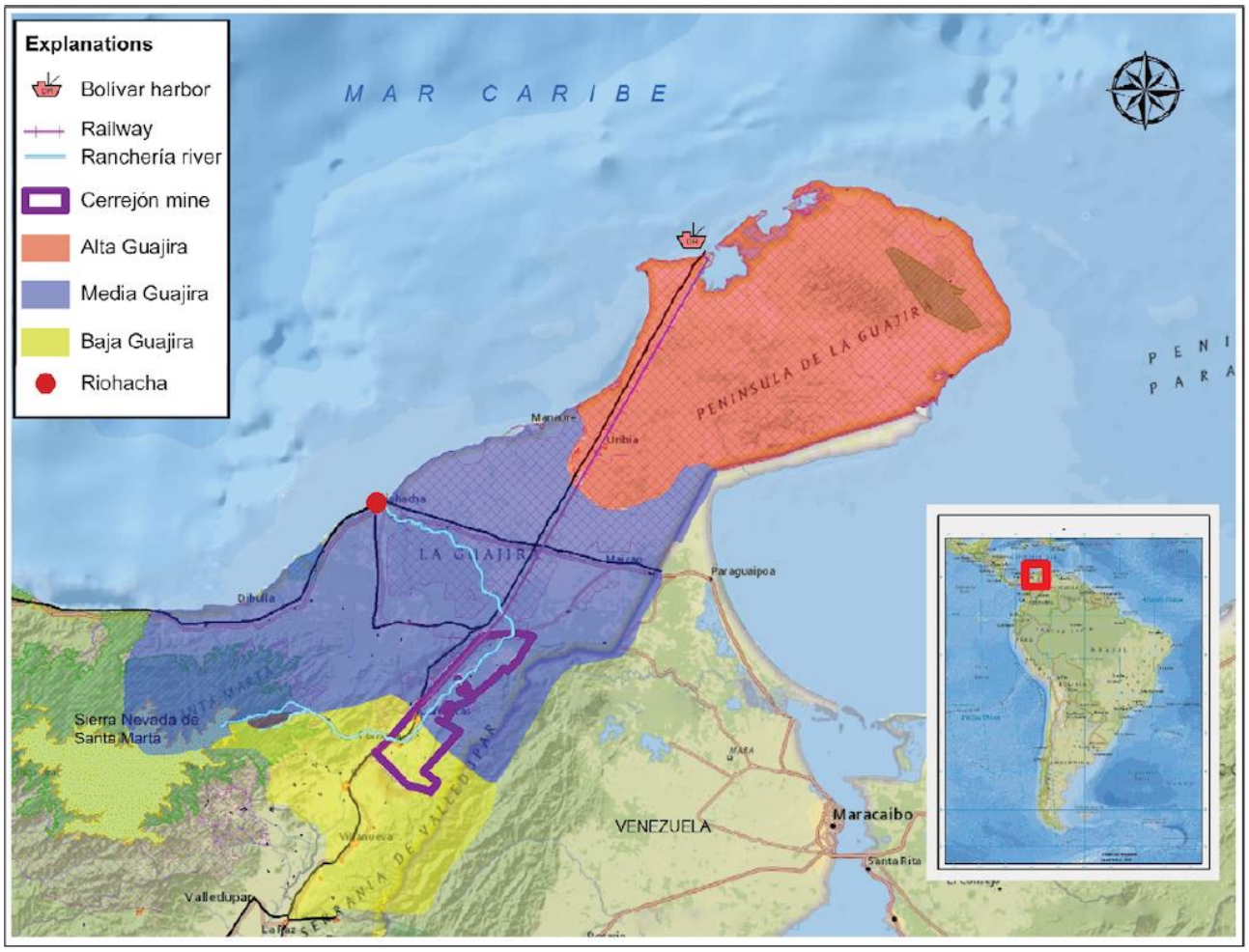

Figure 6. Map of La Guajira. Adapted from Avila & Torres Tovar (2014) as cited in Hassler (2015, p. 14).

The department of La Guajira has a population of 825 364 people, of which around 48 % are Indigenous, making it the Colombian department with the highest Indigenous concentration (DANE, 2019). The main Indigenous groups present in the territories are Wayuu (94,1 %), Wiwa (3,3 %), Kogui (1,7 %), Arhuacos, Zenú and Kankuamos (1%) (Roys Garzón, 2020).

The Wayuus are the most numerous Indigenous people inhabiting La Guajira department. Originally from the Amazon basin, they migrated to La Guajira in pre-Colombian times (Ojeda Jayariyu, 2007). Today, they count around 270 000 members, representing 48 % of the total population of the region (Roys Garzón, 2020; Ulloa, 2021). They share collective ownership over the territories recognized in 21 *resguardos* (Ministerio de Cultura, n.d.). Their social organization revolves around the *e'irukuu* (clanes), which can be defined as "uncoordinated groups of families" (Ojeda Jayariyu, 2007 p. 43, *my trans.*) following a matrilinear kinship structure. Indeed, the woman represents the family unity, but the authority within the family is given to the maternal uncle. Every clan is associated to an

animal, which is the ancestral totem, and to a surname (Ojeda Jayariyu, 2007; Ministerio de Cultura, n.d.). On an economic level, Wayuus' livelihoods rely mainly on pasturing and livestock activities. Living in a semi-arid, desertic area often forced them to mobilise in order to find water sources and grazing land for their animals. In addition, producing and selling handicrafts, like hammocks, bags, and bracelets, representing a vibrant expression of Wayuu's art and culture, is another form of economic gain (Hassler, 2015; Hernández, 2008).

2.2 History of extraction in La Guajira

The department of La Guajira is a site marked by striking contradictions, since the abundance of resources does not result in widespread well-being of the local population. The region is indeed rich in salt, oil, gas, and coal, rendering it a privileged location for resource extraction (González Posso & Barney, 2019; Hassler, 2015). Particularly telling, in this sense, is the case of coal. Its extraction process was initiated in 1983, with the establishment of one the biggest open-pit coal mine in the world, known as Cerrejón (Hassler, 2015; Ulloa, 2021). The department's economy is strongly linked to coal extraction processes, with 43 % of its GDP generated by mines exploitation (Roys Garzón, 2020). However, the prospects of economic growth and social development associated with such extractive economy are not reflected in the conditions of the local population. In fact, despite being the source of such an abundant economic resource, the department of La Guajira is also among the poorest in Colombia. Its poverty rate is double compared to the national figure, and the situation is even worse when considering extreme poverty rate, which covers 26,7 % of the local population, in contrast with the national figure of 7 % (Roys Garzón, 2020). Moreover, La Guajira is the third poorest department with respect to rural areas, and the second most unequal, with a Gini index of 0,552 (Roys Garzón, 2020).

One of the main problems experienced in La Guajira is related to access to health. More than 163 500 people lack sufficient health attention, with the Indigenous population being among the most affected. There is also a high rate of children mortality, especially due to malnutrition because of lack of economic gains and food security within Wayuu families. Access to water is another right that is not guaranteed in the region. According to the Housing, City and Territory Ministry, only 4 % of the rural population in La Guajira has access to drinkable water. The water infrastructure covers only the 26 % of the rural area, thus leaving approximately 342 000 persons without the possibility to access clean water. In addition, the education sector is particularly inadequate. The problems related to this area span from education coverage, low retention rates in the school system, poor educational

infrastructure, and a lack of support, proper working conditions, and adequate training for teachers (Roys Garzón, 2020).

The development of extraction projects, such as that of the Cerrejón coal mine, did not promote an improvement in the local people lives, especially in those of the Indigenous groups. In this sense, it is emblematic to consider that, although 43 % of the department GDP depends on coal extraction, only about 2 % of the local population is directly engaged in the process, thus gaining a direct economic benefit (Roys Garzón, 2020). On the contrary, the beginning and expansion of the extraction processes triggered even new socio-environmental conflicts. The mining of coal has indeed led to social and spatial segregation, environmental degradation, the seizure of communal resources, distressing environmental conditions, and a diminished sense of autonomy and self-determination for the Wayuu community, thus sparking social protest and resistance against the project (Ulloa 2021). According to Ulloa (2021):

> The proposals of economic development related to mining have not been reflected in local processes; instead, they have resulted in pollution, water scarcity, and territorial and environmental transformations. On the other hand, the expectations of economic development centered around extractive processes have been an illusion that has primarily benefited transnational capital. (p. 23)

All of this considered, it is possible to conclude that La Guajira region presents itself as a territory marked by a stark contradiction. On one hand, it hosts a vast amount of richness in terms of energetic resources, such as coal and gas, which have been extracted and exported in the past fifty years. On the other hand, the local population lives in degraded condition, and sees their rights to life, health, water, and education constantly undermined. The economic gains, derived from the extraction activity, do not end up benefitting the residents, which, in turn, only experience the negative impacts of those processes. Therefore, the region appears to be a sacrifice zone, where "the physical and mental health and the quality of life of human beings are compromised in the name of 'economic development' or 'progress' – but ultimately for the sake of capitalist interests" (De Souza 2020, p. 220). It is in this context, already marked by social inequality and injustice, that the wind parks projects have started to develop.

2.3 Wind parks projects in La Guajira

La Guajira region is not only rich in coal and gas. Its geographic setting makes it also the perfect spot for the production of wind and solar energy (González Posso & Barney, 2019). Its capacity for generating wind and solar photovoltaic energy reaches 15,000 MW, constituting 90% of Colombia's overall installed conventional energy generation capacity. On one hand, the heightened wind intensity in the Upper Guajira renders the subregion highly favourable for energy production. Wind speeds vary from 5 to 11 meters per second (m/s) consistently throughout the year, meeting the minimum threshold of 5 m/s required. On the other hand, with respect to solar energy, the radiation exceeds 60% of the global average (Roys Garzón, 2020).

According to the department plan for the development of La Guajira, the energetic development of the whole country depends on this region (Roys Garzón, 2020). La Guajira is thus set to become the "epicenter and primary electricity generation centre based on non-conventional renewable energy sources" (Roys Garzón, 2020, p. 90, *my trans.*). Following this approach to energy production, several wind parks projects have started to be planned in the department. The research centre Indepaz mapped a total of 57 parks, covering Middle and Upper Guajira, in correspondence with Wayuu territories (see map). Of all of them, 16 obtained the final authorisation to begin the construction, but the only one to have been completed is the Guajira 1 park (Barney 2023; Zapata Quinchía, 2022). Other three parks – Alpha, Beta[2] and Windpeshi – had started the construction process but were halted due to social problems in the territory[3]. The remaining 41 are still undergoing a process of feasibility study and social approval. Altogether, these projects would imply the installation of a total of 2833 wind turbines, thus reaching the production of 12,8 GW of energy. These projects are being implemented by 29 companies, which are connected to 17 parent companies. In this respect, it is interesting to note that only 5 of them are Colombian, while the vast majority is represented by multinational, foreign companies (Barney, 2023).

[2] En marcha Alpha y Beta, las eólicas más grandes del país. (2022, April 12). *Portafolio.* Retrieved February 9, 2024 from https://www.portafolio.co/economia/finanzas/en-marcha-alpha-y-beta-las-eolicas-mas-grandes-del-pais-564027.
[3] Colombia's Alpha, Beta wind farms facing delays. (2023, February 24). *Bnamericas.* Retrieved February 9, 2024 from https://www.bnamericas.com/en/news/colombias-alpha-beta-wind-farms-facing-delays.

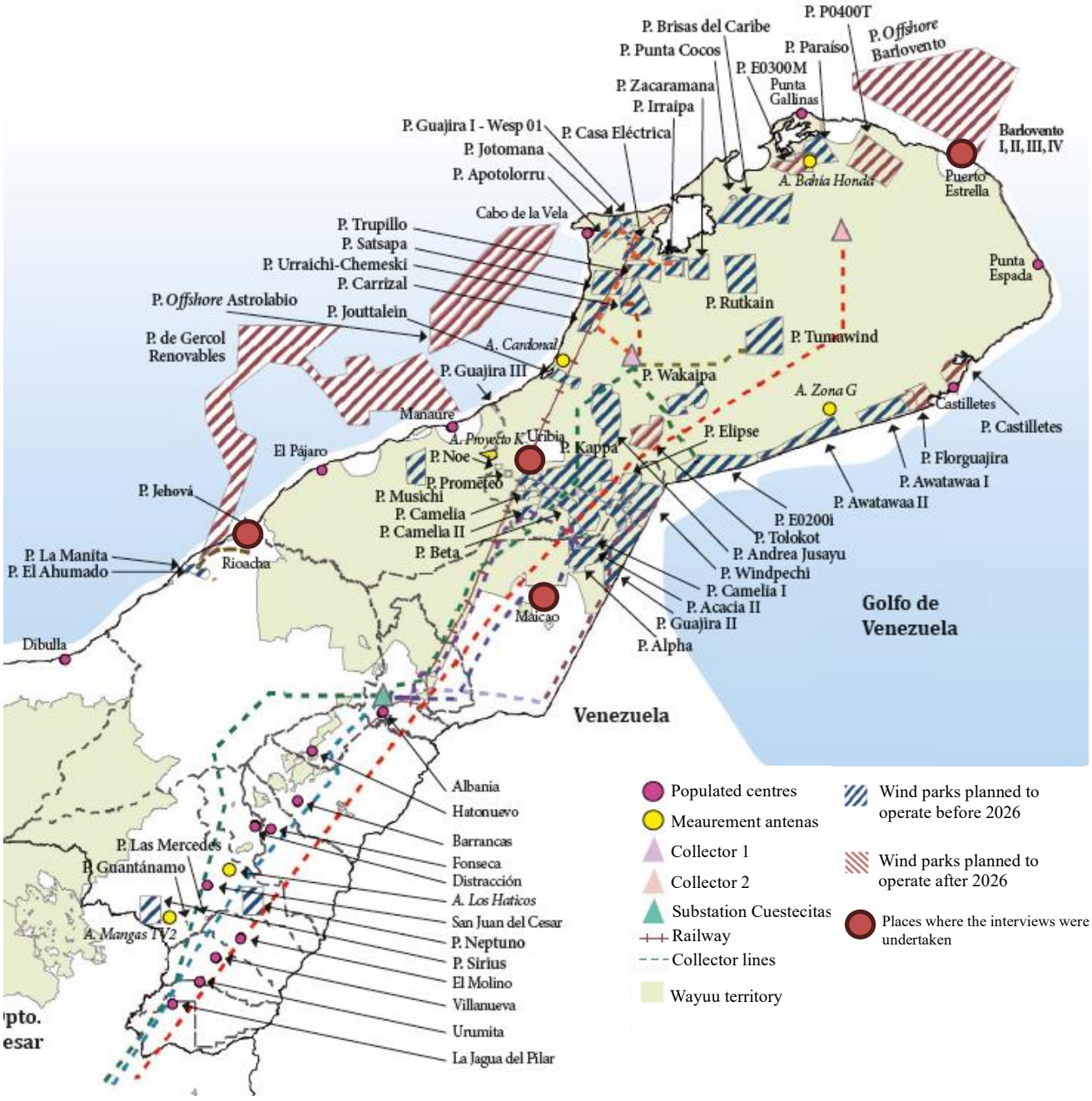

Figure 7. Map of wind park projects in La Guaiira. Adapted from Barney (2023, p. 56).

2.3.1 Enel and the Windpeshi park

One of the multinational, foreign companies operating in La Guajira is the Italian company Enel. In 2008, they established Enel Green Power, which works with more than 1200 renewable energies plants all around the world. They have projects (both in construction and completed) in 20 countries, thus producing a total amount of 60 GW of energy, with an infrastructure that includes solar, wind, hydroelectric and geothermic power (Enel Green Power, n.d.). In La Guajira, Enel (through its group

Enel Green Power) has planned 5 wind park projects: Windpeshi, Urraichi-Chemeski, Tumawind, Castilletes and Florguajira (Barney, 2023). The latter two, Castilletes and Florgajira, are planned to become operational after 2026, while the first three were supposed to be finalized before that date. According to Indepaz, the Urraichi park's operation date was set to be 28/02/2023; Windpeshi was supposed to start functioning on 31/03/2023; finally, Tumawind's start date was set to be 31/10/2024. However, at present, none of these parks has been completed (Barney, 2023; Quiroga Rubio, 2023).

Among the five projects, the Windpeshi park is the most advanced. Since 2017, Enel has conducted the consultation process (see "*Consulta previa* and related problems") with the communities involved in the project's influence area. After presenting the environmental impact assessment (EIA), in 2020 the company obtained the licence from the National Authority of Environmental Licences of Colombia (*Autoridad Nacional de Licencias Ambientales*, ANLA). According to the project, the park would imply the installation of 45 turbines, with an energy capacity of 200 MW (Barney, 2023). The legal permission obtained by the company, however, does not coincide with the social one. Wayuus lament several problems related to the construction of the park, which have generated social unrest, forcing the company to abandon the project (Quiroga Rubio, 2023). In the following section, these problems will be evaluated through the (I)EJ framework.

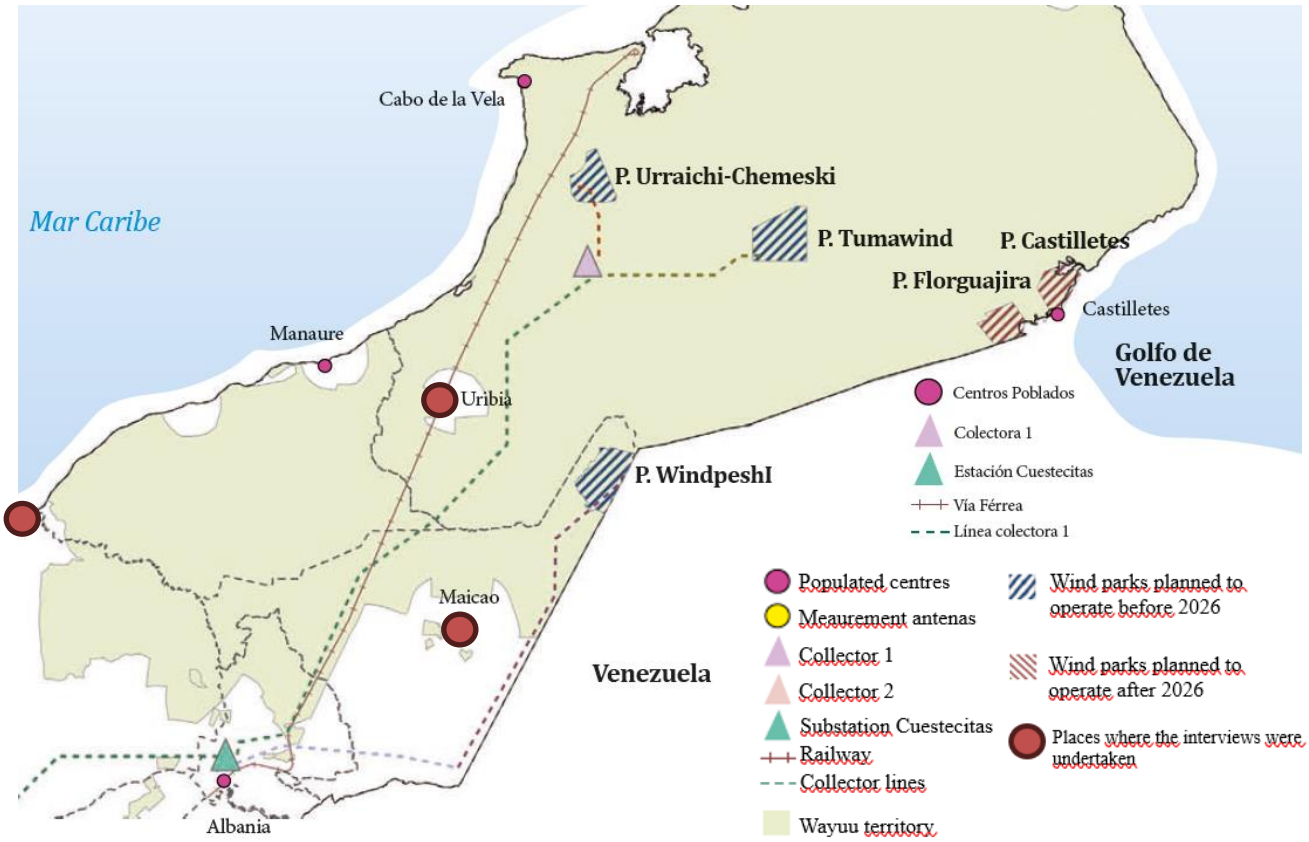

Figure 8. Map of Enel's wind park projects in La Guaiira. Adapted from Barney (2023, p. 103).

