Unveiling Green Neocolonialism in Madagascar:

A Case Study of a Malagasy Company's Carbon Offset Project in Mahajanga

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01 August 2024

A thesis submitted to the Board of Examiners in partial fulfilment of the requirements of the degree of Masters of Arts in Conflict Studies and Human Rights

Utrecht University

Supervisor: Dr. François Lenfant

Date of submission: 01 August 2024

Program Trajectory: Thesis writing (15 EC) & Internship (15 EC)

Word count: 16061 words

The photograph on the cover shows the villagers employed by Bôndy going on the plantation site. Source: Bôndy's website.

Abstract

With its unique biodiversity and socio-economic challenges exacerbated by climate change and colonial history, Madagascar offers a critical case study for examining how contemporary environmental initiatives may perpetuate unbalanced power dynamics despite promoting sustainable practices. This thesis focuses on applying global environmental policies by local actors in underdeveloped countries, explicitly analysing the impact of a mangrove reforestation carbon offset project in Mahajanga led by the social enterprise Bôndy. Drawing on the conflictual aspects of political ecology theory and previous research linking environmental destruction to colonialism and racism, this research aims to assess whether the mangrove project reflects green neocolonialism in Madagascar. It defines three criteria for green neocolonialism—economic dependence, political dependence, and environmental improvement—and uses interviews, field observations, and a review of literature and case studies to evaluate the project. The study concludes that, despite its limitations, Bôndy's project aligns more with green capitalism than green neocolonialism. It seeks profits from environmental activities while pursuing sustainable initiatives, yet concerns remain about economic fairness and diversification. Indeed, the project's positive effects on the local community, including environmental benefits, community engagement, and employment, prevent it from being classified as green neocolonialism. However, the research highlights the need for greater transparency and impact measurement in carbon offset projects. This thesis encourages further application of green neocolonialism criteria to other projects in underdeveloped countries to challenge its findings and develop a deeper understanding of power dynamics in these contexts.

Keywords: green neocolonialism, carbon offsetting, global environmentalism, green capitalism, dependency, Madagascar.

Acknowledgments

I would first like to thank the professors of the Master's program in Conflict Studies and Human Rights for their inspiring teaching, which has reinvigorated my dedication to a career in human rights protection. I am particularly grateful to Dr. François Lenfant, who taught me a lot about the work of a researcher and helped steer me back on track when I was getting too passionate about my research topic. Thank you for the comments and encouragement.

I could not have written this thesis without the support of the Research Centre for Development at the Catholic University of Madagascar, which took me on as an intern. The Centre opened the doors to my fieldwork, accompanied and supported me on-site. Special thanks to my supervisor, Frederique Andriamaro, the researchers, and research assistants, who were always available to answer my questions and teach me more about Madagascar.

I also wish to thank the Bôndy team for their responsiveness and for allowing me to investigate their mangrove project. Thank you for your hospitality in Antananarivo and Mahajanga, and for contributing to research an issue that deeply interested me.

Special thanks to my family in France and Madagascar, who encouraged me to understand the dynamics of power and the environment in Madagascar. Thank you to my mother, my grandmother, and my cousin Davio for reminding me where I come from.

Finally, my endless gratitude goes to fellow students Maÿlis, Yousef, Mohamed, Sophie, Miriam, my friends Amandine, Thomas, and my mentor Fanny Accot, who accompanied, supported, and encouraged me during my fieldwork and the writing of this thesis, while providing valuable feedback.

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List of abbreviations

CSR - Corporate Social Responsibility

CSO – Civil Society Organisation

IPCC - Intergovernmental Panel on Climate Change

NEAP - National Environmental Action Plan

4P - Paris Pact for People and the Planet

Chapter 1: Introduction

The 21st century presents two significant challenges: climate change and the loss of biodiversity (Havlík et al., 2024; BMU, n.d.). Climate change, a lasting modification of weather conditions from the tropics to the poles, poses a global threat to various sectors, including social, economic, political, and cultural aspects, as well as the degradation of the biosphere (Shivanna, 2022). International actors have agreed upon goals, principles, or procedures to guide decisions and actions addressing specific environmental issues, known as global environmental policies (Bernstein, 2022). In an era of growing globalisation when many environmental issues cross national borders and necessitate international collaboration for solutions, these policies are especially crucial (WGI, 2024). Global environmental governance, characterised by "liberal environmentalism," has been institutionalised through processes such as the 1992 Earth Summit, aiming to protect the environment while promoting capitalist economic development (Berstein, 2022). Global environmental policy addresses several issues: sustainable energy policy, climate protection, maintenance of biological diversity and the conservation of forests, seas, and soils (ibid). Additional related topics encompass sustainable waste control, desertification, and protection against risky substances (ibid).