3. Impacts

This section aims at showcasing the impacts of the wind park projects as they are perceived by the local Wayuu population. Considering the heterogeneity of the types of informants consulted, the impacts presented are both general and site-specific. Indeed, some informants have cumulative experience with regards of several wind park projects in the region and could thus provide a more general overview of the impacts they present. Others, instead, could relate their experience with regards of a specific project, that is Enel's Windpeshi park. Both viewpoints are considered relevant and complement each other, and thus are included in the following analysis.

3.1 Distributive justice

From the information gathered through interviews with several informants from the Wayuu community, the wind park projects in La Guajira emerge as a case of environmental injustice. Indeed, the first pillar of the EJ framework, that is distributive justice, is not respected. Distributive justice

refers to the way harms and goods are shared among the parties involved in the project. In this case, according to the community members, the benefits go in favour of the private companies or the State, while the inhabitants of the territory are exposed to several detrimental effects. This is the reason why many of these projects have sparked protests and resistance from the communities:

> I sometimes say, why do we have to resort to a strike[4] for them to give us things that they can actually give us without us having to do it? […] They don't ask us why we go on strikes. We go on strikes because they don't give us what we really see, what is in our territory. Who experiences the negative impacts, who suffers is us, the people from there, not those from outside. The people from outside don't suffer; they say they earn their money, and the rest can go to hell because they are not affected, because they are not from there, they don't experience the negative impacts, that's why they are not affected. (Gladys Ipuana, leader of the Pololima community, semi-structured interview, 29/07/23)

From the analysis of the material collected through this research, the negative impacts identified by the members of the Wayuu communities can be divided into two types, which are nevertheless inextricably intertwined: social and environmental.

3.1.2 Social impacts

One of the several negative impacts associated with the arrival of the wind park projects is that they ignited social conflicts, which were not present before the arrival of the companies. Those companies are indeed considered responsible for altering and breaking the social fabric of the Wayuu society. Although it is true that Wayuus are socially organised into different *e'irukuu* (clanes), there is a general sense of belonging which foregrounds individual ties to the Wayuu nation. As Rusbeld, Wayuu professor and facilitator of Indigenous organizational processes, explained to me: "all Wayuus are family, as the Wayuus originally said, *capucha y rachi*, that is, we are all family" (semi-structured interview, 30/07/23).

During my field-work experience in the Wayuu territory, I had the chance to directly experience the strength of the social and family bonds which characterises this society. I was travelling with Rigo, a Wayuu fisherman working in the Northern coast of the Guajira region. His occupation was collecting

[4] In this context, "strike" is translated from *paro* and refers to the act of blocking the road to prevent access to the construction site, or to paralyse the mobility in the region thus generating pressure on both the companies and the government.

fish, to then sell it to the local market of Uribia, the capital of the Wayuu territory. I had casually met Rigo in the central market of Uribia and, since I was interested in knowing the coastal part of the region, he had offered to accompany me. We had not made many previous arrangements, and left for a four days journey two days after our first meeting. He was planning to sleep in *rancherías* (the traditional Wayuu dwellings) belonging to his family members or friends all along the road. And indeed, without needing to make arrangements long before our arrival, we were always received with the greatest warmth, openness and care. At every house we would arrive, we were offered a seat first, then a drink, a meal, while a traditional *chinchorro* (hammoc) was prepared in order for us to sleep. Rigo explained to me that it was as a tacit rule, among them: everyone knew that if visitors arrived, they would have the duty to receive them. This would mean, in turn, that at any time they would be in need, they knew they could count on the help of someone from the community.

This social support network is also exemplified by the Wayuu offence and compensation system. At one point during our journey, Rigo explained to me that when someone causes harm to another member of the community, they then expect to be "bought off", which means that someone from the family of the offended person is expected to visit the house of the guilty one in order to ask for a compensation for the damage caused. According to him, this is a way to maintain social equilibrium among Wayuu families. He also added that, in case an offence happens, it is always better to receive the visit of the family and to be asked to pay the compensation; on the contrary, if that does not happen, it implies that the offended party could take revenge in other ways, which would be similar to living under constant threat. On the other hand, with the payment of this compensation (in the form of goods, such as animals or food), one is sure that the offence has been settled, and that peace and harmony is preserved.

Even more interesting and telling is the fact that, when a dispute arises, the most important thing does not appear to be identifying who the real culprit is, but rather to heal and restore the broken social bond. Again, Rigo told me about a time when he was hanging out with a friend who wanted to use his motorbike. In doing so, he fell, but since the motorbike belonged to Rigo, the latter was held responsible, and was then charged with a compensation to pay to his companion. When he recalled the story, I was baffled and inquired: "In this case, did you not mind paying, even if you were not really responsible? What happens when you don't think you're culpable for the offence you're being held responsible for?". To my doubts, Rigo replied that for them (the Wayuu people), more than proving who is right, it is important to maintain harmony among the communities. Therefore, they

always prefer to pay, also considering that a family that pays when charged acquires a good reputation and is well received by other families.

The importance of preserving social harmony is also testified by Wayuu justice system, which is not written, but oral, and is practiced by the *pütchipü'üi* (or *palabrero*, in Spanish), that is an "agent of social control for the different applications of justice" (Ojeda Jayariyu 2007, p. 47, *my trans.*). Whenever a conflict arises, Rigo explained, each one of the parties summons their *palabrero.* In virtue of their wisdom and experience, they have the role of sharing their opinion about the dispute. Although their sentence is not strictly prescriptive, their view is highly valued and thus taken into consideration in deciding how to solve the tension. However, what Rigo outlined is that the role of the *pütchipü'üi* is not that of demonstrating which party is right, but rather to help, with their mediating words, to heal the conflict.

Preserving harmony among families and nurturing a strong social fabric appears then to be a prominent feature that drives Wayuu collective existence. However, many Wayuus agree in perceiving that this situation of social harmony was disrupted by the arrival of wind park companies. Leyjill Hanna Gonzaléz Ipuana, member of the Wayuu community of Chimorrotchi and victim of territorial conflicts, affirms that "with the arrival of these parks, many things changed. Wars among families, discussions and territorial disputes started" (semi-structured interview, 23/07/23). The same view is shared by Rigo, authority of the Sawainalü community: "We are killing each other among ourselves. We have an internal conflict because of the wind parks. Their arrival has caused the disintegration of the same community. Brother against brother, territorial division…" (field notes during a community reunion, 24/07/23). The general view held by the people consulted for this research traces a direct connection between wind park projects and the presence of violence and social division in their territory.

> We are at risk, in this sense, in the form the first wind parks came, they created a menace in *e'irukuu*'s unity, in the territorial integration. (Rusbeld, semi-structured interview, 30/07/23)

> It is a concern, especially because this could generate situations that we, the Wayuus, will regret, especially this internal conflict that could lead to complex scenarios that could even generate tragic situations, tragedy within us as Wayuu people. (William, environmental engineer, semi-structured interview, 31/07/23)

> For us, alternative energies are something new, something that we are totally unaware of, something that today has brought about internal conflicts in the Indigenous communities. (Griselda Maria, authority of the Petsuapa community, semi-structured interview, 30/07/23)

Wind power companies are considered responsible for the territorial conflicts generated by the arrival of their projects. One of the underlying mechanisms that triggers conflicts in and among Wayuu families regards unfair distribution of monetary compensations. Indeed, in order to develop a project in Indigenous territories, companies have to discuss and provide an adequate compensation, either in form of money or by implementing services that would benefit the residents of the area[5] (González Posso & Barney, 2019). For the Windpeshi park, for instance, Enel had committed to provide the Wayuu communities with services related to health, education, and access to water (Enel Green Power, 2022). However, compensations typically come in form of cash, and these funds are not equally distributed among the families inhabiting a certain territory. This creates the basis for rise of the conflict:

> The great fear that the Wayúu people have is that these disputes between clans will affect the harmony of their people. Because brothers and sisters, cousins had good relations and were good friends when the project came along and began to bring compensations. They became enemies and today these families are disunited. […] When the companies come with their compensation, they divide our territory, they divide us and there are conflicts, that is to say, there are communities that do not want the public company to enter. Because it is dividing the territory, it is dividing the families. (José Quintero, mechanic engineer and university professor, expert in renewable energy projects in La Guajira, semi-structures interview, 29/07/23)

> For money they kill each other. (Royer Polo Ramos, project advisor for the municipality and for private companies in La Guajira, semi-structured interview, 30/07/23)

> What the companies were doing was to give them the strength to eliminate us. […] It is getting far for the same benefit that the company gives. If you see benefit, you have to eliminate me so

[5] Consulta previa: un derecho fundamental para conocer medidas legislativas, ¿cómo funciona? (2023, May 5). *Semana*. Retrieved February 9, 2024 from https://www.semana.com/economia/empresas/articulo/consulta-previa-un-derecho-fundamental-para-conocer-medidas-legislativas-como-funciona/202342/.

> that you still negotiate with them and this is what is happening. (Norbelis Suarez, victim of territorial conflict, semi-structured interview, 04/08/23).

The social conflicts arising in the territories due to the establishment of wind parks have had severe consequences for numerous Wayuu households, as reported by the interviewees. Entire families found themselves compelled to abandon their territory due to perceived life-threatening situations. Indeed, the violence stemming from the arrival of the wind park manifests in various forms, one of which involves threats directed at Wayuu residents who choose to oppose the projects. John Jairo Salinas Gonzales is the leader of the *Wayunaiki* association, based in Uribia. He works to provide education and food support to children in Indigenous communities that lack access to basic rights such as nutrition and water. He was sceptical about the implementation of new wind projects in Wayuu territories, since he had witnessed how they had already caused conflict in the region. However, when he attempted to challenge the companies' intentions, he faced threats and had to leave his territory to ensure his own safety.

> Sometimes you also take care of your little piece of life because if you raise your voice too much, they end up attacking your integrity or that of your family. I did it and I had to leave for a few days, because I was threatened, they made me leave the territory. […] I left, I couldn't enter the land, at a certain time, between the months of February, March, April, May, because the government left me alone, because they didn't provide me with protection. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

Similarly, Gladys Ipuana, leader of the Pololima community in the Windpeshi district, reports having had problems with the company of Enel, which had commissioned the construction of the access road to the Windpeshi park right next to her house, without consulting her. After having resorted to the help of the Nación Wayuu organization, its leader received menaces because of its implication in helping the family to see their consultation right recognized.

> There were threats against Dr. José Silva, on two occasions his life was almost taken away for supporting us there by asking for prior consultations. He was threatened. (Gladys Ipuana, semi-structured interview, 27/07/23)

As previously mentioned, threats and territorial conflicts even result in forced displacements. That is the case of Elva and Dicto's family, which was displaced from their ancestral territory in 2021, and

is now living in an Indigenous shelter in the city of Uribia. In the courtyard of this centre, surrounded by white walls that starkly contrast with the open horizon typical of Wayuu *rancherías*, Elva relates the story of their displacement. She recalls that, when the wind power companies arrived (the first was Renovatio, but it was then replaced by Enel), they had consulted her dad, Moises Jusayú, the ancestral authority of the territory. Since he had refused to grant them permission to undertake the project, they had turned to his younger brother, offering him monetary compensation to convince the authority. This sparked a family quarrel. Elva's family was threatened, ("it would come the day when he had to die because he did not agree that companies implement their project there", semi-structured interview, 24/07/23), while her father was hospitalised after being injured by other family members. Eventually, Elva reports, her uncle succeeded in obtaining permission for the company, by falsifying documents that would attest to his authority over the land. After her father returned from the hospital, they moved away from their original land but did not entirely abandon the territory. However, in April 2021, armed men visited them, threatening and compelling them to leave within a day. Since then, the entire family has relocated to the Indigenous centre in Uribia (Elva Jusayú, victim of displacement, semi-structured interview, 24/07/23).

Elva and Dicto's story is just one among many. Other Wayuu informants agree in identifying displacements as one of the major affectations caused by the wind park projects.

> An example: "so I'm going to take your house here because we are a company, we have an agreement with the government, we have to put at turbine here, so this is your house and you have to leave your territory and go live in another one, there's enough land there, go over there"… And if at least they gave you the house there where you are going to live… no, "we are going to help you with some sheets so that you can build your house. Please help us." I was against it. "But how? If this is our territory, this is our life, how are you going to do that?" And I denounced some officials, that they can't allow the rights of a community to be taken away. And that caused me problems, I had to leave the territory because I was defending some communities there. We had to move away for a while to preserve our life. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

> They're going to take people out systematically. […] The people go away happy, because they come with money, but they're going to take them out. Where were they going to go? (José Miguel Correa Batista, leader of the Asociación Autoridades Tradicionales Indígenas Wayuu de La Guajira, semi-structured interview, 25/07/23).

> I come and help my family, because otherwise my mum can't, my mum is sick, my aunt is also an old lady and my sisters… one of my sisters is in Spain because she said she was not going to see how they killed her family here. (Norbelis Suarez, semi-structured interview, 04/08/23)

In this context, it is important to stress that the general perception is that the wind park projects and their companies are directly responsible for the displacements caused:

> Who is to blame for this displacement? The wind farm. Before the arrival of these wind farms, we lived quietly, peacefully in our homes. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

Moreover, in the worst cases, many informants report that social conflicts generated by these culminate in fatalities among members of the Wayuu families.

> In these disputes that were generated, there were displacements and people murdered as well. (José Quintero, semi-structured interview, 29/07/23).

> Because of these same companies, they killed one of my uncles. They didn't even kill him like an animal. They really killed him with stones, they filled his ears, his mouth with sand. They killed him like a savage. (Norbelis Suarez, semi-structured interview, 04/08/23)

To draw a partial conclusion about what has been discussed so far, it can be argued that, under an EJ framework and with respect to the distributive justice aspect, the wind park projects which are planned in the Wayuu territories of La Guajira encompass several negative impacts. Indeed, while the parks are supposed to provide clean energy and to benefit the companies making these investments, the Indigenous inhabitants suffer from social conflicts, threats, displacements, and deaths among their members.

3.1.2 Environmental impacts

The negative impacts experiences by Wayuu communities with respect to the wind parks do not only encompass the social sphere, but also the environmental one. According to various informants, one of the main affectations is represented by the change in the landscape that would be produced by the implementation of the parks:

> These projects finally end up bringing divisions to the territory and change the landscape completely from what it was because they are going to place more than 69 wind farms in the *resguardo* employed in the middle and upper Guajira, and that would automatically change our landscape in terms of the environment. (José Silva, leader of the ONG *Nación Wayuu*, semi-structured interview, 23/07/23).

Moreover, there is a generalised concern regarding the potential repercussions of these parks on the local wildlife, which represents a vital means of subsistence for Wayuu people. Indeed, the livelihoods of most Indigenous communities in the upper part of La Guajira region depend on fishing activities. Consequently, there is scepticism surrounding offshore wind park projects due to their potential direct impact on marine wildlife, which could, in turn, have adverse effects on the subsistence of the Wayuu community.

> Aquifers are going to be altered. Marine fisheries are going to move further away every day because of the noise, because there are also going to be offshore wind farms. (José Quintero, semi-structured interview, 29/07/23)

> From where are we going to feed ourselves if the noise drives the fish away? (Norbelis Suarez, semi-structured interview, 04/08/23)

When discussing about these matters, Rigo, Ida and Ronald, all members of a Wayuu family in the upper La Guajira, agree in considering wind parks as a threat, since they affect not only fish, but also the *chivos* (goats) and rabbits who live in Wayuu's *rancherías* and constitute another fundamental component of their livelihood (informal conversation, 2/8/23). Norbelis fears that "wherever these turbines will be installed, there will be no animal passing below them" (semi-structured interview, 4/8/23).

An additional environmental concern regards the impacts on migratory birds' routes. Indeed, La Guajira peninsula represents a privileged entry site for migratory birds coming from Canada and the United States (Barney, 2023). As José Miguel, leader of the Asociación Autoridades Tradicionales Indígenas Wayuu de La Guajira, points out:

> Migratory birds have their airspace, they have air highways. The various kinds of birds that live day to day in the Guajira and in the evenings they go to their home, we're going to invade their space. (semi-structured interview, 25/07/23)

This is particularly true when it comes to offshore wind parks. In this regard, a scientific study focusing on the ecological impacts of offshore parks in the Mediterranean seas warned against the serious environmental threats posed both to the seabed and to the biodiversity of the area of influence (Lloret et al, 2022). Nonetheless, such recommendations are frequently overlooked by companies. As an example, one of the offshore parks planned in the coastal area of La Guajira region, the Astrolabio park, coincides with an environmental reserve area (Barney, 2023). Moreover, when it comes to migratory birds, the association Seo Birdlife has produced consistent evidence against an acritical implementation of wind park projects, insofar as they threaten birds' habitats and migration routes (SEO BirdLife, 2012; 2013; 2018; 2021). The Colombian association Calibris also warned against the impact of wind turbines and cables for various kinds of birds, from flamingos, to bats, to *cardenal guajiro*, a small bird endemic of the region. According to the association's director, their life would be threatened by the presence of wind turbines, in which the animals could collide (Corredor Rodriguez, 2023).

Although these impacts should be considered by the companies, at the time of undertaking an environmental impact study prior to the project, this is not always the case. As a matter of fact, the area in which the offshore parks are planned coincides with a zone of protection for birds' conservation, as it is reported by a study undertaken by Indepaz (Barney, 2023). Another telling example involves Enel's Windpeshi park. The company has faced criticism, since the environmental study, which aimed to assess the park's impact on migratory birds, only covered a sample collected over a two-months period. According to the Calibris organisation, however, the time frame provided is insufficient for assessing such impacts, particularly concerning migratory birds whose behaviour consistently varies throughout the year (Barney, 2023). In brief, the study seems insufficient and superficial in guaranteeing the absence of adverse impacts on local wildlife, thereby substantiating the concerns expressed by the Wayuu communities on this issue.

The environmental impacts signalled by Wayuu informants, as well as by external sources, are manifold. They encompass landscape alteration and deleterious effects on marine, land, and air wildlife, with cascading effect on Wayuu people's ability to sustain their own traditional livelihoods. Consequently, these impacts would represent an additional burden for the Indigenous people of this territory, stemming from the planned construction of wind parks.

Figure 9. Wayuu *ranchería*. Photo taken by the author (July 24, 2023).

3.1.3 Contradictions in the inequitable distribution of harm and benefits

Under an EJ framework, distributive justice refers to the fair distribution of burdens and benefits deriving from a project impacting the local environment and population. In this regard, Enel's Windpeshi park, together with the other wind parks projects planned in the Wayuu territories of La Guajira, fail to meet this criterion. Indeed, the general perception among Wayuu communities is that, while these parks may provide benefits for the companies or the State, they represent only negative impacts for them.

One of the most striking contradictions concerning the unfair distribution of benefits is access to energy. For counter intuitive as it could seem, communities conceding their territory for the construction of wind turbines lack access to energy and are not planned to be included in the distribution of energy provided by wind parks. When discussing the matter of wind parks with a friend

of his, Rigo utters: “Benefits? We do not even have light, otherwise one would set up their own business!” (field-notes, 3/8/23). Other informants point out the same problem:

> We are the ones who are giving the energy over there. Here in Uribia, here we suffer for the light. Where is the light being generated from? From right here. Well, the light over there, here they send us the little bits that they have left over there anyway. What are they going to do with us here? We asked them for lights and they were going to get light, they're going to get light from there. […] And they say no, that it can't be done and one tells them, “so if you can't provide electricity, make agreements with Uribia to bring the electricity to the communities, make that investment”. They do not even want to do that. (Gladys Ipuana, semi-structured interview, 27/07/23).

> I have never seen a wind park giving energy to a community. Actually, the opposite. […] They take that energy and we do not even know where it goes, they did not tell us where that energy goes. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

Walking through the streets of Uribia, the capital of the Wayuu people, or visiting some rural community makes such contradiction even more blatant. When accompanying Jhon in one of his activities with the Wayunaiki association, we visited a rural school in a community in the outskirts of Uribia. We arrived there with our truck filled with chairs, tables, and basic utensils for cooking. As previously mentioned, children mortality, especially in the Wayuu population, is a major problem in the region. With his association, Jhon strives to compensate the lack of support coming from the State. During that visit, the words of another human rights defender previously interviewed resonated in my mind:

> They [the wind parks] change everything, without having a fair, dignified or equitable compensation for the projects. Every day we are poorer, children die every day from hunger, from thirst, parents without jobs, in other words, we are facing extermination. (José Silva, semi-structured interview, 23/07/23)

Griselda’s *ranchería* stands on the access road to Enel’s Windpeshi park, which was built by the company CJR Renewables (Barney, 2023). Under a scorching sun, I was walking to her house with Janny, a social worker operating in Uribia, and we passed in front of an abandoned aqueduct station. In that same moment, a man was moving in the opposite direction, pushing a small truck full of cans

of water. That scene summarises the inherent contradiction that characterises a sacrifice zone. As Janny explained to me, the aqueduct did not function because of the lack of energy, therefore they needed to import water from the city in that manner. The same place that is set to become Colombian biggest producer of green energy lacks the basic infrastructure to provide energy and water access to its own inhabitants. This is the epitome of a sacrifice zone, where the residents' quality of life does not garner the same attention as the potential benefits extractable from the territory in which they reside. The schools present on the access road to the Windpeshi park, for instance, did not receive any improvement, according to Griselda:

> Our kids receive their lessons in classes in very bad conditions, because the State did not give them proper infrastructure. (semi-structured interview, 30/07/23).

Figure 10. Man transporting cans of water on the access road to the Windpeshi park. Photo taken by the author (July 30, 2023).

In this context, the benefits deriving from the production of green energy do not favour the Wayuus inhabiting the territory, which, in turn, mainly experience negative impacts. Their territory can thus be defined as a sacrifice zone; furthermore, it is also pertinent to talk about "green extractivism", in this context, since the extraction of value for external stakeholders is legitimised by the need to produce green energy (this aspect will be dealt with more in detail in the respective section). In this regard, the community does not contrast the extraction of energy as such, but rather questions the lack of positive implications for the Wayuu people:

> It is not like we oppose the energy transition for energy provision, but this should be reflected in the territory. […] So today when one talks about energy transition, we don't know if for us, and when I say we I mean the Wayuus, it is a blessing or a tragedy. Because the energy transition is not for our benefit, but for the benefit of the rest of the country, and the compensation that there is going to be is null and void, and it is threatening our territory. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

Another crucial aspect to highlight with respect to distributive justice pertains to compensations. As anticipated, the construction of wind park projects implies a compensation for the use of Wayuu territories. Nevertheless, these compensations are deemed insufficient by most of the informants, when considered in contrast with both the benefit generated for the multinational companies and the negative impacts they have to suffer. In Norbelis' words, "the compensations that reach the territories for wind turbines is very little. And the impacts are many" (semi-structured interview 4/8/23). Additionally, companies refuse to grant the compensation in case territorial problems arise. Gladys reports that, in the case of Enel's Windpeshi park, the company had appealed to local strikes as a reason for the works' delays, using them as a justification for withholding the community's compensation during the four months of strike. This was done without considering that, on one hand, in other parts of the territory works had not been altered and had proceeded; on the other, that the strikes were caused by companies' deficiencies in the first place (Gladys Ipuana, semi-structured interview, 27/7/23).

The absence of an adequate compensation for negative impact produced is also confirmed by the lack of inclusion in the job possibilities provided by the park. Some of the informants lament that most of the workers hired by the company are not from the local area.

> They didn't give us much participation, I was one of the people who always fought because we are the ones who suffer the negative impacts there. We are from the sector, we are the ones who live there day by day, we are the ones who travel daily from the community to the municipality. They should have given more participation in employment areas. […] There was enough to generate employment, but the majority, 80 %, I would say, 90% were not from the sector, but they were from here, from the municipality of Manaure, from Maicao, from other parts. (Gladys Ipuana, semi-structured interview, 27/07/23).

Moreover, the small number of Wayuus that, in contrast, received a job from the company, were not capacitated and thus relegated to unqualified mansions, such as directing traffic in the construction site, as in the case of Enel's Windpeshi park (Griselda Maria, semi-structured interview, 30/07/23). This additional contradiction generates understandable doubts about the balance between benefits and harms in relation to the wind park project, as well as leading to question the idea of progress that they embody:

> And they talk to us about an unskilled labour force, but it turns out that what Enel Green Power is supposed to do is build roads in part of the Windpeshi district and to put some towers where the parks are going to be, and that's what they're working on with heavy machinery. And the Wayuu, his job is to be a traffic guide, and they rotate them every two months, every three months and we have to fight for a decent job. Because if we don't have a decent job, I would think that the progress that Colombia wants for us with its alternative energies is a failure. (Griselda Maria, semi-structured interview, 30/07/23)

To draw a partial conclusion about what has been discussed in this section, it is possible to emphasize that, according to the informants' perception, the wind parks planned in the Wayuu territory of La Guajira represent a case of environmental injustice, with respect to the first pillar of this framework, that is distributive justice. Indeed, members of various Wayuu communities report that, while on one hand the wind parks have provoked numerous negative impacts, such as social conflicts and environmental alterations, on the other hand they did not imply equally relevant benefits for the communities living in the affected territories. These, on the contrary, continue living in a condition of poverty and were not included in the job possibilities brought about by the projects. Ultimately, the Wayuu land that hosts wind park projects can be considered as a localised case of environmental injustice, an example of a sacrifice zone in the name of an energy transition, and indeed a case of green extraction as well. After having discussed the first aspect of the EJ framework with respect to

this case, the analysis will then proceed by taking into consideration the second aspect, namely procedural justice.

Figure 11. Access road to the Windpeshi park. Photo taken by the author (July 30, 2023).

3.2 Procedural justice

3.2.1 *Consulta previa* and related problems

> We agree with the energy transition, as long as they explain to us what an energy transition is. But we have our reservation on the way the companies come to the Wayuu territories. (Rusbeld, semi-structured interview, 30/07/23)

The second tenet of the EJ framework is that of procedural justice. It refers to the degree to which the people that will be affected by a certain project are involved in the decision-making process. When it comes to procedural justice with regards to wind park projects in Wayuu territories of La Guajira,

problems appear to arise on two levels. On one hand, they concern anomalies emerged during the prior consultation process (*consulta previa*) with Indigenous communities; on the other hand, it refers to a second type of injustice, i.e. cognitive injustice, which describes the fact that uneven knowledge perpetrates an uneven power balance. This section will deal with both aforementioned aspects.

Before delving into the examination of the problems related to the prior consultation process, it is important to describe what it is and what it implies. In Colombia, according to national and international law, any project undertaken in Indigenous territories must undergo an iter known as *consulta previa,* that is "prior consultation". Prior consultation is defined as a "fundamental and collective right, which is realized through a procedure, by means of which the State […] guarantees ethnic communities, through their representative authorities, participation and access to information regarding projects, works, or activities intended to be carried out in their territory, provided that they may be directly and specifically affected in their capacity as such" (ANLA, n.d., *my trans.*). This means that Indigenous people whose ancestral territory will be affected by the project have the right to be fully informed about its impacts, the compensations proposed, and thus to come to an agreement with the proposing company through the mediation of the State. The prior consultation is composed of five steps, as defined by the Presidential Directive of the 10th of November 2013. They are certification, coordination and preparation, pre-consultation, consultation, and follow-up (Ministerio del Interior, n.d.). All these steps involve the participation of the three parties, namely the State, the company, and the Indigenous community. After a company has successfully completed the prior consultation process and received a favourable outcome, it may proceed by applying for a license from the National Authority for Environmental Licenses (ANLA, n.d.).

Although the prior consultation's aim is that of ensuring the defence of Indigenous peoples' rights over their ancestral territories and their participation in the decision-making process related to them - that is, a proper application of the procedural justice principle – such goal is not always reached. Indeed, the Wayuus interviewed for this research highlighted several problems with regards to how the prior consultation was undertaken by companies, in the context of the development of wind park projects. In the worst cases, informants report that the consultation did not happen at all. Griselda, as previously noted, lives in a *ranchería* next to the access road to the Windpeshi park. Although the road is not part of the wind park itself, it was constructed on Indigenous territories, which were not consulted, as Griselda denounces:

> Enel has deceived us, by sitting with the Mayor and negotiating with him. The Mayor is doing politics with our lands, which are being exploited and will keep on being exploited, with their wind and sun. (Griselda Maria, semi-structured interview, 30/07/23)

Similarly, according to William, environmental engineer, the companies do not consult the communities living in the transmission lines area (semi-structured interview, 31/07/23). In other cases, companies undertake the prior consultation process, but only with a limited number of families who inhabit the area.

> The projects are being built within the territory of the *resguardo* and more; however, they only arrive, consult with 5 or 10 communities and leave the rest outside, so prior consultation is manipulated here. (José Silva, semi-structured interview, 23/07/23)

Many informants deem the social conflicts within and among Wayuu families as a direct result of the lack of an adequate prior consultation process. Since companies sought permission only by a limited number of households, the remaining were denied their right of decision over their territory, and this resulted in internal hostility. In Griselda's view, "the inter-clan war that is forming is due to a lack of prior consultation with the whole family, with each one of the households in their *resguardos*" (Griselda Maria, semi-structured interview, 30/07/23).

Another culturally specific problem related to the failure of the prior consultation process stems from the company's lack of knowledge regarding the recognised authority over a specific piece of land. This complication starts with the confusion between ancestral and traditional authority.

Rusbeld explained to me that, in Wayuu cosmovision, every *eiruku* (clan) is tied to an ancestral territory, which can be identified by the presence of an ancestral cemetery. Indeed, Wayuu burial ceremonies happen twice. At first, the person is buried in the place where they die. Then, some months later, the remains are exhumed and transferred to the ancestral cemetery. The clan whose ancestral cemetery lies on a specific piece of land exerts authority over it, regardless of the fact of residing there in the present. In this sense, the ancestral authority is identified as the person who should be consulted in order to make decisions. However, they do not decide autonomously, but reunite the whole clan with that aim (semi-structured interview, 30/07). The traditional authority, instead, is a role introduced by the Colombian State, with its Constitution in 1991, with the aim of managing the economic resources in Indigenous territories. It is an organisational role, created by the State, which

is not directly connected with the clan's ancestral heritage, according to Rusbeld's explanation. Indeed, anyone could present documents to the Interior Minister to be recognised as a traditional authority. For this reason, while before 1991 only about 400 ancestral authorities existed, in 2022 the number of traditional authorities was estimated to be more than 7 000 (semi-structured interview, 30/07).

The dichotomy between ancestral and traditional authority poses a problem at the time of undertaking a prior consultation process, since it frequently happens that the companies consider the traditional authorities, instead of the ancestral ones. According to José:

> What is happening with the prior consultation? The prior consultation is taking place with people that are not the ancestral owners of the territory. The ancestral owners of the territory are not interested in being registered in the Ministry of Interior. What happens is that those that are summoned by the Head of prior consultation [*dirección de consulta previa*] to gather in the consultation meetings are those that are registered in the Ministry as authorities. But the ancestral owners, those that are owners of the territory, who know the spiritual part, they are not registered, they are not interested in being registered in that. (José Quintero, semi-structured interview, 29/07/23).

Failing to recognise the legitimate authorities of the territory represents a deficiency on the part of both the company and the State at the time of undertaking the prior consultation process, which results in the lack of application of the procedural justice principle. However, an even more evident breach of such principle is determined by the fact that, in several of the cases reported by Wayuu informants, companies ignore the will of the authorities that would oppose their projects. In some cases, as reported by Elva and Dicto, they would pay another member of the community in order to falsify documents (semi-structured interview, 24/07/23) or to convince the rest of the members to approve the project. José Miguel has witnessed several prior consultation processes, and defines them as a "sophism", since they can be manipulated by money: "This is one of democracy's sophism. If four persons are in favour and six are against, the company goes and pays two of them". When I asked him if such situation took place, he replied "it happened and it will happen again" (semi-structured interview, 25/07/23).

With regards to the prior consultation process, there is a generalized impression that the latter is structurally biased to favour the interests of the State and the firm, while the Wayuu communities lack

support and protection. This is the opinion that José formulated, after working both on the side of the government and on behalf of the company:

> All goes against the security of communities […] There's no one to defend that. I mean, it's a giant, government and companies are giants against a tiny. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

While the State should be the guarantor of Indigenous rights in the context of the prior consultation, several Wayuu informants report having felt abandoned, and accuse the government of collaborating with the companies instead, due to economic reasons.

> Because there are wind farms in the way and they never want to put obstacles or see that part. I mean, the Wayuus may be blown away by the wind. The Wayuus, if they are going to kill them, let them kill them. Why? Because it is no secret that the wind farms work with the government. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

> Because the government itself ignored everything we told them. Why? Because they didn't want to put obstacles in the way, they didn't want to make problems, they didn't want to put that bad point on the wind farms. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

> Right now we feel run over by Enel, because they made an alliance with the municipal Mayors, the governors… (Griselda Maria, semi-structured interview, 30/07/23)

> We are alone and anyone who raises his voice is already an enemy of the company, he is already against development, he is already against the energy transformation. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

> And there are no institutional guarantees, the Ministry of the Interior should be the coordinator of these consultative processes and should also provide the tools so that the communities can carry out this dialogue within the framework of their limited knowledge, especially because there are many limitations in terms of knowledge. There are communities that are only now hearing about what consultation is, its essence, its procedure, and they are totally unaware of it. (William Iguaran, semi-structured interview, 31/07/23)

In summary, the prior consultation process, designed to ensure equitable participation of Indigenous people in decision-making concerning the establishment of wind parks in their territories, often falls short of achieving its intended objectives. A failure in this process represents a breach of the procedural justice principle, thus marking a case of environmental injustice with respect to the wind parks in La Guajira.

3.2.2 Cognitive justice

> One is illiterate about something they do not master. What do you think rural people know about wind parks? (Royer Polo Ramos, semi-structured interview, 30/07/23)

The second layer of procedural injustice taking place in the Indigenous territories of La Guajira refers to the cognitive side, i.e. the availability of information with respect to the projects. Indeed, a fundamental component of the prior consultation process regards providing the affected community with clear and transparent information about the project that is intended to be undertaken. Nevertheless, information on its own loses its relevance when individuals receiving it lack adequate preparation on the topic discussed. Several informants identified this is a major shortcoming with respect to the way the prior consultation process unfolded. Indeed, community members, including the traditional or ancestral authorities, often lacked the fundamental knowledge necessary to thoroughly understand the real implications of the projects. In order for me to understand such knowledge unbalance, José Miguel adopted the following metaphor:

> So, we are two people conversing on a subject and I am ignorant about the knowledge you present to me. You have full knowledge. Then we come to a concertation. The concertation is to be able to reach an agreement with the communities. This mobile phone that you bring is an iPhone, it has a cost, let's say a million Colombian pesos. That phone is worth one million pesos, but, outside of that phone, its operability is bigger. So you want to sell it to me. You tell me that the phone is worth one million pesos and you sell it to me for one million pesos, so that I can answer phone calls. So you did well, you sold it to the right price, but if we go to investigate, that phone, in Italy, is worth much more than what you are selling it for. Apart from that, you told me about the fact that I can answer phone calls every time someone calls me, and the only thing I do with my phone is answering phone calls, I cannot use the other functions, open YouTube, WhatsApp, use the other applications… You gave me technology and all of this, but what do I do with it? Nothing more than answering phone calls. So, when we do our negotiation, where this phone is worth one million pesos, and I have to give you something, are you or are you not deceiving me? You are

> deceiving me, voluntarily. And this is what is happening today with these communities. (José Miguel Correa Batista, semi-structured interview, 25/07/23)

According to Rusbeld, many of the people consulted do not even speak Spanish, especially when they are the ancestral authorities. Moreover, they lack basic knowledge about prior consultation, renewable energy, wind turbines, and related subjects. This creates the precondition for an unfair decision-making process, whereby no attention is given to overcoming the knowledge gap among the parties. And, as Royer states, "ignorance knocks down those who are not prepared" (semi-structured interview, 30/07/23). On the contrary, the impression shared by Wayuu informants is that companies take advantage of this lack of knowledge, in order to secure their gains.