However, post-colonial scholars view the relationship between capitalism and global environmentalism as inherently contradictory (Barad, 2022; Bhambra, Newell, 2023). Indeed, according to Feola (2020), the history of Western capitalism and its environmental colonialism has produced the very conditions it now seeks to mitigate. In 2021, the Intergovernmental Panel on Climate Change (IPCC) highlighted in its 6th report that the consequences of colonial and slavery history have resulted in the Global South being disproportionately affected by climate change, despite having contributed the least to it historically.

To explore this debate, this thesis will analyse one the environmental projects of the company Bôndy based in Madagascar. Founded in 2019, Bôndy was born from the meeting of three individuals who grew up in Madagascar and were able to identify the socio-economic and environmental challenges of the country. Noticing the absence of private actors in the field of reforestation, they seized the opportunity to develop economic models in this sector. Bôndy's business model is based on three pillars rooted in Corporate Social Responsibility (CSR), a business model where companies incorporate social and environmental considerations into their operations (HEC Paris, n.d.). The first is the reconstruction of ecosystems and landscapes within the carbon credit framework, where Bôndy operates carbon-oriented projects, such as tree planting. The second pillar concerns consulting and finance, particularly in accompanying regulatory and financial mechanisms and recommending "ethical" and "exemplary" carbon devices. Finally, the third pillar is to create inclusive and sustainable agricultural sector activities such as honey, raffia, and silk. For example, Bôndy practises beekeeping in its areas of intervention, trains beekeepers, sells honey, and makes profit from this activity. The restoration of ecosystems and landscapes enables the development of inclusive and sustainable agricultural sectors. Both contribute to carbon sequestration, creating a virtuous circle.

Specifically, this thesis examines a carbon offset project that Bôndy initiated in 2021 on the outskirts of Mahajanga, located in the northwest of Madagascar. It focuses on replanting mangroves lost to climate change and deforestation. From conception to planting and supervision, this project primarily involves local actors. However, it is largely funded by foreign companies partnering with Bôndy as they seek to offset their pollution. Carbon offsetting aims to counterbalance a certain amount of greenhouse gas emissions (McConnel et al., 2024; Bôndy, 2024; Les Amis de la Terre, 2023). There are two possible actions: either by extracting some of the existing carbon dioxide from the atmosphere or by stopping future CO2 emissions from entering the atmosphere (Serin, 2023; Mulligan et al., 2023; Guireaudin, 2023).

A carbon offset project is almost always associated with a carbon credit. Carbon credits are documents certifying that someone, somewhere, has removed or avoided 1 tonne of carbon dioxide equivalent from the atmosphere (tCO2e) (Climate Impact Partners, n.d.).

For this research, the project will be analysed through the lens of green neocolonialism. The term "green neocolonialism" is not yet a widely recognised or standard concept within academic circles. It means to conceptualise how wealthier, richer, actors often impose certain environmental policies or practices on less developed ones, often with the stated aim of protecting the environment. They however may have negative impacts on local populations or economies (Lijfering et al., 2023, 16). Therefore, these environmental policies or practices refer to the extension of colonial practices into the environmental domain (Arora, 2023).