> Maybe, the company, that is private, is only interested in their profitability, that is to say, "hey, the less the communities know, the less compensation there can be and so I keep my profits". Especially because part of the compensation has to come out of the company's profits. (William Iguaran, semi-structured interview, 31/07/23)

Another form of perpetrating cognitive injustice is avoiding providing clear and transparent information to the Indigenous communities, which is another problem highlighted by several Wayuus. The common perception is that, during the prior consultation process, there was "no clarity", "disinformation" and "lack of information" (José Silva, semi-structured interview, 23/07/23; José Quintero, semi-structured interview, 29/07/23). More specifically, in the case of the Windpeshi park of Enel, one of the family affected by the access road reports having been "deceived" by lack of transparency on behalf of both the company and the State:

> In 2014 the dialogues began. In 2016 they began to blow up the entire road to Windpeshi. And they deceived us, they told us that this was a road that they were going to build for us and we said: "No, but our road is fine like this". "No, no, this is a road that the State is going to build for you". They even put the administrative agreement in place, and when we found out who the contractor was, it said Enel Green Power. And we said "let's see who Enel is", we looked on the internet and it turned out to be a multinational company that came to work on the wind farms. We found out later, when they had already razed everything to the ground. (Griselda Maria, semi-structured interview, 30/07/23)

Moreover, the information provided by the company for the construction of the Windpeshi park present yet another anomaly. Indeed, the environmental licence had been granted for turbines which measured 106 metres. Nevertheless, the company subsequently replaced them with a different type, which measures 164 meters, although without prior notification to the communities (Barney, 2023). This represents yet another case of cognitive injustice.

A lack of transparency implies, more specifically, avoiding mentioning the expected negative impacts generated by the wind parks. Despite having participated in all the reunions that took place for the prior consultation, Leyjill Hanna Gonzaléz Ipuana reports: “nowhere in the meeting did I hear that we could fight with the neighbour, that it could generate envy, that it could generate misunderstandings, inconveniences” (semi-structured interview, 23/07/23). Another way in which Wayuu communities are deprived of the right to clear and transparent information is the lack of an independent environmental impact study. According to Rusbeld, the Wayuus lack the economic resources to undertake such assessment, and they do not receive support from the State in this regard (semi-structured interview, 30/07/23).

Finally, cognitive injustice is perpetrated as a lack of cultural translation effort. Informants report that, even when companies hired translators, they were not trained to code the message in a way that could be understood, taking into consideration the cultural difference among the parties. The result was that “in this situation, [Indigenous people] do not understand. They do not code messages neither linguistically, culturally nor technically” (Rusbeld, semi-structured interview, 30/07/23). In the worst cases, the translators would misrepresent the information to favour the company they were hired by:

> So there was a shortcoming with translation and the other issue is that the translators were at the service of the companies. It's like saying “I hire you and you are going to say what I am going to say, in other words, what I need you to say. Because the project has to move forward”. (Rusbeld, semi-structured interview, 30/07/23)

Drawing a conclusion, it can be argued that the wind park projects, planned in the Wayuu territories of La Guajira, present several layers of injustice, according to the EJ framework. As part of the procedural aspect, cognitive injustice refers to the unfair level and distribution of knowledge around the project proposed by the company. Avoiding mentioning negative impacts, the absence of an independent environmental impact study, the lack of willingness, on behalf of the company, to bridge

the cultural divide and the different level of knowledge about the topics, are all expressions of a power dynamic that privileges the companies to the detriment of the local, Indigenous population.

3.3 Recognition justice

When we finished recording our interview, José Miguel, leader of the Wayuu Indigenous Authorities Association of La Guajira (*Asociación Autoridades Tradicionales Indígenas Wayuu de La Guajira*), led me to the cultural centre of the city of Riohacha. Once there, we entered a library, where he started looking for books regarding Wayuu cosmology and costumes. While rapidly skimming over the shelves in the search for a good title, he uttered that if I wanted to understand what had happened with the wind parks, I had to start from there, because that was precisely what had been missing in the dialogue between the companies and the communities: a lack of understanding, from the company's side, of Wayuu culture.

This is precisely what recognition justice is about. When an environmental project is planned, the principle of recognition justice identifies the need to take into consideration and respect the cultural differences among the parties involved, and to act accordingly. As previously mentioned, this work adopts the notion of recognition justice for operational reasons, since it is suitable as a conceptual category. However, when adopted in this section, the concept does not only encompass a divide on a cultural level, but on an ontological one too, as suggested both by Escobar (2014) and within the Indigenous Environmental Justice framework.

As it has been emphasised with respect to the other two aspects of the EJ framework, the wind park projects in La Guajira appear to also breach the principle of recognition justice. Indeed, the general view emerging from the interviews is that, when entering the territory, the companies disregarded the cultural and ontological specificity of Wayuu cosmology, especially in terms of spirituality, thus laying the basis for the subsequent problems in the relations between communities and companies.

> As long as engineers and businessmen do not understand the spiritual side of the Wayuu people, they are not going to be able to enter in La Guajira. The parks are not going to be able to be built as long as the engineers do not understand the spiritual component of what Wayuu life means. […] There are a lot of restrictions regarding the construction of the parks, because of their effects on their world, on their spiritual world, on their relationship with their environment, with that cosmovision of nature, so that is what the engineers don't understand and that is the main barrier existing today. (José Quintero, semi-structured interview, 29/07/23).

> That interpretation, we feel that is necessary that the Western society knows it, the State knows it, the companies know it, before doing an intervention within the territory before, before approaching it. Because if they come and didn't know about all of that reality, they destroy a whole worldview, I mean, a whole cosmogonic reality that exists around the wind, the sun and the grandmother sea. (Rusbeld, semi-structured interview, 30/07/23)

This happened in the case of Enel as well. The shared perception is that the company entered the territory without a real understanding of its culture and cosmovision, thus generating conflicts and mistakes. In Jhon's view, such attitude was determined by the fact that the company would privilege the economic aspect over the cultural one (semi-structured interview, 4/8/23).

> They didn't really know the Wayuu people, so they made many mistakes, they gave money, they talked to people they didn't have to talk to, they didn't respect the centrality, they promised things that the community was not really interested in. (José Quintero, semi-structured interview, 29/07/23)

> Enel did not really sit down to evaluate the impacts and the level of conflictuality there was, and to understand, I mean, understand from a cultural and territorial interpretation first. They rather started looking for scientific techniques of social approach. (Rusbeld, semi-structured interview, 30/07/23)

A lack of consideration of the cultural and ontological aspect implies several negative implications. One of them, as it is reported by many Wayuu informants, is that wind parks risk to impact and violate Wayuu sacred sites and the spiritual beings present in the territory.

> Wind energy is supposed to be a clean energy. The energetic transition is for development, but not for ancestral people. Because for them to install their project, they have to desecrate our sacred sites. They are doing it, they have to invade our territories and they are doing it. (José Silva, semi-structured interview, 23/07/23)

> The wind turbines raise another concern. Because they, the Wayuus, say "well, where are they going to build them?". I told you that in our territory there are sacred sites. There are sites where the spirits sleep overnight. What if along this path here, a spirit passes at night? And the company says that they are going to build a wind turbine there. Where is this spirit going to go? Where is he going to walk? (Rusbeld, semi-structured interview, 30/07/23)

Broadly speaking, many informants recognize the spiritual and cultural impacts as major shortcomings of the wind park projects, along social and cultural ones. Since Wayuu territories are mainly desertic and appear almost totally empty, apart from some sporadic vegetation and their *rancherías*, considering the cultural impact is not evident from an external, Western standpoint. Yet, as Royer recalls, "modifying the territory here to make space for big projects is for the Wayuus the same as it would be taking away the Tour Eiffel in order to make a bigger road. It is a spiritual and cultural impact" (field notes, 30/07/23). Among the spiritual impacts mentioned by the people interviewed, a concern emerges with regards to their souls and their possibility to rest.

> An electromagnetic field is going to form here in the sky. Spiritually, when someone dies, the soul detaches from the body and this soul goes to rest in Jepira, that is the sacred site in Cabo de la Vela. But, when it departs from the body, the soul crashes with this electromagnetic field and therefore rest never comes. (José Silva, semi-structured interview, 23/07/23)

Similarly, dreams hold particular relevance in Wayuu cosmovision. According to John, they are "guides" for them. However, with the installation of wind parks, the oneiric realm risks to be affected too:

> I wake up and see this tower, this monster, and I cannot sleep, I cannot dream with something they brought there, because I feel that that monument is observing me, is monitoring me. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

Among the several ways in which the absence of recognition justice manifests itself, one of them is failing to seize the different conception of well-being and "progress" held by the parties involved. As John states,

> There is an *alijuna* [non-Indigenous] mindset that says that we are the ones opposing development, but they see it from a Western viewpoint. They are not looking at it from our own vision. (semi-structured interview, 4/8/23).

This aspect is recurring through-out the interviews. Indeed, the Wayuus consulted frequently refer to the wind park projects as an embodiment of a specific idea of "progress", which does not coincide with theirs. This was, according to Elva, the main reason for which her dad, the ancestral authority of the land, had opposed the projects in the first place. The arrival of the parks was perceived as a

disruption of their traditional livelihood, which had supported them ever since. The prospect of new, yet limited monetary entries, in conjunction with environmental alterations, was not considered as a benefit, but rather as a risk for their subsistence (semi-structured interview, 24/07). The notion of progress associated with the wind parks is openly contested by Leyjill, especially when she contrasts it with the peace and frugality that characterized the territory before the companies' arrival. Indeed, while companies' intervention is presented as a form of progress, encompassing also economic gains, from the perspective of Wayuu inhabitants such progress coincides with social conflicts, altering their once peaceful way of living.

> These parks might say "no, Wayuus have to progress" but they do not stop and think about what we have lost, about the fact that before these parks came, we were happy with the little that everyone had. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

> Progress for wind parks is La Guajira filled with these parks, which generated millions. But if you ask us a comparison, "you will be full of wind parks, you will have a progress that will make you gain money, but you have to watch your back". Or if one sees that their neighbour is envious, because you received money from three, four parks, while he only received from one because his land is smaller… do you think that the Wayuu will say "yes, I will watch my back"? The Wayuu will say: "If for this reason I will start a war with that family, I do not want it. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

Again, the aforementioned aspect is also highlighted in the case of Enel's intervention in Wayuu territories. As Griselda sustains:

> It is a lie that Enel comes here to bring social development. We are still fighting for Enel to respect our Wayuu normative system. We want it to use it, to be part of and to aknowledge our Wayuu mandate. (Griselda Maria, semi-structured interview, 30/07/23)

More specifically, the concept of progress or development, in Wayuu cosmovision, is not strictly connected to economic gain, according to what emerges from the interviews. On the contrary, money is considered a destabilising external factor, which works against the family unity and harmony.

> And so, when I told you that they take advantage of people's necessities, it is because the company breaks in with money and divides the community. "Come here, I will give you these milions of

> pesos so that you buy a car or whatever and support the company". And this is how they divided the community. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

On a more general note, wind park companies' intervention in Wayuu territories is considered as a lack of understanding of Wayuu cosmovision and identity, which is deeply connected to their ancestral land and to a harmonious relation with the natural elements, according to the people consulted for this research. One of the most prominent aspects is indeed the connection with land, which is considered part of one's identity. This point is particularly relevant when one considers that a project such as that of the wind parks implies territorial alterations, as well as displacements.

> The Wayuu is represented by his land. The Wayuu is represented by his corral, the Wayuu is represented by his house, his community. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

> The most sacred thing for us is land. In the territory, there is no Wayuu without land. (Norbelis Suarez, semi-structured interview, 04/08/23)

> Everything turns into a business and the territory, which is the most sacred thing for us, is forgotten. (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

> When they start implementing these parks, they [the Wayuus] will have to move. And this displacement implies losing their culture, losing their territory. For the Wayuu, their territory is their essence. When they leave their territory, they leave their essence. (José Quintero, semi-structured interview, 29/07/23)

Not only is the connection with the territory a fundamental aspect of Wayuu identity. They are one element of an interconnected network, composed by land, human and non-human entities, in which the safeguard of balance and harmony is of uttermost importance. When talking about their relation with natural elements, they describe them in terms of kinship and companionship:

> For me, my mother is the Earth. She was the one who gave me life, because according to our history, the history of our cosmovision is that we are born from the Earth and from the father *Juyá* of the rain. (Griselda Maria, semi-structured interview, 30/07/23)

> Every tree has a meaning for us. That [plant] could be my relative, because she takes care of me when I get sick. When my son gets sick, where do I go? To the plant, with that I bathe my son, my nephew, my family. (Griselda Maria, semi-structured interview, 30/07/23)

The environmental impacts with respect to the disruption of birds' routes has a spiritual implication, too. According to Norbelis, birds occupy a special position in Wayuu cosmovision. They embody different functions, such as that of preannouncing someone's death. In this way, the community members can anticipate it and be prepared. However, with the installation of wind turbines and the interference in the birds' route, there is a fear that this spiritual function will go lost (semi-structured interview, 4/8/23).

Wayuu cosmovision is described as holistic and grounded in a sense of deep connection with the natural elements. However, informants denounce that this cosmovision, as well as the necessity to preserve a balance among the various co-existing entities, was not given appropriate consideration, when wind park companies started a dialogue with the communities. This represents another form of injustice in terms of recognition.

> Harmony is something important. Harmony must be preserved. If harmony is disrupted, there are problems. […] There was no such cultural and territorial interpretation, the connection that the Wayuus have in their lives with the territory and with nature and Mother Earth. (Rusbeld, semi-structured interview, 30/07/23)

To summarise, from the information gathered through the interviews it is clear that the principle of recognition justice is not adequately taken into consideration, in the interaction between the wind park companies and the Wayuu inhabitants. Indeed, the latter denounce that the spiritual impact was not given sufficient credit; in addition, the companies are criticised for the lack of a cultural and cosmological understanding of Wayuu reality, when they approached their territories. On one hand, wind park companies embody a notion of well-being and progress strictly linked to economic gain, in which environmental and cultural alteration are subordinated to technological and economic needs. On the other hand, Wayuu people present a holistic cosmovision, where humans are one part of an interconnected system of elements imbued with spiritual values and defined by relations of kinship and harmony. These two worldviews clash when companies plan wind parks in Indigenous territories.

And by failing to acknowledge (and attempting to reconcile) such cultural and ontological divide, they ultimately perpetrate recognition injustice.

3.4 Socio-ecological justice

The discourse on recognition justice with regards to Wayuu cosmovision serves as a starting point for the discussion on another form of justice, namely socio-ecological justice. Although not explicitly present in the EJ framework, it is a useful additional conceptual tool to evaluate the limits inherent in the idea of an ecological transition as it embodied by wind park projects. As previously outlined, an ecological transition solely conceived as an energy shift, namely from fossil fuel to renewable sources, does not represent a comprehensive solution, since the structural changes implied may result in additional, frequently overlooked negative impacts (Grossman et al., 2021). Scrutinising the wind park projects in La Guajira through the lenses of the EJ framework - distributive, procedural and recognition justice - provided an example of such contradiction. However, the injustice perpetrated by a transition model which is merely focused on technological improvements aimed at changing the energy system can produce negative effects not only on humans, but also on other living and non-living entities inhabiting the same ecosystem. Such concern is emphasised in various interviews with Wayuu members, which have highlighted how the installation of wind turbines for the generation of clean energy could disrupt the habitats and lives of other living beings, from migratory birds to terrestrial and marine wildlife. As previously noted, the precautions taken by companies in this respect are frequently criticised for lack of accuracy and thoroughness, thus denoting an attitude of negligence for what concerns ecological issues (Barney, 2023). This stands in contrast to Wayuu cosmology, which appears, instead, characterised by an ecological understanding of reality and of humans' role in it:

> The Wayuus must coexist in harmony with all the beings that live, that coexist on Mother Earth, with all living beings that are the other Wayuus that are there present, the plants, the animals and the spirits. (Rusbeld, semi-structured interview, 30/07/23)

The concept of socio-ecological justice refers to justice to humans and non-human entities and their relations within an ecosystem (Yaka, 2018). Therefore, by disregarding each of these factors, the wind park projects in the Wayuu territories of La Guajira represent a case of injustice which encompasses the socio-ecological aspect as well.

3.5 Green extractivism and green colonialism

At one point of our interview, Griselda felt it was necessary to make a digression and to explain to me the meaning of the word *alijuna*, which is the term employed by Wayuus, in their native language, to refer to non-Indigenous people. She commented that, for them, it is a "painful" word: *ali* comes from "pain", while *juna* mean "to give". They became accustomed to using this word because the *alijunas* were the colonizers, who would beat them with their guns, bringing them pain (semi-structured interview, 30/07/23). It had been important to clarify the origin of the word *alijuna* while discussing the negative implications of wind park projects in Wayuu territories, since Griselda, as well as other informants, compare the present situation with the era of the colonisation. According to Leyjill:

> The same history of the colonisers is repeating itself. […] Now, with these wind parks, the same is happening. They are not looting in the sense that they steal our money, but they are invading our space. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

> The history repeats itself. Where the colonizers finished half America, well, now, at this time, is going to be that wind parks will finish half of La Guajira. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

Not only is the present situation compared to the material violence perpetrated by colonial powers, at the time of the invasion of the Americas. A parallelism is drawn also with respect to the cultural imposition of Western culture, religion, and education in Indigenous territories. As Rusbeld recalls:

> Companies arrived and did the same thing they did in school when they came with education. They imposed Western education, that you were going to speak the Spanish language, you were going to read and write in Spanish. That was going to implement Western Culture in those schools and place aside our own education. The companies arrive under that same scheme. (Rusbeld, semi-structured interview, 30/07/23)

In line with the information provided by the interviewees, the way wind park companies enter Indigenous territory is perceived as a form of domination and imposition that does not differ from the colonial one. It appears then pertinent to label the wind park projects as a case of green colonialism, whereby neo-colonial dynamics are enacted, though under the name of a green transition. However,

a colonial attitude is only one of the criticisms denounces by Wayuu informants, when talking about wind park projects and the related companies. In addition, they are sceptical about the extractive model these companies seem to perpetrate. According to Rusbeld:

> People are talking about energy transition, but they talk about energy transition employing the same economic architecture of an extractivist model. So, the model is very similar, I mean, resources extraction is the same. All wind energy companies that come to La Guajira come with the aim of obtaining profit and not altering this economic model. (Rusbeld, semi-structured interview, 30/07/23)

From Wayuus' perception, the dynamics underlying the wind park projects seem to follow the extractive model previously perpetrated, whereby Indigenous lands are seen as a source of resources extraction with economic profit as the only goal. It is, thus, possible to describe the process in terms of "green extractivism", together with "green colonialism".

A dynamic of green colonialism/extractivism is composed of several layers. One of them is that the parties involved interact following an unequal power balance. This was the case in colonial times, when European powers confronted Indigenous populations. It is also true in more recent times, when considering the political and economic interaction between the Global North and the Global South. The same power disparity is recognised in the case of wind park projects as well. Indeed, Wayuu informants lament the fact that while the resources are extracted from their territories, the economic benefits are exported abroad. In this context, it is important to stress that among the 29 companies behind wind park projects in La Guajira, only 5 are Colombian, while the vast majority is foreign (Barney, 2023). Moreover, it is noted that the compensation received does not reflect the economic situation of the countries of origin, thus resulting in an unequal economic treatment towards Indigenous people on behalf of multinational companies. As Gladys states:

> Where are they going to extract energy from? From here. Where are they going to take it to? To other countries. Where are they going to generate the money? Over there. And what are they going to give us? Because what they tell us they are going to give us, for them it's like the residues that they will have left over there. Because they are not talking about pesos, over there, they are talking about euros, dollars, while here they talk about pesos, coins, this is what they talk about with us. (Gladys Ipuana, semi-structured interview, 27/07/23)

Another way in which energy companies enact a neocolonial dynamic is by disregarding Indigenous people's rights over their territories. This is what is perceived by many informants, such as Leyjill, who complained about having felt regarded as a mere "tenant" instead of a legitimate owner of her ancestral land.

> I am not saying that these projects are bad, only that they have been ignorant at the time of entering La Guajira. They did not study what could happen, what could be generated. This is the negative part about these projects. Maybe these projects look for pure, clean energy, what do I know? Many things. But they did not stop to think about the real owners of the so-called Guajira, that we thought it was us. Now I see that we are not, that we were here simply as tenants, because basically when the wind park came, they threw as out like "your contract is over, you can leave now". (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

Similarly, Jhon feels that energy companies enter the territory without asking permission in an adequate manner, as you would expect from someone entering some else's house:

> It's as if I were to go to your house and enter and say... "No, excuse me Irene, I'm going to come in here, I'm going to put the fan here, I'm going to put the fridge, here I'm going to put...". No, I have to talk to you, "Will you allow me to come into your house? Let's see if I can stay here or if I can move in here". The same thing." (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

Disregarding Indigenous rights over their territories and overlooking the unequal power relation between foreign companies and Wayuu people are two sides of a process that has been framed as green colonialism. An additional aspect that is worth emphasising is that, in cases such as the one developing in La Guajira, such colonial and extractive attitude is partially concealed or legitimised by the need of undertaking an energy transition towards renewable sources. However, as some Wayuus point out, a contradiction arises with respect to this. An energy produced by wind parks which are built in Indigenous territories by adopting a neocolonial attitude might be perceived as "clean" from a Western, technological viewpoint, but it implies conflicts and violence for Indigenous people. Instead, José argues: "we want this energy to be clean for Wayuus as well. We want that no women or children are killed as part of the energy transition" (José Silva, semi-structured interview, 23/07/23). Jhon is also sceptical about the extent to which such energy might be considered "clean":

> These clean energies are not so clean for us, for us they are harmful, because they damage the territory. It will no longer be the same with the presence of these turbines in the territory. With the presence of these turbines in the territory, everything changes." (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

The energy transition, as it is embodied by the wind park projects in La Guajira, present itself as a continuation of colonial and extractivist dynamics, in the name of a green energy production. According to such model, while a gain is produced both for energy companies and energy consumers, Indigenous peoples' rights and interests are disregarded and "sacrificed". This makes it possible to refer to Wayuu lands as a sacrifice zone, where the quality of life and the rights of its inhabitants are indeed ignored for a supposedly greater, external benefit, which, in this case, is the production of clean energy. Among Wayuu informants, the perception of being treated as a collateral damage or sacrifice is present:

> We always hear that there is always some sacrifice to make. I imagine that, for the wind farms, we are the sacrifices. Because they are generating a lot of money, but at what cost? At the cost that we are displaced, that they are killing us, that we have to leave our territory, that we have to change our lifestyle. We are not used to being enclosed in four walls. We had territories, we had a life somewhere. But with these parks now everything changed." (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

> Because if we look at the balance, if they put the wind farm on one side and they put us on the other, the balance will always be more in favour of the wind farm. For us? Nothing, let the wind blow us away. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

> In other words, we can disappear from Guajira, where they said that Guajira used to be our cradle. Why are they killing us? Because we are small sacrifices. So that energy continues to innovate. So that the wind farms continue to progress. (Leyjill Hanna Gonzaléz Ipuana, semi-structured interview, 23/07/23)

The sense of being a necessary sacrifice is reinforced by the feeling of abandonment from the State, as emerges in several interviews. This perception is confirmed if one considers the lack of investments from the Colombian State in the Indigenous territories of La Guajira and the subsequent wide-spread poverty and lack of access to basic needs that is present in the territory (Roys Garzón, 2020). Apart

from being inherently problematic, this situation makes local Indigenous population even more vulnerable to abuses from multinational companies, which replace the State in providing basic services.

> The government as well wants to take advantage of the arrival of projects from multinational companies to compensate for the lack of services. So they say "but they build you a road to Windpeshi, from Uribia to Windpeshi, from Uribia to the Teta mountain" but, gentlemen, this is an obligation of the State! The State is supposed to guarantee that we can move freely, it should build bridges so that we can move. "Well, they send you trucks with water, they are giving you water…". But this is an obligation of the State, of the Government! And the State tells us: "No, it's that the companies will give you food, some animals…" But it's the State's responsibility to guarantee these rights. "The company commits to create a health centre, so that they can receive you"… No, mr. State, because this is your obligation, not the company's obligation!" (John Jairo Salinas Gonzales, semi-structured interview, 04/07/23)

Such situation of abandonment from the State contributes to depicting multinational companies as fundamental agents for social improvement in Indigenous territories. As a result, this rhetoric encourages Indigenous people to concede their territories to be exploited by external actors, thus further fuelling a dynamic of green colonialism, which could be prevented by a more active provisional role on behalf of the State.

Overall, the implementation of wind park projects is commonly depicted as a reiteration of colonial and extractivist dynamics, whereby Indigenous rights and land ownership are violated for the economic interests of energy companies (which are mainly foreign) and for an energy transition that will mainly provide external benefits. In this context, Wayuu lands are reconfigured as "sacrifice zones", given that their inhabitants integrity is subordinated to an external gain. It is then possible to describe the scenario unfolding in La Guajira as a case of green colonialism and green extractivism, since the need for a green transition stands as justification and legitimisation of the violence perpetrated.

4. Conclusion

The wind park projects, both planned and under construction, in the Wayuu Indigenous territories of La Guajira stand as clear example of the limits inherent to an ecological transition, when the latter is conceived merely in terms of a technological shift. Indeed, one of the most pressing problems related

to the climate and ecological crisis concerns the excess of greenhouse gases emissions depending on the use of fossil fuel energy. Consequently, one of the answers provided by technological progress is represented by an incremental use of alternative and renewable energy sources, such as wind power. Despite being fundamental to the necessary infrastructural change needed to mitigate the effects of climate change, relying solely on technological solutions appears insufficient. On the one hand, a technological shift does not necessarily imply a deeper questioning of the broader political and economic paradigm, which, as argued, stands as a root cause for the unfolding crisis. On the other hand, the implementation of green energy infrastructures often involves negative social and ecological impacts, which are instead overlooked in virtue of the benefit of "clean" energy production. Conversely, according to the just transition framework, an ecological transition should include appropriate considerations not only of the energy outputs, but also with regards to respecting the rights of the people most affected by such transitions. This refers both to people whose livelihoods depend on a fossil fuel economic and also to those who would be affected by new green energy projects. The second category precisely describes the case for Wayuu inhabitants of La Guajira, which already presents a deeply rooted history of extraction and social inequalities.

At the time of planning and implementing some the 57 wind parks that are expected to be built in the region, injustice towards Wayuu communities occurs on several layers, according to the people consulted. On the distributional side, which refers to the way bads and goods are shared among the parties involved, there appears to be great disadvantages for Wayuu inhabitants, while the energy companies and the Colombian State emerge as the main beneficiaries. The negative impacts experienced by Wayuu community members due to the wind parks' planned implementation covers both social and ecological aspects. With regards to the first, people lament a rupture in the traditional Wayuu social fabric and harmony, with most serious consequences involving life threats, displacements, and including homicides. On the ecological side, there is a generalised fear that both marine and air wildlife will be affected, with a direct consequence also on Wayuu livelihoods. Generally speaking, all of these impacts are not perceived to be accompanied by equivalent benefits resulting from the implementation of the parks.

Injustice is denounced at a procedural level too. Indeed, Wayuus lament absent or partial inclusion in the decision-making process (that is, the *consulta previa*) regarding wind park projects. While in some cases the communities were not consulted at all, in others anomalies arose with respect to the selection of the authorities involved, which did not reflect Wayuu internal hierarchical system. Additionally, it was reported that, on several occasions, energy companies would influence the outcome of the prior

consultation process by bribing some community members. Furthermore, a specific form of procedural injustice regards the deficiencies in providing the communities with clear and transparent information about the parks, and with proper cultural translation effort to allow for its comprehension. This, known as cognitive injustice, adds to the several modalities through which wind parks projects are been unfairly implemented with regards to Wayuus' rights over their territories.

In planning the wind parks, both energy companies and the State are accused of dismissing Wayuu specific cosmovision and ontology, while privileging the dominant worldview embodied by Western technological progress. This is a third layer of violence, defined as recognition injustice (which, in this work, is used with a broader scope, encompassing the ontological realm, and not only the cultural one). Moreover, there appear to be a lack of consideration of the ecological consequences of the implementation of the parks, thus leading to a breach of socio-ecological justice principle, which enshrines the need to preserve ecological balance and relations among human and non-human elements inhabiting a certain territory.

Finally, the dynamics followed by energy companies for the implementation of wind parks are described by Wayuu inhabitants as a new wave of colonisation and extraction, which differs from the previous ones only insofar as it is justified by the need of producing "clean" and "green" energy. However, the dynamics of violence, oppression and unequal power balance defining the interaction between energy companies (which are mainly foreign) and Wayuus are considered in line with a colonial and extractive approach, thus deepening their sense of being part of a "sacrifice zone". This, together with other similar cases unfolding worldwide, in then known as an example of green extractivism/colonialism.

This case study is central to shed light on a fundamental shortcoming of the ecological transition, as it is often depicted in the technocratic discourse. Technological improvements are vital for the profound change needed. However, a blind, acritical application of technological solutions ends up perpetuating the same dynamics of exploitation and oppression (on a human and ecological level), which are at the roots of the systemic crisis currently unfolding. Technologies as wind parks are tools: their usefulness depends on the way they are implemented, and this, in turns, relies on the social, economic and political dynamics underneath. Without a deeper questioning of the neocolonial paradigm of violence and extraction, which mainly affects subaltern groups such as Indigenous people, an ecological transition will fail to be "just". It is, then, vital to recognise the limits of technology within the context of the ecological transition, and consequently to acknowledge the

necessity to expand the conceptualisation of the ecological transition to a wider, deeper level, one that goes beyond mere technological adjustments, but encompasses a more profound reconfiguration of the social, political, cultural, and economic paradigm.

Conclusion

The work presented was the result of an academic and material journey, whose guiding compass has been one of the most pressing questions of our times: what does it mean to undertake an "ecological transition" in the face of the eco-climate crisis? The question was addressed through three more specific enquiries: how can an "ecological transition" be defined? To what extent is it a cultural and social transformation? And what is, instead, the role of technology in the context of such transition?

The first time I encountered the term "ecological transition" it was embedded in an activist context. When I started taking part in climate justice marches, and when I joined local activist groups, one of the most common slogans used was "system change, not climate change". We were demanding a structural transformation. In that arena, then, the "ecological transition" appeared with a specific connotation, which can be summarised as a shift towards a social and political model characterised by a just and harmonious relationship among human and non-human beings, with the ecosystems and the living planet. This view is common not only in activist circles, but has also gained increased popularity in academic fields, such as that of the environmental humanities (Oppermann & Iovino, 2016). However, this is not the only way the "ecological transition" can be understood. A second conceptualisation of the "ecological transition" can be derived from political, social, and technocratic discourses, whereby emphasis is placed only on the technological transformations aimed at producing less pollutants and adopting more efficient and clean energy sources. In this sense, a clear example is represented by the European Green Deal, based on policies of greenhouse gas emissions reduction, and intending to make the economy "modern, resource-efficient and competitive" (European Commission, n.d.).

In this work, I engaged with these two views of the ecological transition and explored their possibilities and limits. The idea of an ecological transition defined as a profound political, cultural, and social change was further articulated in the first chapter. After providing an assessment of the current climate and ecological crisis, I have drawn on works of relevant scholars within the environmental humanities study field - such as Armiero (2021), Tsing (2015), Moore (2017), among others - to argue for the need to consider such crisis in cultural and socio-political terms. The eco-climate havoc was indeed presented as a consequence of the dominant modern Western capistalist and extractivist model (Moore, 2017), based on anthropocentric and patriarchal values, which are rooted in a Cartesian worldview. According to various scholars, by operating a rigid and hierarchical separation between human and nature, man and woman, European and Indigenous people, such

worldview unleashed and legitimised the oppression and exploitation of the "other" and stands also at the basis of the global collapse we are now experiencing. By connecting the ecological and climate crisis, the cultural and socio-political model causing it (Western capitalist extractivism) and its ideological paradigm (rooted in a dualist, hierarchical worldview and technological optimism), it was possible to advocate for the need to embrace the meaning of the "ecological transition" as a profound cultural, political, and social transformation.

To better define such a transformation, I further advocated for the inclusion of three dimensions: ecology, socio-ecological justice, and a decolonial posture. Concerning the first aspect, ecology was mobilized to encapsulate fundamental principles—namely, community thinking, interdependence, interconnectedness, relationality, cooperation, ecocentrism, and ecological equilibrium—that are considered well-suited to inform a paradigmatic change towards an ecologically-minded society. Moreover, in the light of the deep-rooted legacy of the notion of "social justice" within the sustainability/environmental justice debate, it was suggested that such change should also encompass the concept of socio-ecological justice. Finally, in the definition of the ecological transition, the decolonial aspect was also included. According to authors such as Dhillon (2021) and McGregor (2020), the ecological and climate crisis can indeed be read as a continuation of the colonial violence perpetrated by European powers towards Indigenous groups, both on a material and epistemic level. Simultaneously, Indigenous people have resisted throughout the centuries, protecting, and proposing alternatives to the Western modernity. These alternatives include different ontologies, cosmologies and practices, they encompass the ontological, cultural, social and political realm and contribute to the existence of worlds based on other premises and entailing other consequences, which contrast deeply with the modern, Western, capitalist and extractivist socio-political system. If, on one hand, the ecological transition, with its connotation of paradigmatic change, aims at imagining and enacting a profound political, social and cultural transformation, I argued for the fruitful possibilities that would stem from an active engagement with Indigenous experiences, insofar as they represent an alternative to the system that is being criticised (although bearing in mind that such alternatives cannot be taken as a one-size-fit-all solutions, but rather as inspirations).

Following this reasoning, I approached the history and development of the Indigenous movement in Colombia, which led to the establishment of the organisations CRIC and ONIC. By scrutinising their historical development and their epistemological, ontological, and political claims, a clear parallelism emerged with the conceptualisation of the "ecological transition" as transformative social change. The Indigenous movement in Colombia, indeed, first appeared in response to the need to mobilise for

land retrieval, but it soon came to stand as a wider fight for the "liberation of the Mother Earth", that is, a struggle to maintain a relation of protection and care towards land and nature. Such model openly contrasts the dominant, modern, capitalist one in many respects. The relation heralded by the Indigenous movement is indeed based on ecocentric values and sense of kinship towards the Earth, often described as a nurturing mother. Moreover, the modern apparatus is challenged also with respect to its exploitative, consumeristic, and individualistic dynamics, which are instead substituted by an alternative notion of "development" – referred to as *Buen Vivir* – that is characterised by communal solidarity and the pursuit of socio-ecological balance, encompassing both human and non-human entities. Overall, the Indigenous movement appears to share several common claims with an ecological transition conceived as a socio-political and cultural change, aimed at integrating ecological principles and socio-ecological justice. By presenting itself as an ontological alternative, it was concluded that the world(s) defended by the Indigenous movement represent an inspiring point of reference at the time of envisioning and defining an "ecological transition" that would challenge the dominant Western paradigm.

According to the conceptualisation of ecological transition presented so far, the paradigmatic change goes beyond the realm of technology, and is instead more reliant on the cultural and political ground. To better seize the scope of cultural and social norms in promoting ecological practices, I then turned to the case study of the Indigenous community of Bunkwimake. This community inhabits the Sierra Nevada de Santa Marta, a nature-cultural landscape whose biodiversity conservation has been strongly linked to the ecological practices of its Indigenous inhabitants. By adopting the Indigenous Ecological Knowledge framework (Berkes, 2012) as theoretical lenses, and building from my field-research, it was possible to emphasise the link between a worldview imbued with ecocentric values and ecological principles (such as interdependence, ecological limits and equilibrium), and the related ecological practices with respect to human-nature integration and interaction. More precisely, engaging directly with this community helped me appreciate how their ecological practices emerge as a direct continuation of their cultural and social norms and their ecocentric worldview. Taking this example as an expression of the importance of the cultural and social context with respect to environmental practices, I then turned to the ways the ecological transition can be conceptualised, and concluded that, if the aim is that of fostering a more harmonious ecological balance, cultural and social change play a pivotal role.

In the last section of this work, I moved instead to the other definition of the "ecological transition", namely that of a technological shift, and inquired about the limits of this vision. To do so, I focused

on a case study involving the construction of wind parks in Indigenous Wayuu territories and analysed their perceived impacts. Wind parks, intended for the generation of clean energy, constitute a fundamental technological change associated with the technocratic view of the ecological transition. However, it appeared clear that, without scrutinizing the power dynamics within which such technologies are implemented, they can inadvertently perpetuate social and ecological injustice. This is evident in the case study that formed the focus of the concluding part of this research. Members of Wayuu communities affected by these projects decry multiple breaches of what is framed as Indigenous Environmental Justice. On a distributional level, they incur more harm than benefit from these parks. On a procedural level, they have not been adequately involved in the decision-making process. On a recognition level, their worldview and cultural norms have been marginalised in favour of the dominant, modern notion of "progress". Furthermore, the dynamics surrounding the development of such parks reflect a colonial and extractive attitude from multinational companies towards Indigenous people, commonly known as green extractivism/colonialism. Ultimately, wind park projects manifest several negative impacts on the Wayuu people, underscoring the necessity to question the notion of an ecological transition merely relying on the implementation of more advanced and clean technological infrastructures. Instead, it appears crucial to critically scrutinise and challenge the paradigm within which such technologies are adopted.