1.1 Significance of the study

Madagascar, with its unique biodiversity and history of colonial exploitation, presents a critical case study for understanding how contemporary environmental initiatives, despite contributing to the implementation of virtuous sustainable practices, may perpetuate unbalanced power dynamics. Indeed, the island's environment has historically been exploited by colonial powers (Randrup, 2010; Crenn, 1995). Crenn (1995) emphasises that the perception of Madagascar as a unique space was exploited by foreign actors. Therefore, while Madagascar was a french colony, from 1886 to 1960, it exported what the colonial master couldn't produce on its primary territory (Malon, 2018). The island's natural conditions favour a wide variety of agricultural productions (Isnard, 1951). Thus, French agricultural domination relied on this diversity, developing polyculture, food and livestock farming. Industrial crops such as coffee, sugarcane, and oilseeds are also important (Randrup, 2010, 5). Cattle breeding has expanded in the island's West, Southwest, and Central parts (Koerner, 1968). Agricultural industries, controlled by a few large companies, have developed (ibid). This brings to mind the United

Fruit Company, which in the 19th century dominated the Honduran economy by practising the monoculture of bananas, which exhausted the soils and made the agricultural sector vulnerable (Pastré, 2024). This American company wielded considerable economic and political power, and represent a key example to understand neocolonialism in Central America (Lorenzana, 2008).

Today, even though Madagascar is a sovereign state, many countries are interested in it. Major international powers come to exploit the country's resources, especially mining, due to its geological wealth (Klein, 2022). Copper, cobalt, nickel are needed by foreign actors to transition from fossil fuels to renewable energies, in the context of global environmental policies (Hajer, Pelzer, 2018). This research focuses on how private actors engage with these policies to broaden the understanding of the concept of green neocolonialism to private actors from a Global South country operating within their country. Unlike the scientific view of the environmental situation, which seems apolitical, this thesis aims to reflect on the underlying principles and outcomes of "green neocolonialism" (Marseille, 2021). Studying Bôndy's mangrove project allows this research to look at this situation with a focus on the solution of carbon offsetting. Thus, by doing a case study on a malagasy company following global environmental policies in Madagascar, this research opens the debate on green neocolonialism and places it at the national scale.

This analysis is crucial as Madagascar, facing significant socio-economic challenges exacerbated by climate change, is also rich in biodiversity and natural resources (Harvey et al., 2014). In 2021, Madagascar was declared the first country to face a famine linked to climate change by the United Nations. In 2022, 75.2% of the national population was considered poor. In a country with 79.9% of the population living in rural areas and 55.5% in urban areas (World Bank, 2024), understanding the vulnerability of the almost 80% of the population who are farmers, particularly smallholders facing chronic food insecurity and lacking basic services like

drinking water and electricity, is crucial (Harvey et al., 2014, 4). Therefore, environmental, and social risks are numerous and alarming, as climate models for this century predict an increase in temperatures, precipitation, and the destructive force of cyclones (Weiskopf et al. 2021). These climate changes are likely to negatively impact agricultural productivity, increasing stress for farmers and affecting human health, infrastructure, and the availability of natural resources (Harvey et al., 2014, 9).

Regarding its environment, Madagascar, with its exceptional biological wealth and an endemism rate of 85%, finds itself in a situation of distress for both human and non-human life (Hufty et al. 2016). Indeed, Madagascar is a member of the "G-7 environmental," a group of countries with the greatest biodiversity in the world (ibid). Thus, there is a dual purpose in Madagascar of protecting the environment while economically growing. Understanding the implications of environmental projects in this context can shed light on the broader issues of equity, justice, and sustainability in global environmental governance. The current Malagasy government promotes resilience through high economic growth and environmental respect (PNA, 2021). It invests in climate change projects, embraces green growth, and sustainably manages natural resources (ibid). The government aims to counter capital flight and negotiate for Madagascar to receive a larger share of the revenues from the exploitation of its resources by foreign companies (Marilys Razakamanana, personal communication, April 24th, 2024). Civil society organisations (CSOs) fight corruption and the trafficking of protected species, denounce the appropriation of resources by government members, and demand the enforcement of the law and anti-corruption measures (Randriamampianina et al., 2020).

There's also a contradiction within environmentalism, where underdeveloped countries are expected to develop while protecting the environment, leading to the concept of green growth as a new development model (Demailly, 2014). However, the feasibility of combining development with environmental protection is debated, with some seeing it as the only solution

and others pointing out that it may mask structural inequalities (Büchs, 2019). Indeed, some studies, using post-colonial and post-structural theories, suggest that the push to preserve biodiversity could be driven by commercial competition for access to genetic resources (Jones, 2021).