Overall, through the analysis of the literature and case studies discussed so far, this work confirmed the premises from which it moved. When considering the two possible connotations of the "ecological transition" and their implications, it appears fundamental to envision it as a transformative social, political, and cultural change, rather than limiting it to a technological shift. On the one hand, ecological practices emerge in conjunction with a coherent cultural framework; on the other, technological advancements include also negative impacts, if they are implemented without a more profound questioning of the extractivist and exploitative model within which they are adopted.

Despite providing a valid contribution to the field of the environmental humanities, by including an interdisciplinary and a decolonial approach with respect to the ecological transition, this work also presents some limitations. For argumentative reasons, the reasoning presented here links specific case studies (the Indigenous movement in Colombia, the ecological practices of the Arhuaco community and the impacts of wind parks in Wayuu territories) with two broader and more generalised conceptualisations of the "ecological transition" and their characteristics. Such approach undoubtedly entails some degree of simplification. However, this is also in part inherent to the object of this thesis. The ecological and climate crisis, the related ecological transition and the respective analysis could

themselves be defined, as Morton (2013) suggests, as “hyperobjects”, meaning that their magnitude and complexity are such that they become almost impossible to grasp thoroughly through human rationality, thus underscoring the need for an approach that reduces the whole to simpler parts, which are, however, inevitably partial and incomplete. Moreover, dealing with the eco-climatic crisis and the ecological transition forces us to face what Eriksen (2016) calls “clashes of scales”: the global and the local are inextricably yet conflictingly interconnected, and it is impossible to address one issue without connecting it to a broader picture. It follows that, although I recognise the simplifications made in the course of this work, they are also, to some extent, necessary at the time of dealing with such a topic.

Other limitations are related to the methodology adopted. Fieldwork is always constrained by occurrences that cannot be thoroughly anticipated or planned. Despite the efforts to gather information in the most comprehensive and accurate way, it must be noted that the data was limited by the time available and the contacts that it was possible to establish during my stay in Colombia. Regarding fieldwork and, more specifically, the interviews undertaken, another limit is represented by language: the interviews were conducted in Spanish, a language that was not the mother tongue for either myself or the interviewees in most cases. However, this limitation was partially mitigated by the fact that, before undertaking this study, I had resided in Colombia and acquired proficiency in the language. Furthermore, any ambiguity in vocabulary was clarified by asking questions, and recordings were reviewed multiple times for accuracy.

One last limitation, which is linked specifically to the last chapter, depends on the fact that the events that are dealt with, namely the implementation of wind parks, are constantly evolving. The information presented provides a picture of peoples’ perception of the situation as it was unfolding at the time of undertaking the interviews. This means, however, that new events and insights that might have emerged in the meantime could not be included in this study.

The previous limitation points to some possible recommendations for future studies on the topic. Indeed, the ecological transition is already a crucial theme in public and academic debate and political agendas and will plausibly gather growing attention in the years to follow, together with the increasing adverse impacts generated by the climate and ecological havoc. Green technologies are already expanding, although their implementation is not always as positive as it might appear, as it is the case of wind parks in La Guajira. Therefore, it is surely both academically, socially, and politically relevant to extend and deepen research on how such infrastructures affect local population. More specifically,

as previously mentioned, wind park projects in La Guajira are a work-in-progress, and they are expanding together with social turmoil and alternative proposals aimed at overcoming present problems. One of them is that of undertaking once more the prior consultation process (Barney, 2023). This work could then be a useful starting point to delve deeper into the evolution of the situation.

There is one last, personal note that I would like to make, in concluding this work. It regards what I deem as the most important insight that I have gathered throughout this journey with and within Indigenous world(view)s, practices, mobilisations, and resistances. I will resort once more to the help of Escobar (2014) and his political, relational ontology, here. Dealing with the ecological and climate crisis can be haunting, and the profound changes it calls for might seem unconceivable and unattainable. The present dominant modern paradigm, so rooted in exploitation, extraction, individualism, blind separation between humans and nature, among others, is so prevailing and apparently unescapable, as to give the illusion that this is *the only world existing, and the only world that is possible to imagine.* As authors such as Ghosh (2017) or Fisher (2009) denounce, the climate crisis is also a crisis of collective imagination, which falls short of projecting an alternative to the present capitalist system. However, what Indigenous people, with their complexities, contradictions, and peculiarities, have showed is that alternatives to this modernity *already exist.* And they are not theoretical speculations, but ontological realities embodied precisely in Indigenous mobilisation and practices, through which they defend a different way to relate with people and nature, another way to define "progress", another way to organise the economic, political, and social life, in open contrast with the dominant paradigm. What we are used to think of as a universe is, in reality, a *pluriverse,* where multiple worlds emerge in the periphery of the modern, capitalist one (Escobar, 2020). These realities are the living proofs that an alternative is indeed possible. And my hope is that such realisation may fuel the imaginative, transformative work of transitioning towards a more ecological and just society.

Bibliography

Acosta, A. (2015). El Buen Vivir como alternativa al desarrollo. Algunas reflexiones económicas y no tan económicas. *Política y sociedad*, *52*(2), 299–330.

Alatas, S.F. (2022). Political economies of knowledge production: on and around academic dependency. *Journal of Historical Sociology, 35*(1), 14–23. https://doi.org/10.1111/johs.12362.

Amerasinghe, M., Farrell, L., Jin, S., Shin, N. Y., & Stelljes, K. (2008). Enabling environmental justice: assessment of participatory tools. *Cambridge, MA: Massachusetts Institute of Technology*.

Archila, M. (2009). Memoria e identidad en el movimiento indígena caucano. In M. Archila, Delgado, Álvaro, M. C. García, J. A. Cote, O. Pedraza, & P. Madariaga (Eds.), *Una historia inconclusa: izquierdas políticas y sociales en Colombia* (pp. 463–534). Cinep.

Armiero, M. (2021). The case for the wasteocene. *Environmental History*, *26*(3), 425–430. https://doi.org/10.1093/envhis/emab014.003.

Asociación de Capitanes de la Zona Indígena del Papurí (Acazunip). (2008). *Plan Integral de Vida Indígena.* Retrieved February 17, 2023 from https://repositoriocdim.esap.edu.co/bitstream/handle/123456789/238/12512-1.pdf.

Avila, S. (2018). Environmental justice and the expanding geography of wind power conflicts. *Sustainability Science, 13*(3), 599–616. https://doi.org/10.1007/s11625-018-0547-4.

Baker, D. C., & McLelland, J. N. (2003). Evaluating the effectiveness of British Columbia's environmental assessment process for first nations' participation in mining development. *Environmental Impact Assessment Review*, *23*(5), 581–603. https://doi.org/10.1016/S0195-9255(03)00093-3.

Barney, J. (2023). *Por el mar y la tierra guajiros, vuela el viento Wayuu.* Indepaz.

Barton, J. R., & Román, Á. (2012). Social movement strategies for articulating claims for socio-ecological justice: glocal asymmetries in the Chilean forestry sector. Globalizations, 9(6), 869–885. https://doi.org/10.1080/14747731.2012.739346.

Benezra, A. (2021). Microbial Kin: Relations of Environment and Time. Medical Anthropology Quarterly, 35(4), 511–528. https://doi.org/10.1111/maq.12680.

Berkes, F. (2012). *Sacred Ecology* (3rd ed.). Routledge.

Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of traditional ecological knowledge as adaptive management. *Ecological applications, 10*(5), 1251–1262. https://doi.org/10.1890/1051-0761(2000)010[1251:ROTEKA]2.0.CO;2.

Bonet, F. J., Aspizua, R., Zamora, R., Javier Sánchez, F., Javier Cano–Manuel, F., & Henares, I. (2011). Sierra Nevada Observatory for Monitoring Global Change: Towards the Adaptive Management of Natural Resources. In Austrian MAB Committee (Ed.), *Biosphere Reserves in the Mountains of the World* (pp. 48–52). Austrian Academy of Sciences.

Botero, E. U. (2005). *Natural Resource Conservation and Management in the Sierra Nevada of Santa Marta: Case Study*. Universidad de los Andes, Facultad de Economía, CEDE.

Brockerhoff, E. G., Barbaro, L., Castagneyrol, B., Forrester, D. I., Gardiner, B., González-Olabarria, J. R., ... & Jactel, H. (2017). Forest biodiversity, ecosystem functioning and the provision of ecosystem services. *Biodiversity and Conservation*, *26*, 3005–3035. https://doi.org/10.1007/s10531-017-1453-2.

Bryman, A. (2012). *Social Research Methods* (4th ed.). Oxford University Press.

Burns, H. (2011). Teaching for transformation: (Re)Designing sustainability courses based on ecological principles. *Journal of Sustainability Education, 2*.

Cabildo Arhuaco de la Sierra Nevada. (2015). *Niwi U'munukunu chwamu narigun re'no'kwamu. Entendimiento mutuo para el cuidado de nuestro territorio. Guía de relacionamiento y diálogo entre el sector minero-energético y el pueblo Arhuaco*. Retrieved February 17, 2024 from https://repositoriobi.minenergia.gov.co/bitstream/handle/123456789/2847/14.%20Gui%CC%81a%20de%20relacionamiento%20y%20dia%CC%81logo%20entre%20el%20sector%20minero-energe%CC%81tico%20y%20el%20pueblo%20Arhuaco.pdf?sequence=1.

Cadena, D. L. (2010). Indigenous Cosmopolitics in the Andes: Conceptual Reflections beyond "Politics". Cultural Anthropology, 25(2), 334–370. https://doi.org/10.1111/j.1548-1360.2010.01061.x.

Calcagni, F., Amorim Maia, A. T., Connolly, J. J. T., & Langemeyer, J. (2019). Digital co-construction of relational values: Understanding the role of social media for sustainability. *Sustainability Science, 14*(5), 1309–1321. https://doi.org/10.1007/s11625-019-00672-1.

Capra, F. (1994). Ecology and community. *Center for Ecoliteracy*, 1–11.

Capra, F. (2005). *El Tao de la Física.* (5th ed.). Editorial Sirio.

Capra, F., & Capararo, C. (1997). *La rete della vita*. Rizzoli.

Kunchamboo, V., Lee, C. K. C., & Brace-Govan, J. (2021). Cultivating nature identity and ecological worldviews: a pathway to alter the prevailing dominant social paradigm. *Journal of Macromarketing*, *41*(3), 484–505. https://doi.org/10.1177/0276146721997540.

Cardona, A., & Ojeda, G. Y. (2010). Special volume: Geological evolution of the Sierra Nevada de Santa Marta and adjacent basins, Colombian Caribbean region. *Journal of South American Earth Sciences*, *29*(4), 761–763. https://doi.org/10.1016/j.jsames.2010.06.001.

Chaves, M., & Zambrano, M. (2006). From blanqueamiento to reindigenización: Paradoxes of mestizaje and multiculturalism in contemporary Colombia. *Revista Europea de Estudios Latinoamericanos y del Caribe*, *80*, 5–23. http://www.jstor.org/stable/25676209.

Chenoweth, J., Ewing, S., & Bird, J. (2002). Procedures for ensuring community involvement in multijurisdictional river basins: A comparison of the Murray-Darling and Mekong River Basins 1. *Environmental Management*, *29*(4), 497–509. https://doi.org/10.1007/s00267-001-0029-8.

CIT (Confederación Indígena Tairona). (2015). *Plan Salvaguardia del Pueblo Arhuaco*. Retrieved May 10, 2023 from https://www.mininterior.gov.co/direccion-de-asuntos-indigenas-rom-y-minorias/planes-de-salvaguarda/.

Claeys, G. (2000). The "survival of the fittest" and the origins of social darwinism. *Journal of the History of Ideas*, *61*(2), 223–240. https://doi.org/10.2307/3654026.

Conejo, A. (2017). Desarmonías que afectan el plan de vida en la Zona Tierradentro. *Unidad Álvaro Ulcué, 1, 39–45.* Retrieved February 17, 2024 from https://revistaunidad.cric-colombia.org/revista-unidad-alvaro-ulcue-edicion-1-2017/.

Conner, D. S. (2003). Socially appraising justice: A cross-cultural perspective. *Social Justice Research*, *16*, 29–39. https://doi.org/10.1023/A:1022922010184.

Consejo Territorial de Cabildos Gobernadores de la Sierra Nevada de Santa Marta [CTC] & Ministerio de Cultura. (n.d.). *Plan Especial de Salvaguardia. Sistema de conocimiento ancestral de los cuatros pueblos indígenas de la Sierra Nevada de Santa Marta.* Retrieved February 17, 2024 from https://patrimonio.mincultura.gov.co/SiteAssets/Paginas/Pes-Pueblos-de-la-sierra-nevada/21-Sistema%20de%20conocimiento%20ancestral%20SNSM%20-%20PES.pdf.

Constitución Política de la República de Colombia. (1991). http://secretariasenado.gov.co/constitucion-politica.

Costanza, R., d'Arge, R., De Groot, R., Farber, S., Grasso, M., Hannon, B., ... & Van Den Belt, M. (1997). The value of the world's ecosystem services and natural capital. *Nature*, *387*(6630), 253–260. https://doi.org/10.1038/387253a0.

Crutzen, P. J., & Stoermer, E. F. (2000). The Anthropocene. *IGBP Newsletter*, *41*. Retrieved January 18, 2024 from http://www.igbp.net/news/opinion/opinion/haveweenteredtheanthropocene.5.d8b4c3c12bf3be638a8000578.html.

Dahl, A. L. (2012). Achievements and gaps in indicators for sustainability. *Ecological Indicators*, *17*, 14–19. https://doi.org/10.1016/j.ecolind.2011.04.032.

DANE. (2019). *Población Indígena de Colombia*. Gobierno de Colombia.

DANE. (2021). *Resultades del censo nacional de población y vivienda 2018. Pueblos Arhuaco, Kankuamo y Wiwa.* Gobierno de Colombia.

Darwin, C. (1859). *On the Origin of Species by Means of Natural Selection, Or, The Preservation of Favoured Races in the Struggle for Life*. J. Murray.

Davis, J., Moulton, A. A., Van Sant, L., & Williams, B. (2019). Anthropocene, capitalocene, . . . plantationocene?: A manifesto for ecological justice in an age of global crises. *Geography Compass*, *13*(5), 1–15. https://doi.org/10.1111/gec3.12438.

De Sousa Santos, B. (2016). *Epistemologies of the South* (2nd ed.). Routledge.

De Souza, M. L. (2021). 'Sacrifice zone': The environment–territory–place of disposable lives. *Community Development Journal*, *56*(2), 220–243. https://doi.org/10.1093/cdj/bsaa042.

Del Monte-Luna, P., Brook, B. W., Zetina-Rejón, M. J., & Cruz-Escalona, V. H. (2004). The carrying capacity of ecosystems. *Global ecology and biogeography*, *13*(6), 485–495. https://doi.org/10.1111/j.1466-822X.2004.00131.x.

Dhillon, J. (2021). Indigenous resistance, planetary dystopia, and the politics of environmental justice. *Globalizations*, *18*(6), 898–911. https://doi.org/10.1080/14747731.2020.1866390

Dickinson, D. C., & Hobbs, R. J. (2017). Cultural ecosystem services: Characteristics, challenges and lessons for urban green space research. Ecosystem services, 25, 179–194. https://doi.org/10.1016/j.ecoser.2017.04.014.

Dorn, F. M. (2022). Green colonialism in Latin America? Towards a new research agenda for the global energy transition. *European Review of Latin American and Caribbean Studies/Revista Europea de Estudios Latinoamericanos y Del Caribe*, (114), 137–146. https://www.jstor.org/stable/48712112.

Dunlap, A. (2019). Wind, coal, and copper: The politics of land grabbing, counterinsurgency, and the social engineering of extraction. *Globalizations, 17*(4), 661–682. https://doi.org/10.1080/14747731.2019.1682789.

Duran-Izquierdo, M., & Olívero-Verbel, J. (2021). Vulnerability assessment of Sierra Nevada de Santa Marta, Colombia: World's most irreplaceable nature reserve. *Global Ecology and Conservation, 28,* e01592. 1–16. https://doi.org/10.1016/j.gecco.2021.e01592.

Editorial team. (2017). Acá le decimos vivir sabroso. *Unidad Álvaro Ulcué, 1, 4–5.* Retrieved February 17, 2024 from: https://revistaunidad.cric-colombia.org/revista-unidad-alvaro-ulcue-edicion-1-2017/.

Ens, E. J., Pert, P., Clarke, P. A., Budden, M., Clubb, L., Doran, B., ... & Wason, S. (2015). Indigenous biocultural knowledge in ecosystem science and management: review and insight from Australia. *Biological Conservation, 181*, 133–149. https://doi.org/10.1016/j.biocon.2014.11.008.

Eriksen, T. H. *Overheating. An Anthropology of Accelerated Change.* Pluto Press.

Escobar, A. (2007). *Territories of difference. Place, movement, life, redes*. Duke University Press.

Escobar, A. (2014). *Sentirpensar con la tierra. Nuevas lecturas sobre desarrollo, territorio y diferencia*. Ediciones UNAULA.

Escobar, A. (2015). Territorios de diferencia: la ontología política de los "derechos al territorio". *Cuadernos de Antropología Social, 41,* 25–38.

Escobar, A. (2020). *Pluriversal politics.* Duke University Press.

Federici, Giardini, Curcio, & Curcio Anna. (2020). *Calibano e la strega le donne, il corpo e l'accumulazione originaria*. Mimesis.

Fenelon, J., & Alford, J. (2020). Envisioning Indigenous Models for Social and Ecological Change in the Anthropocene. Journal of World-Systems Research, 26(2), 372–399. https://doi.org/10.5195/jwsr.2020.996.

Ferrari Cortés, S., & Sáenz Forero, A. (2022). *Diagnóstico diferencial pueblo Arhuaco*. Artesanías de Colombia. Retrieved February 17, 2024 from https://cendar-repositorio.metabiblioteca.org/handle/001/7164.

Fisher, M. (1968-2017), & Mattioli, V. (2018). *Realismo capitalista*. Nero.

Fundación Pro-Sierra Nevada de Santa Marta. (1991). *Historia y geografía: Sierra Nevada de Santa Marta.* Fundo Editorial Fundación Pro-Sierra Nevada de Santa Marta.

Gaard, G. (1993). Living Interconnections with Animals and Nature. In G. Gaard (Ed.), *Ecofeminism: Women, Animals, Nature* (pp. 1–12). Temple University Press.

Geertz, C. (1973). *The Interpretation of Cultures*. Basic Books.

Ghosh, A. (2017). *The Great Derangement: Climate Change and the Unthinkable*. University of Chicago Press.

Gil, S. L. (2020). Pensamiento feminista contemporáneo. (Re)pensar la política en tiempos de crisis. In M. Menéndez Díaz & M. García (Eds.), *La vida en el centro. Feminismo, reproducción y tramas comunitarias* (pp. 231–256). Bajo Tierra.