This study addresses two of the most pressing issues of our time: climate change and biodiversity loss. By focusing on an environmental project in Madagascar, it contributes to the understanding of how these global challenges are being tackled in a country that is both highly vulnerable and critically important for global biodiversity. Moreover, the research sheds light on the historical context of colonial exploitation in Madagascar and its ongoing impact on environmental policies and practices. This topic is relevant in the global discussion on the environmental governance of developing countries. It contributes to the debate on the link between colonial past and contemporary environmental strategies. This approach encourages a non-Eurocentric view, emphasising the need to understand colonial history for a comprehensive worldview. It challenges the use of terms like “overdevelopped” and "underdeveloped" that are not considering colonial exploitation (Sajed, 2020).

The research findings contribute to illustrate the complexities of global environmental policies by revealing the complexities and contradictions in the relationship between capitalism, environmentalism, and colonialism, potentially leading to more equitable and effective strategies for tackling climate change and biodiversity loss.

1.2 Aim of the study

By examining an environmental project in Madagascar and look at its goals, funding, implementation, and outcomes, this thesis aims to assess whether it aligns with the characteristics of green neocolonialism, where environmental protection and conservation efforts may serve to maintain or reinforce colonial or neo-colonial relationships. The project is

situated in Madagascar, but the scope of the thesis will be more specific, as it investigates a project led by a Malagasy company.

In the specialised literature, the concept of green neocolonialism is explored beyond the mere intergovernmental context. Projects associated with green neocolonialism are not only carried out by former colonial states towards former colonised states, but also by other international powers that have grown wealthy since the fall of the Berlin Wall, such as the BRICS, Japan, Saudi Arabia, and other new international actors invested in development and environmental protection projects in Africa (Ziai, 2020, 130). These actors also include international institutions, multinationals, NGOs, and corporations (for example, Chinese investments in African infrastructure, reforestation programs supported by Western NGOs, or biodiversity conservation initiatives funded by private foundations) (Varnakomola, 2022).

These actors can also be local, implementing global environmental standards at the level of their country, region, or communities. This phenomenon is particularly interesting because it challenges the notion of green neocolonialism where the developed actors place undeveloped ones in a position of dependency (Albertini, 1980). Indeed, undeveloped actors themselves can initiate environmental projects that exhibit neocolonial characteristics (Sagoe, 2012). This is precisely what this thesis proposes to examine. It suggests moving beyond the limited framework of former coloniser and colonised countries, as well as the West-Third World dichotomy, to assess whether local environmental protection projects in Madagascar meet the criteria of green neocolonialism.

Therefore, the main question that will guide this thesis is: *how does the ongoing Bôndy's mangrove project in Mahajanga reflect green neocolonialism in Madagascar?* To answer this question, I drew upon the literature on "green neocolonialism" to define its criteria. Looking if the project I investigated fills up these criteria will allow me to state if it is a green neocolonial project or not. While there is no universally accepted set of criteria for green

neocolonialism, the concept encompasses three key characteristics: economic dependence, political dependence and the improvement of the environment. I conceptualise this criteria to make use of the data and cross them with other case studies.

This thesis follows the line of structuralism, which explains that conflicts in international and national dynamics can derived from the inherent violence within geopolitical, social, economic and cultural structures (Malešević, 2008). Moreover, for this qualitative research I make use of first-hand data through interviews, observations, articles and reports that revolve around the topic of ecological imperialism. This will help me to engage within the debate surrounding the use of the term neocolonialism, especially in a world where every state is sovereign and considered responsible.

The following chapter will analyse the academic debate around this topic and the analytical framework I formed to look at my case study. The third chapter will explain how the research was conducted and the considerations taken during the process. The fourth and fifth chapters will be the analytical analysis, the former focusing on the economic and politic depende criteria and the latter on the improvement of the environment. Finally, the last chapter will draw a conclusion on the analysis to see how Bôndy's carbon offsetting project can help in the understanding of the concept of "green neocolonialism".

Chapter 2: Academic Debate and Analytical Framework

This chapter explains the literature on global environmentalism, capitalism and neocolonialism and then connects it with the theory chosen to analyse the case study. The case study will be explored through the lens of political ecology to relate empirical data to theoretical ideas.

2.1 Literature review

The evolution of environmental policy has gone through three main phases: environmental protection, managed sustainable growth, and liberal environmentalism (Felli, 2014; Leipold et al., 2019). These phases have been marked by key events such as the Stockholm Conference in 1972, the Brundtland Report in 1987, and the Earth Summit in Rio in 1992, each reflecting an evolution of environmental norms (ibid). Several theories explore this evolution. On the one hand, Romain Felli (2014) examines liberal environmentalism in the context of neoliberalism, noting its shift from reconquest to neoliberal deployment, especially in climate change adaptation policies. He notes that these policies face criticism regarding financial and technological transfers to the Global South, risking the imposition of a moral responsibility on rich countries for environmental degradation. On the other hand, Antoine Heemeryck (2022) identifies two distinct ideological poles within environmentalism: the conservative pole, which prefers accommodations to deep changes, and the reformist pole, which criticises the incompatibility between combustion capitalism and species survival. The conservative pole dilutes responsibility by collectivising efforts, while the reformist pole highlights exogenous conflicts and contradictory interests underlying visions of nature.

Environmental policies sometimes face criticism regarding their effectiveness and impact on inequality. For instance, Heemeryck (2022) states that two of the most common criticism are green capitalism (defined as the commodification of nature for economic gain) and greenwashing (explained by Delmas (2011) as: “the intersection of two firm behaviours:

poor environmental performance and positive communication about environmental performance"). Heemeryck (2022) emphasises that supposedly ecological technologies have a concerning carbon footprint. He denounces the ethics of the commodification of the environment, promoting its financialization and justifying destructive activities in the name of environmental protection. This approach, according to him, leads to an unprecedented wave of appropriation, creating a global environmental apartheid and threatening living conditions for millions of people. Neoliberalism, green capitalism, and greenwashing are blamed for perpetuating environmental and social disasters (Greenwood, 2021).

Thus, both Romain Felli (2014) and Antoine Heemeryck (2022) highlight the need for a critical analysis of metabolic rifts and power relations in the context of increasing social, economic, and environmental inequalities. This politicised approach to nature, and this logic of domination and exploitation that structures contemporary social relations and the relationship with nature, does not seem new. Indeed, some authors trace its roots to the periods of great discoveries, slavery, and colonisation (Blanc, 2020; Ferdinand, 2019).

Victor Hugo, in his 1879 speech commemorating the abolition of slavery in France in 1848 said: "Take this land. Take it. From whom? No one. Take it from God. God gives the Earth to men. God offers Africa to Europe" (Le Monde, 2009). With this speech, he justified colonisation by asserting that Africa was uninhabited or populated by barbarians, a narrative used to legitimise European domination and exploitation. This paradigm was then perpetuated by European romantics and leaders like Roosevelt, who saw Africa as a refuge for endangered wildlife, blaming indigenous populations for environmental degradation (Blanc, 2020, page). From this, Guillaume Blanc (2020) theorises "green colonisation," suggesting that Africa's decolonisation did not alter this paradigm. According to him, Africa is still viewed as a natural sanctuary where endangered wildlife should be protected from the destructive actions of its inhabitants (Ibid, 54). He deems that post-colonial conservation efforts, such as safaris and land

use regulations, can reflect this continuation of colonial attitudes towards African nature (Ibid, 69). Nevertheless, it may be a radical position, as Maggie Duncan Simbeye (2020) states that today, African park guides are reclaiming safari-related tourism to better protect wildlife and flora (Christ, 2020). Moreover, safari is a necessary asset for African development, as tourism in Africa is expected to generate over 240 billion euros annually by 2030 (ibid.). In Madagascar, tourism is crucial for Madagascar's economy as it brings in foreign currency essential for our economic growth (Andriamasilalao, 2020).

Malcom Ferdinand highlights that environmentalism contributed to the vision depicting Africa as a virgin and depopulated land, a paradise without people, perceived only through Western thought (Ferdinand, 2022). Similarly, Guillaume Blanc (2020) supports this statement as he denounces the imposition of Western environmental standards in Africa, perpetuating a colonial legacy. This approach is based on the moral and ethical superiority of Western conservation practices and a disdain for local knowledge: “In the colonial period, the European rulers propagated that as the Africans had no culture and history of their own, it was their holy duty to civilise the native Africans” (Rahaman et al., 2017).