Giraldo Jaramillo, N. (2010). Camino en espiral. Territorio sagrado y autoridades tradicionales en la comunidad indígena iku de la Sierra Nevada de Santa Marta, Colombia. *Revista Pueblos y fronteras digital*, *5*(9), 180–222.

Gobernación de Casanare. (2006). *Plan de Vida "Resguardo Indígena Chaparral-Barronegro". Etnia U'Wa.* Retrieved May 10, 2023 from: https://www.mininterior.gov.co/direccion-de-asuntos-indigenas-rom-y-minorias/planes-de-vida/.

González Posso, C. & Barney, J. (2019). *El viento del Este llega con revoluciones. Multinacionales y transición con energía eólica en territorio Wayúu.* Indepaz.

Grossmann, K., Connolly, J. J., Dereniowska, M., Mattioli, G., Nitschke, L., Thomas, N., & Varo, A. (2021). From sustainable development to social-ecological justice: Addressing taboos and naturalizations in order to shift perspective. *Environment and Planning E: Nature and Space*, *5*(3), 1405–1427. https://doi.org/10.1177/25148486211029427.

Guáqueta-Solórzano, V., & Postigo, J. C. (2022). Indigenous perceptions and adaptive responses to the impacts of climate variability in the Sierra Nevada de Santa Marta, Colombia. *Frontiers in Climate*, *4*. https://doi.org/10.3389/fclim.2022.910294.

Gutiérrez Aguilar, R. & Salazae, A. L. (2020). Trabajo que crea y sostiene: subvertir lo que nos expropia y devora. In M. Menéndez Díaz & M. García (Eds.), *La vida en el centro. Feminismo, reproducción y tramas comunitarias* (pp. 199–230). Bajo Tierra.

Hale, C. (2004). Rethinking Indigenous Politics in the Era of the "Indio Permitido". *NACLA Report on the Americas, 38* (2), 16–21. https://doi.org/10.1080/10714839.2004.11724509.

Haraway, D. (2015). Anthropocene, capitalocene, plantationocene, chthulucene: making kin. *Environmental Humanities*, *6*(1), 159–165. https://doi.org/10.1215/22011919-3615934.

Haraway, D., Ishikawa, N., Gilbert, S. F., Olwig, K. F., Tsing, A. L., & Bubandt, N. (2015). Anthropologists are talking – about the anthropocene. *Ethnos*, *81*(3), 535–564. https://doi.org/10.1080/00141844.2015.1105838.

Hassler, M. (2015). *Is the tide turning? Mobilizing indigenous rights for Environmental Justice. A case study from extractive projects in La Alta Guajira, Colombia* [MA thesis]. University of Lund.

Hendy, J., Rest, M., Aldenderfer, M., & Warinner, C. (2021). Cultures of Fermentation: Living with Microbes. *Current Anthropology*, *62*, 197–206. https://doi.org/10.1086/715476.

Hermes, T. P. (1982). Orígenes y características de los sistemas de terraje y arrendamiento en la sociedad colonial durante el Siglo XVIII: El caso Neogranadino. *Desarrollo Y Sociedad*, *8*, 17–33. https://doi.org/10.13043/dys.8.1.

Hernández, J. A. V. (2008). Wayúu resistencia historica a la violencia. *Historia caribe*, *5*(13). 47–66.

Herrero, Y. (2021). Miradas ecofeministas para transitar a un mundo justo y sostenible. *Revista De Economía Crítica*, *2*(16), 278–307. https://revistaeconomiacritica.org/index.php/rec/article/view/334.

Hickel, J. (2020). *Less is More: How Degrowth Will Save the World*. William Heinemann.

Hillman, M. (2004). The importance of environmental justice in stream rehabilitation. *Ethics, Place & Environment*, *7*(1–2), 19–43. https://doi.org/10.1080/1366879042000264750.

Houston, D. (2013). Environmental justice storytelling: Angels and isotopes at Yucca Mountain, Nevada. *Antipode*, *45*(2), 417–435. https://doi.org/10.1111/j.1467-8330.2012.01006.x.

IDEAM (Instituto de Hidrología, Meteorología y Estudios Ambientales). (2021). *Informe del estado de los glaciares colombianos*. 027da172-1c95-4842-9f69-3b4ddcfc8767 (ideam.gov.co).

IEA. (2023). *World Energy Outlook 2023*. https://www.iea.org/reports/world-energy-outlook-2023.

Ingold, T. (2018). *Anthropology: Why it matters*. Polity.

Iovino, S. (2016). *Ecocriticism and Italy. Ecology, Resistance, and Liberation.* Bloomsbury.

Morton, T. (2013). *Hyperobjects.* University of Minnesota.

Oppermann, S. & Iovino, S. (2016). Introduction: The Environmental Humanities and the Challenges of the Anthropocene. In *Environmental Humanities: Voices from the Anthropocene* (pp. 1–21). Rowman and Littlefield.

IPBES. (2019). *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (E. S. Brondizio, J. Settele, S. Díaz, & H. T. Ngo, Eds.). IPBES Secretariat. https://doi.org/10.5281/zenodo.3831673

IPCC. (2023). *Summary for Policymakers*. In: *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (H. Lee and J. Romero, Eds., Core Writing Team). 1–34. https://doi.org/10.59327/IPCC/AR6-9789291691647.001.

Jarratt-Snider, K. & Nielsen, M. O. (2020). Introduction. In M. O. Nielsen & K. Jarratt-Snider (Eds.), *Indigenous Environmental Justice* (pp. 3–15). University of Arizona Press.

Jerez, B., Garcés, I., & Torres, R. (2021). Lithium extractivism and water injustices in the Salar de Atacama, Chile: The colonial shadow of green electromobility. *Political Geography*, *87*, 102382. https://doi.org/10.1016/j.polgeo.2021.102382.

Kårtveit, B. (2021). Green colonialism. *Stories of Change and Sustainability in the Arctic Regions*, 157–77. https://doi.org/10.4324/9781003118633-10.

Klein, N. (2014). *This changes everything: Capitalism Vs. The Climate*. Simon and Schuster.

Kleinman, A., & Barad, K. (2012). Intra-actions. *Mousse Magazine*, *34*(13), 76–81. Barad_MousseMagazine(Milan)_Interview2012-libre.pdf (d1wqtxts1xzle7.cloudfront.net).

Kohn, E. (2015). Anthropology of Ontologies. *Annual Review of Anthropology*, *44*, 311–327. https://doi.org/10.1146/annurev-anthro-102214-014127.

Kyriakakis, I. (2014). Western Cosmology, Anthropology and Capitalism. *SOFA (Social, Open and Free Anthropology)*. https://sofanthropology.wordpress.com/.

Latour, B. (2020). *Tracciare la rotta*. Cortina.

Laurent, V. (2005). *Comunidades indígenas, espacios políticos y movilización electoral en Colombia, 1990-1998: Motivaciones, campos de acción y impactos.* Instituto colombiano de antropología e historia; Instituto francés de estudios andinos.

Laurent, V. (2012). Multiculturalismo a la colombiana y veinte años de movilización electoral indígena: circunscripciones especiales en la mira. *Análisis Político*, *75*, 47–75.

Lavaud, J. P., & Lestage, F. (2012). Contar a los Indígenas (Bolivia, Mexico, Estados Unidos). In V. R. Azavedo & C. Carmen Salazar Soler (Eds.), *El regreso de lo indígena. Retos, problemas y perspectivas* (pp. 37–90). IFEA/CBC/CRPA.

Lazar, S. (2021). Anthropology and the politics of alterity: A Latin American dialectic and its relevance for ontological anthropologies. Anthropological Theory, 22(2), 131–153. https://doi.org/10.1177/14634996211030196.

Lejano, R. P. (2019). Relationality and social–ecological systems: Going beyond or behind sustainability and resilience. *Sustainability*, *11*(10), 2760. https://doi.org/10.3390/su11102760.

Lloret, J., Turiel, A., Solé, J., Berdalet, E., Sabatés, A., Olivares, A., ... & Sarda, R. (2022). Unravelling the ecological impacts of large-scale offshore wind farms in the Mediterranean Sea. *Science of the Total Environment*, *824*, 153803. https://doi.org/10.1016/j.scitotenv.2022.153803.

Marino, E., & Ribot, J. (2012). Special Issue Introduction: Adding insult to injury: Climate change and the inequities of climate intervention. *Global Environmental Change*, *22*(2), 323–328. https://doi.org/10.1016/j.gloenvcha.2012.03.001.

Martin, A., McGuire, S., & Sullivan, S. (2013). Global environmental justice and biodiversity conservation. *The Geographical Journal*, *179*(2), 122–131. https://doi.org/10.1111/geoj.12018.

Martínez-Alier, J. (2012). Environmental Justice and Economic Degrowth: An Alliance between Two Movements. *Capitalism Nature Socialism*, *23*(1), 51–73. https://doi.org/10.1080/10455752.2011.648839.

McGregor, D. (2018). Indigenous environmental justice, knowledge and law. *Kalfou Journal of Comparative and Relational Ethnic Studies. Temple University Press: 5* (2), 279–296. https://digitalcommons.osgoode.yorku.ca/scholarly_works/2901.

McGregor, D., Whitaker, S., & Sritharan, M. (2020). Indigenous environmental justice and sustainability. *Current Opinion in Environmental Sustainability*, *43*, 35–40. https://doi.org/10.1016/j.cosust.2020.01.007

Melenge Meneses, R. (2023). La lucha de los otros hijos de la madre tierra. *Unidad Álvaro Ulcué*, *7*, 52–61. Retrieved February 17, 2024 from https://revistaunidad.cric-colombia.org/la-lucha-de-los-otros-hijos-de-la-madre-tierra/.

Merchant, C. (1988). *La morte della natura: le donne, l'ecologia e la rivoluzione scientifica*. Garzanti.

Mestizo, L. (2018). La recuperación de la Madre Tierra no puede morir. *Unidad Álvaro Ulcué, 2, 12–20.* Retrieved February 17, 2024 from: https://revistaunidad.cric-colombia.org/revista-unidad-alvaro-ulcue-edicion-2-2018/.

Meyer, J. L., & Helfman, G. S. (1993). The ecological basis of sustainability. *Ecological Applications*, 569–571. https://www.jstor.org/stable/1942082.

Mies, M., & Shiva, V. (1993). *Ecofeminism*. Zed Books.

Mignolo, W. D., & Walsh, C. (2018). *On decoloniality*. Duke University Press.

Mikkelsen, B. (2005). *Methods for Development Work and Research: A New Guide for Practitioners* (2nd ed.). Sage.

Milgin, A., Nardea, L., Grey, H., Laborde, S., & Jackson, S. (2020). Sustainability crises are crises of relationship: Learning from Nyikina ecology and ethics. *People and Nature*, *2*, 1210–1222. https://doi.org/10.1002/pan3.10149.

Millennium Ecosystem Assessment. (2005). *Ecosystems and Human Well-being: Synthesis*. Island Press: Washington, DC.

Ministerio de Cultura. (n.d.). *Wayúu. Gente de arena, sol y viento*. Retrieved February 17, 2024 from: https://mincultura.gov.co/prensa/noticias/Documents/Poblaciones/PUEBLO%20WAY%C3%9AU.pdf.

Mistry, J., & Berardi, A. (2016). Bridging indigenous and scientific knowledge. *Science, 352*(6291), 1274–1275. https://doi.org/10.1126/science.aaf1160.

Mohai, P., Pellow, D., & Timmons Roberts, J. (2009). Environmental Justice. *The Annual Review of Environment and Resources, 34*, 405–430. https://doi.org/10.1146/annurev-environ-082508-094348.

Monje Carvajal, J. J. (2014). El plan de vida de los pueblos indígenas de Colombia, una construcción de etnoecodesarrollo. *Revista Luna Azul, 41,* 29–56. https://doi.org/10.17151/luaz.2015.41.3**.**

Moore, J. W. (2017). The Capitalocene, Part I: on the nature and origins of our ecological crisis. *The Journal of Peasant Studies, 44*(3), 594–630. https://doi.org/10.1080/03066150.2016.1235036.

Mora, S. (1995). La metáfora ecológica: simbolismo y conservación. *Revista Colombiana de Antropología*, *32,* 103–124.

Newell, P., & Mulvaney, D. (2013). The political economy of the 'just transition.' *The Geographical Journal, 179*(2), 132–140. https://doi.org/10.1111/geoj.12008.

Normann, S. (2021). Green colonialism in the Nordic context: Exploring Southern Saami representations of wind energy development. *Journal of community psychology*, *49*(1), 77–94. https://doi.org/10.1002/jcop.22422.

Ojeda Jayariyu, G. (2007). *Sainrülüü Wayuu. Espiritualidad Wayuu*. Alcaldía Municipal de Maicao.

Organización Zona Central Indígena de Mitú (Ozcimi). (2008). *Plan Integral de Vida Indígena.* Retrieved May 10, 2023 from https://repositoriocdim.esap.edu.co/handle/123456789/235.

Oviedo, G., & Jeanrenaud, S. (2007). Protecting sacred natural sites of indigenous and traditional peoples. In J.-M. Mallarach & T. Papayannis (Eds.), *Protected areas and spirituality*, 77–99. IUCN.

Parsons, M., Fisher, K., & Crease, R. P. (2021). *Decolonising Blue Spaces in the Anthropocene. Freshwater Freshwater management in Aotearoa New Zealand*. Palgrave Studies in Natural Resource Management.

Pastás Cuastumal, E. M. (2014). Conocimiento tradicional y biodiversidad. La conservación de la biodiversidad a través del conocimiento tradicional. *Reporte Humboldt: Biodiversidad*. Retrieved February 17, 2024 from http://reporte.humboldt.org.co/biodiversidad/2014/cap3/307/#seccion1.

Pérez Orozco, A. (2020). Nombrando las crisis desde la vida. In M. Menéndez Díaz & M. García (Eds.), *La vida en el centro. Feminismo, reproducción y tramas comunitarias* (pp. 163–198). Bajo Tierra.

Plumwood, V. (2002). *Environmental Culture: The Ecological Crisis of Reason.* Routledge.

Porto-Gonçalves, C. W. (2011). Abya Yala, el descubrimiento de América. *Bicentenarios (otros), trasiciones y resistencias (39–46).* Uma Ventana.

Povinelli, E. A. (2021). *Between Gaia and Ground*. Duke University Press.

Powell, D. (2006). Technologies of Existence: The indigenous environmental justice movement. *Development*, *49*(1), 125–132. https://doi.org/10.1057/palgrave.development.1100287.

Prada, D. F. S., Ojeda, P. G., Serrano, S. E. G., & Mosquera, C. J. (2021). The Nature of Ethics of indigenous peoples of Colombia. *Cuadernos de Filosofia Latinoamericana*, *42*(125). https://doi.org/10.15332/25005375.6747.

Pulcini, E. (2020). La sfida ecologica: un cambio di paradigma?. *Iride*, *33*(2), 237–249. https://doi.org/10.1414/98536.

Quijano, A. (2000). Coloniality of power and eurocentrism in Latin America. *International Sociology*, *15*(2), 215–232. https://doi.org/10.1177/0268580900015002005

Ratner, N. C., & Holen, D. L. (2007). Traditional ecological knowledge: applying principles of sustainability to wilderness resource management. *USDA Forest Service Proceedings RMRS-P-49,* 45–50.

Reichel-Dolmatoff, G. (1976). Cosmology as Ecological Analysis: A View from the Rain Forest. *Man*, *11*(3), 307. https://doi.org/10.2307/2800273

Restrepo, C. A. (2022). Ecología, cuidado y humanidad en transición: racionalidades de la vida en movimiento frente a la pandemia capitalista y sus virus. In C. Escudero-Nuñez & M. Abrego (Eds.) *Movimientos sociales en la pandemia. Experiencias en Latinoamérica y el Caribe* (pp. 69–82). Universidad de Panama.

Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S., Donges, J. F., Drüke, M., Fetzer, I., Bala, G., Werner von Bloh, Feulner, G., Fiedler, S., Gerten, D., Gleeson, T., Hofmann, M., Willem Huiskamp, Matti Kummu, Mohan, C., Bravo, D., & Petri, S. (2023). Earth beyond six of nine planetary boundaries. *Science Advances*, *9*(37). https://doi.org/10.1126/sciadv.adh2458.

Robertson, P. J., & Choi, T. (2010). Ecological governance: Organizing principles for an emerging era. *Public administration review*, *70*, s89–s99, https://doi.org/10.1111/j.1540-6210.2010.02250.x.

Rodriguez-Navarro, E. (2002). Spiritual Significance and Environmental Effects of Offerings amongst the Indigenous People of the Sierra Nevada de Santa Marta. In *Mountains of the World, International Symposium in Preparation for the International Year of Mountains (IYM2002), Community Development between Subsidy, Subsidiarity and Sustainability*.

Rodríguez-Navarro, G. E. (2000). Indigenous Knowledge as an Innovative Contribution to the Sustainable Development of the Sierra Nevada of Santa Marta, Colombia: The Elder Brothers, Guardians of the "Heart of the World." Ambio, 29(7), 455–458. https://www.jstor.org/stable/4315073.

Rodríguez-Navarro, G. E. (2015). Traditional Knowledge. An innovative contribution to landscape management. In K. Taylor, A. St Clair & N. J. Mitchell (Eds.), *Conserving Cultural Landscapes: Challenges and New Directions* (pp. 277–291). Routledge.

Rose, D. B. (2011). *Wild dog dreaming: Love and Extinction*. University of Virginia Press.

Roys Garzón, N. R. (2020). *Unidos por el cambio*. *Plan departamental de desarrollo de la Guajira.* Gobernación de la Guajira. Retrieved February 17, 2024 from: https://www.laguajira.gov.co/NuestraGestion/PlaneacionGestionyControl/Plan%20de%20Desarrollo%202020%20-%202023.pdf.

Salmon, E. (2000). Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship. Ecological Applications, 10(5), 1327–1332. https://doi.org/10.1890/1051-0761(2000)010[1327:KEIPOT]2.0.CO;2.

Santamaría, Á. (2013). Lorenzo Muelas y el constitucionalismo indígena desde abajo?: una retrospectiva crítica sobre el proceso constituyente de 1991. *Colombia Internacional, 79*, 77–120. https://dx.doi.org/10.7440/colombiaint79.2013.04.

Schlosberg, D., & Carruthers, D. (2010). Indigenous struggles, environmental justice, and community capabilities. *Global environmental politics*, *10*(4), 12–35. https://doi.org/10.1162/GLEP_a_00029.

Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: climate change and the discourse of environmental justice. *Wiley Interdisciplinary Reviews: Climate Change, 5*(3), 359–374. https://doi.org/10.1002/wcc.275.

Scott, D. N. (2014). What is Environmental Justice? In M. Brydon-Miller & D. Coghlan (Eds.), *The SAGE encyclopedia of action research*. Forthcoming. Osgoode Legal Studies Research Paper No. 72/2014. http://dx.doi.org/10.2139/ssrn.2513834.

Seibert, M. K., & Rees, W. E. (2021). Through the Eye of a Needle: An Eco-Heterodox perspective on the renewable energy transition. *Energies, 14*(15), 4508. https://doi.org/10.3390/en14154508.

Seidler, R., & Bawa, K. S. (2016). Ecology. In J. Adamson, W. A. Gleason, & D. N. Pellow (Eds.), *Keywords for Environmental Studies* (pp. 71–75). New York University Press.

Soto Arias, G. (2020). Las propuestas del "giro ontológico" para la Antropología: Antropología latinoamericana y comunidades indígenas. *Neoliberalismo, 115*(2), 130. https://doi.org/10.18800/anthropia.2020.006.

Sovacool, B. K., Burke, M. J., Baker, L., Kotikalapudi, C. K., & Wlokas, H. L. (2017). New frontiers and conceptual frameworks for energy justice. *Energy Policy*, *105*, 677–691. https://doi.org/10.1016/j.enpol.2017.03.005.

Stevis, D., & Felli, R. (2016). Green transitions, just transitions? Broadening and deepening justice. *Kurswechsel, 3*, 35–45.

Strewe, R., & Navarro, C. (2003). New distributional records and conservation importance of the San Salvador Valley, Sierra Nevada de Santa Marta, Colombia: Nuevos registros de distribución e importancia para la conservación del valle de San Salvador, Sierra Nevada de Santa Marta, Colombia. *Ornitología Colombiana*, (1), 29–41. https://asociacioncolombianadeornitologia.org/ojs/index.php/roc/article/view/15.

Tengö, M., Hill, R., Malmer, P., Raymond, C. M., Spierenburg, M., Danielsen, F., ... & Folke, C. (2017). Weaving knowledge systems in IPBES, CBD and beyond—lessons learned for

sustainability. *Current opinion in environmental sustainability*, *26*, 17–25. https://doi.org/10.1016/j.cosust.2016.12.005.

Thomas, A. (2015). Indigenous more-than-humanisms: Relational ethics with the Hurunui River in Aotearoa New Zealand. *Social & Cultural Geography*, *16*(8), 974–990. https://doi.org/10.1080/14649365.2015.1042399.

Todd, Z. (2016). An indigenous feminist's take on the ontological turn: 'Ontology'is just another word for colonialism. *Journal of historical sociology*, *29*(1), 4–22. https://doi.org/10.1111/johs.12124.

Torres Perico, P. (2018). *VISIONES DEL DESARROLLO: Pueblos Indígenas de la Sierra Nevada de Santa Marta y el Gobierno Nacional en los procesos de Consulta Previa adelantados del 2010 al 2017* [MA thesis, Universidad de los Andes].

Trevisam, E., Braga, J. T., & Braga, I. T. (2020). From ecosophy to deep ecology: for a new ecological and sustainable paradigm. *Revista Brasileira De Direito*, *16*(1), 6. https://dialnet.unirioja.es/descarga/articulo/8076215.pdf.

Tunubalá, F., & Muelas Trochez, J. B. (2009). *Segundo Plan de Vida y Pervivencia Misak*. Retrieved May 10, 2023 from https://www.mininterior.gov.co/direccion-de-asuntos-indigenas-rom-y-minorias/planes-de-vida/.

Ulloa, A. (2001). El Nativo Ecológico. Movimientos Indígenas y Medio Ambiente en Colombia. In M. Archila & M. Pardo (Eds.), *Movimientos sociales, estado y democracia en Colombia* (pp. 1–32).

Ulloa, A. (2011). The Politics of Autonomy of Indigenous Peoples of the Sierra Nevada de Santa Marta, Colombia: A Process of Relational Indigenous Autonomy. *Latin American and Caribbean Ethnic Studies*, *6*(1), 79–107. https://doi.org/10.1080/17442222.2011.543874.

Ulloa, A. (2021). Transformaciones radicales socioambientales frente a la destrucción renovada y verde, La Guajira, Colombia. *Revista de Geografía Norte Grande*, (80), 13–34. http://dx.doi.org/10.4067/S0718-34022021000300013.

United Nations Environment Programme. (2023). *Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)*. Nairobi. https://doi.org/10.59117/20.500.11822/43922.

Urkidi, L., & Walter, M. (2011). Dimensions of environmental justice in anti-gold mining movements in Latin America. *Geoforum*, *42*(6), 683–695. https://doi.org/10.1016/j.geoforum.2011.06.003.

Urrutia Hoyos, T. N. & Muelas Calambás, N. J. (2023, March 2). Pishintɵ waramik (vivir en equilibrio). *Unidad Álvaro Ulcué, 7*, https://revistaunidad.cric-colombia.org/pishint%d3%a9-waramik-vivir-en-equilibrio/.

Vargas Reyes, B., & Ariza Santamaría, R. (2019). Liberación de la madre tierra: entre la legitimidad y los usos sociales de la ilegalidad. *Revista Socio Jurídicos, 203*(2), 231. https://doi.org/10.12804/revistas.urosario.edu.co/sociojuridicos/a.7641.

Vasco, L. G., (2007). Así es mi método en etnografía. *Tabula Rasa,* (6), 19–52. http://www.scielo.org.co/scielo.php?pid=S1794-24892007000100003&script=sci_arttext.

Velasco-Herrejón, P., Bauwens, T., & Friant, M. C. (2022). Challenging dominant sustainability worldviews on the energy transition: Lessons from Indigenous communities in Mexico and a plea for pluriversal technologies. *World Development*, *150*, 105725. https://doi.org/10.1016/j.worlddev.2021.105725.

Verschuuren, B., Wild, R., McNeely, J., & Oviedo, G. (2010). Introduction: Sacred Natural Sites the Foundations of Conservation. In B. Verschuuren, R. Wild, J. McNeely, & G. Oviedo (Eds.), *Sacred Natural Sites. Conserving Nature and Culture*, 1–14. Taylor & Francis.

Verweijen, J., & Dunlap, A. (2021). The evolving techniques of the social engineering of extraction: Introducing political (re) actions 'from above'in large-scale mining and energy projects. *Political Geography*, *88*, 102342. https://doi.org/10.1016/j.polgeo.2021.102342.

Vidal Trochez, M. (2017). Territorialidades Impuestas. *Unidad Álvaro Ulcué, 1, 6–12.* Retrieved February 17, 2024 from: https://revistaunidad.cric-colombia.org/revista-unidad-alvaro-ulcue-edicion-1-2017/.

Viloria-de-la-Hoz, J. (2005). Sierra Nevada de Santa Marta: Economía de sus recursos naturales. *Documentos de Trabajo Sobre Economía Regional y Urbana; No. 61*.

Viveiros de Castro, E. (1998). Cosmological Deixis and Amerindian Perspectivism. *The Journal of the Royal Anthropological Institute*, *4*(3), 469–488. https://doi.org/10.2307/3034157.

Voskoboynik, D. M., & Andreucci, D. (2022). Greening extractivism: Environmental discourses and resource governance in the 'Lithium Triangle'. *Environment and planning E: Nature and space*, *5*(2), 787–809. https://doi.org/10.1177/25148486211006345.

Walker, G. (2009). Globalizing environmental justice: The geography and politics of frame contextualization and evolution. *Global social policy*, *9*(3), 355–382. https://doi.org/10.1177/1468018109343640.

Wang, X., & Lo, K. (2021). Just transition: A conceptual review. *Energy Research & Social Science*, *82*, 102291. https://doi.org/10.1016/j.erss.2021.102291.

Watts, V. (2013). Indigenous place-thought and agency amongst humans and non humans (First Woman and Sky Woman go on a European world tour!). *Decolonization: Indigeneity, Education & Society*, *2*(1). https://jps.library.utoronto.ca/index.php/des/article/view/19145.

White, L. (1967). The Historical Roots of Our Ecologic Crisis. *Science*, *155*(3767), 1203–1207

Whiteman, G. (2009). All my relations: understanding perceptions of justice and conflict between companies and indigenous peoples. *Organization studies*, *30*(1), 101–120. https://doi.org/10.1126/science.155.3767.1203.

Whyte, K. (2018). Settler Colonialism, Ecology, and Environmental Injustice. *Environment and Society*, *9*(1), 125–144. https://doi.org/10.3167/ares.2018.090109.

Winter, C. J. (2020). Does time colonise intergenerational environmental justice theory?. *Environmental Politics*, *29*(2), 278–296. https://doi.org/10.1080/09644016.2019.1569745.

Naess, A. (2005). The deep ecology movement: Some philosophical aspects. In A. Drengson & H. Glasser (Eds.), *Selected Works of Arne Naess*, *X* (pp. 33–55). Springer.

World Commission on Environment and Development [WCED]. (1987). *Our common future.* https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

Yaka, Ö. (2019). Rethinking justice: Struggles for environmental commons and the notion of socio-ecological justice. *Antipode*, *51*(1), 353–372. https://doi.org/10.1111/anti.12422.

Sitography

ANLA (Autoridad Nacional Licencias Ambientales). (n.d.). *Consulta previa.* Retrieved February 12, 2024 from https://www.anla.gov.co/participacion-ciudadana/durante-el-proceso/consulta-previa.

Bandera, A. (2015, Mayo 7). Pueblo Arhuaco tendrá pronto un puesto de salud. *El Pilón.* Retrieved February 9, 2024 from https://elpilon.com.co/pueblo-arhuaco-tendra-pronto-un-puesto-de-salud/.

Barros, J. (2020, January 20). El manual indígena para proteger el bosque seco de la Sierra Nevada. *Semana.* Retrieved February 9, 2024 from https://www.semana.com/impacto/articulo/el-manual-indigena-para-proteger-el-bosque-seco-de-la-sierra-nevada/48056/.

Cabildo Arhuaco del Magdalena y Guajira. (n.d.). Retrieved Febrary 12, 2023 from https://cabildoarhuaco.org/.

Cancillería Gobierno de Colombia. (2022, November 29). *Sistema de Conocimiento Ancestral de los cuatro pueblos indígenas de la Sierra Nevada de Colombia es reconocido como patrimonio cultural inmaterial de la humanidad por la Unesco* Retrieved February 13, 2024 from https://www.cancilleria.gov.co/newsroom/news/sistema-conocimiento-ancestral-cuatro-pueblos-indigenas-sierra-nevada-colombia.

Colombia's Alpha, Beta wind farms facing delays. (2023, February 24). *Bnamericas.* Retrieved February 9, 2024 from https://www.bnamericas.com/en/news/colombias-alpha-beta-wind-farms-facing-delays.

Confederación Indígena Tayrona (CIT). (2020, April 9). *Manual Arhuaco para la conservación del Bosque Seco Tropical.* Retrieved February 9, 2024 from https://confetayrona.org/2020/04/09/manual-arhuaco-para-la-conservacion/.

Confederación Indígena Tayrona (CIT). (n.d.). *Recuperación del Territorio Ancestral Arhuaco.* Retrieved February 12, 2024 from https://confetayrona.org/recuperacion-del-territorio-ancestral-arhuaco/.

Consulta previa: un derecho fundamental para conocer medidas legislativas, ¿cómo funciona? (2023, May 5). *Semana.* Retrieved February 9, 2024 from https://www.semana.com/economia/empresas/articulo/consulta-previa-un-derecho-fundamental-para-conocer-medidas-legislativas-como-funciona/202342/.

Corredor Rodríguez, S. (2023, January 16). Energía eólica en La Guajira: un dilema sin resolver para los wayuus. *El Espectador*. Retrieved February 9, 2024 from https://www.elespectador.com/colombia-20/conflicto/el-costo-del-progreso-parques-eolicos-en-la-guajira-un-dilema-sin-revolver-para-los-indigenas-wayuus/.

CRIC. (2016). *Liberamos la Madre Tierra porque no queremos que se muera la vida.* Retrieved February 9, 2024 from https://www.cric-colombia.org/portal/liberamos-la-madre-tierra-porque-no-queremos-que-se-muera-la-vida/.

Ebus, B. (2017, April 26). Colombia's indigenous Arhuaco awarded 500 hectares in ongoing bid to regain ancestral lands. *Mongbay*. Retrieved Febrary 12, 2023 from https://news.mongabay.com/2017/04/colombias-indigenous-arhuaco-awarded-500-hectares-in-ongoing-bid-to-regain-ancestral-lands/.

En marcha Alpha y Beta, las eólicas más grandes del país. (2022, April 12). *Portafolio.* Retrieved February 9, 2024 from https://www.portafolio.co/economia/finanzas/en-marcha-alpha-y-beta-las-eolicas-mas-grandes-del-pais-564027.

Enel Green Power. (2022, May 22). *Así funcionará el Parque Eólico Windpeshi en el departamento de la Guajira.* . Retrieved February 9, 2024 from https://www.enel.com.co/es/prensa/news/d202205-parque-windpeshi-guajira.html.

Enel Green Power. (n.d.). *Enel Green Power, conduciendo hacia el futuro de la energía sostenible.* Retrieved February 9, 2024 from https://www.enelgreenpower.com/es/quienes-somos/la-empresa.

European Commission. (n.d.). *The European Green Deal.* Retrieved February 13, 2024 from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en.

IUCN. (2013, November 14). *Scientists identify the world's most irreplaceable protected areas*. Retrieved Febrary 12, 2024 from https://www.iucn.org/content/scientists-identify-worlds-most-irreplaceable-protected-areas.

La Sierra Nevada, El dishielo y la cuna de una civilización milenaria (n.d.). *Semana.* Retrieved February 18, 2024 from https://especiales.semana.com/agua-bendita/sierra.html.

Ministerio del Interior. (n.d.) *Proceso de consulta previa.* Retrieved February 12, 2024 from https://www.mininterior.gov.co/proceso-de-consuta-previa/.

ONIC. (2017). *Los 365 días deben ser para hornar y liberar a la Madre Tierra*. Retrieved February 9, 2024 from https://www.onic.org.co/comunicados-onic/1778-los-365-dias-deben-ser-para-honrar-y-liberar-a-la-madre-tierra.

ONIC. (2023). *Concluyo audiencia del caso U'wa vs el Estado colombiano*. Retrieved February 9, 2024 from https://www.onic.org.co/noticias/4594-concluyo-audiencia-del-caso-u-wa-vs-el-estado-colombiano.

ONIC. (n.d.-a). *Nuestra Historia*. Retrieved February 9, 2024 from https://www.onic.org.co/onic/143-nuestra-historia.

ONIC. (n.d.-b). *Misión.* Retrieved February 9, 2024 from https://www.onic.org.co/onic/mision.

Osorio Granado, M. (2019, December 25). ¿Por qué se agudizó la violencia en la Sierra Nevada?. *El Espectador.* Retrieved February 9, 2024 from https://www.elespectador.com/colombia-20/conflicto/por-que-se-agudizo-la-violencia-en-la-sierra-nevada-article/.

ProSierra. (n.d.-a). *Un ecosistema único en el mundo.* Retrieved Febrary 12, 2024 from https://www.prosierra.org/.

ProSierra. (n.d.-b). División político administrativa. Retrieved Febrary 12, 2024 from https://www.prosierra.org/index.php/la-sierra-nevada/la-sierra-parte-1/division-politico-administrativo.

Quiroga Rubio, L. (2023, May 25). Enel Colombia suspende indefinidamente construcción de parque eólico en La Guajira. *El Tiempo*. Retrieved February 9, 2024 from https://www.eltiempo.com/economia/sectores/enel-colombia-suspende-indefinidamente-construccion-de-parque-eolico-en-la-guajira-771379.

SEO BirdLife. (2012, August 6). *SEO/BirdLife manifiesta su preocupación por el anuncio de nuevos parques eólicos en la Reserva de la Biosfera de Bardenas Reales (Navarra).* Retrieved February 9, 2024 from. https://seo.org/seobirdlife-manifiesta-su-preocupacion-por-el-anuncio-de-nuevos-parques-eolicos-en-la-reserva-de-la-biosfera-de-bardenas-reales-navarra/.

SEO BirdLife. (2013, Febrary 21). *Los parques eólicos marinos requieren una estricta planificación y evaluación de impacto ambiental.* Retrieved February 9, 2024, from https://seo.org/los-parques-eolicos-marinos-requieren-una-estricta-planificacion-y-evaluacion-de-impacto-ambiental/.

SEO BirdLife. (2018, March 21). *Nuevo varapalo judicial al complejo de 20 parques eólicos ubicados en zona de reproducción del urogallo cantábrico.* Retrieved February 9, 2024 from https://seo.org/nuevo-varapalo-judicial-al-complejo-de-20-parques-eolicos-ubicados-en-zona-de-reproduccion-del-urogallo-cantabrico/.

SEO BirdLife. (2021, November 4). *Valoramos que el Gobierno Vasco haya desestimado dos parques eólicos por ser contrarios a la conservación de la biodiversidad.* Retrieved February 9, 2024 from https://seo.org/valoramos-que-el-gobierno-vasco-haya-desestimado-dos-parques-eolicos-por-ser-contrarios-a-la-conservacion-de-la-biodiversidad/.

Treccani. (2021). *Transizione ecologica*. Retrieved February 12, 2024 from https://www.treccani.it/vocabolario/transizione-ecologica_%28Neologismi%29/.

UNESCO. (2020). *Sierra Nevada de Santa Marta Biosphere Reserve, Colombia*. Retrieved February 9, 2024 from https://en.unesco.org/biosphere/lac/sierra-nevada_santa-marta.

UNESCO. (2023, April 14). *Indigenous communities engage in protection of Colombia's Sierra Nevada de Santa Marta and Tayrona National Parks*. Retrieved Febrary 12, 2023 from https://whc.unesco.org/en/news/2548.

World People's Conference on Climate Change and the Rights of Mother Earth. (2010). Wordpress. Retrieved February 13, 2024 from https://pwccc.wordpress.com/support/.

WWF. (2021). *El 91% de los territorios de pueblos indígenas y comunidades locales están ecológicamente en buen estado.* Retrieved February 9, 2024 from https://www.wwf.org.co/?367310/El-91-de-los-territorios-de-pueblos-indigenas-y-comunidades-locales-estan-ecologicamente-en-buen-estado.

Zalabata, L. (2006, January 13). Pueblo Arhuaco Sierra Nevada de Santa Marta. Manejo de la seguridad alimentaria en medio del conflicto armado. *Grain.* Retrieved February 9, 2024 from https://grain.org/es/article/3722-pueblo-arhuaco-sierra-nevada-de-santa-marta-manejo-de-la-seguridad-alimentaria-en-medio-del-conflicto-armado.

Zapata Quinchía, A. (2022, January 22). Entró en operación Guajira 1, el parque eólico más grande de Colombia. *El Colombiano.* Retrieved February 9, 2024 from https://www.elcolombiano.com/inicio/ya-funciona-guajira-1-el-parque-eolico-mas-grande-de-colombia-OD16407382.