In Madagascar, early colonial scientists and naturalists incorrectly believed the island was fully forested before human arrival (McConnell, Kull, 2014). However, paleo-ecological studies and analyses of grassland communities have proven uncertainty that grasslands in the Central Highlands existed before human settlement, indicating that these landscapes are not solely anthropic (Dewar 2014; Vorontsova et al. 2016). This misunderstanding, along with a lack of focus on logging and commercial plantations during the colonial era, has led to an overstatement of the role of tavy (slash-and-burn agriculture) in Madagascar's deforestation narrative (Jarosz, 1993; Scales 2011; McConnell, Kull, 2014). French botanists in Madagascar recognised the unique flora and advocated for protecting different phytogeographic domains from the early 20th century (Saboureau, 1946; Langrand, Rene de Roland, 2018). In 1925, the

Parc Botanique de Tsimbazaza was created for scientific study of the island's flora, followed by the creation of the country's first 10 natural reserves. The colonial administration also continued and expanded state control over Madagascar's forests, prioritising access to valuable natural resources (Montagne, Ramamonjisoa, 2006).

On another note, Alfred Crosby (1986) highlights the environmental impact of diseases, deforestation, the slaughter of indigenous animals, and the introduction of European crops and livestock, as consequences of European intrusions after 1492 in Madagascar. Under colonialism, resource exploitation and the imposition of European agricultural practices damaged ecosystems, reduced soil fertility, and even caused desertification (Domíngez & Luoma, 2020). Some authors, such as Rice (2020, 82) stated that Madagascar was the scene of a campaign of biological warfare aimed at eliminating the cactus, a vital source of food for the inhabitants of the South, thereby consolidating French control and favouring salaried labour. Dispossessed populations often faced poverty and famine, and relationships between the environment, humans, and animals were broken (Domíngez & Luoma, 2020, 8). Consequently, contemporary environmentalist methods are deeply marked by the colonial legacy (ibid, 2020, 6). For these authors, the imposition of Western norms reveals a continuity of domination and exploitation patterns, highlighting the need for a more critical, locally-rooted and inclusive approach to environmental conservation.

To understand the sources of these international conflicts of interest, it is crucial to analyse the structural context surrounding them, as highlighted by Professor Mohammed Ayoob (2002). Since World War II, some countries, extend their power by controlling local governments or economies (Grieco, 2000, 18). The spread of socio-economic and political activity by former colonial powers aimed at protecting their interests (Ibid, 15). This phenomenon, very linked to the modernisation of our society through development was named neocolonialism, firstly termed by Jean-Paul Sartre, a French philosopher, in 1956, and also

used by Kwame Nkrumah in the African context during the decolonisation of Africa in the 1960's (Jindal, 2023).

However, neocolonialism does not reveal all aspects of domination. According to Preiswerk (1975, 62), with self colonisation, the subject partners voluntarily adopt foreign values and thought patterns, reducing the need for constraints from the dominant partner. This behaviour can also be a result of the soft power of prestigious nations, which, in a non-coercive manner, succeed in influencing other nations culturally and politically (Nye, 1990). Self-colonisation prolonged indoctrination has led to the internalisation of Western models, sometimes presented as local productions by some Africans, in the absence of valued cultural alternatives (Preiswerk, 1975, 63). Therefore, neocolonialism doesn't only focus on former colonial masters. Indeed, as companies and actors from former colonies and other developing countries also engage in practices that perpetuate neocolonialism, it is clear that the dynamics of power and exploitation are not limited to historical colonial relationships.

These criticisms echo the theories of the colonial fracture, which can be grouped into four main poles (Ferdinand, 2019, 250). The first pole concerns post-World War II anti-colonialism, focused on sovereign and statutory decolonization with independence wars or political autonomy (Veenendaal et al., 2015). Next, postcolonial thought constitutes the second pole, questioning the Eurocentric vision and representations of the formerly colonised. Thinkers like Achille Mbembe (2006), Frantz Fanon (1952), and Edward Said (1978), influenced by subaltern studies, see postcolonial thought as an invitation to decentre and disengage from Eurocentrism[1]. The third pole, decolonial thought, critiques the colonial imprint on thought categories, proposing epistemological decolonisation by overturning colonial ways of thinking about the world, existences within it, and its knowledge, attempting

[1] Eurocentrism can be defined as "an attitude, a conceptual apparatus, or set of empirical beliefs that frame Europe as the primary engine and architect of world history, the bearer of universal values and reason, and the pinnacle and therefore model of progress and development" (Sundberg, 2009).

to break free from the “coloniality of being” and the “coloniality of knowledge” (Maldonado-Torres, 2007; Lander, 2002) Finally, the fourth pole, a heterogeneous set, addresses the colonial fracture from the perspective of women from the Global South and racialized women, promoting a "feminism of decolonial politics" (Vergès, 2019). Although these poles integrate environmental aspects, the current evolution reveals an increasing need to incorporate environmental issues into political reflection on modernity, an aspect yet underrepresented (Ferdinand, 2019, 251).

The presented analysis led authors to consider a new discourse emerging from the complexity of environmental problems and the failure of current management approaches. Indeed, Claire Sagan highlights the need to use precise terms for appropriate and productive solutions, underlining the importance of overcoming capitalist hegemony (Sagan 2018, 5). For example, she questions the use of the term 'Anthropocene,' highlighting its link with the Homo Oeconomicus of the capitalist era, which leads her to propose the term 'Capitalocene' to describe climate change (Sagan 2018, 6). Françoise Vergès puts forward the intersectional notion of a "racial capitalocene", linking ecological destruction to colonialism and racism (Sagan 2018, 3). Decolonial ecology, is a theory that views nature as bearing a collective history, highlighting the suffering of colonised countries in the face of climate change and global neoliberal governance (Ferdinand, 2019). Decolonial ecology makes the colonial fracture the central issue of the ecological crisis, considering "colonial habitation" as a violent method of living on Earth, subduing lands, people, and non-human entities to the will of the coloniser (Chaillou et al., 2020).

Indeed, according to Malcom Ferdinand (2019, 166), ecological discourse did not emerge independently; it was born in a specific context marked by colonisation and imperialism, and participants were imbued with the colonial imagination. In his work, he describes colonial habitation in the Caribbean, as a way of inhabiting the Earth made of

plantation monoculture to serve the financial interests of a handful of men on earth (ibid, 63-75). This intersectional approach focuses on the reality of the social body, integrating historical, sociocultural, ethical, political, and economic dimensions while encouraging a debate on the environment as a social, political, and educational dimension and a tool of resistance (ibid, 345). It aims to highlight the structural problems of our societies, overturn dominant-dominated relationships, and unite social justice with ecological justice (ibid, 338).

2.2 Analytical framework

Political ecology offers a framework for conceptualising the leap beyond the Anthropocene towards a term that encompasses a greater reality. This theory considers the way in which humans, through politics, approach ecology and seek to transform society in a direction more in line with a global and intergenerational ecological vision (Sagan 2018, 3). I choose to analyse my case study through the lens of the theory of political ecology as one of its major challenges is understanding the causes of conflicts related to natural resources and the environment (Narain & Singh, 2017). In political ecology, it is common to combine various geographical levels of analysis, from local, national to global (Stonich, 2001). This theory aims to comprehend the issue of domination by major powers over less developed countries in the context of sustainable development (McManus, 2009). It involves examining the structure of our society on a global scale and identifying the conflicts that arise within it (Karlsson, 2015).

Michel Foucault's pivotal contribution to post-structuralism has significantly influenced discourse analysis in political ecology, revealing how social practices and discourses shape meaning, truth, and behavioural norms (Benjaminsen & Svarstad, 2009, 7). This has led political ecologists to examine how dominant discourses, often stemming from globalisation, shape environmental and development narratives, affecting policies and actions (ibid). However, it is crucial to consider the actors behind these discourses, since they continuously reshape and modify them (ibid).

Political ecology is also influenced by the work of Edward Saïd. Saïd, also influenced by Foucault, argued that any assertion, especially about other cultures, is ideological (Benjaminsen & Svarstad, 2009, 7). In his book The Orient (1978), he claimed that the West has persistently presented "the Orient" as inferior, thereby justifying colonisation (ibid). Saïd discussed the relationship between the West and Arab and Middle East countries, but postcolonial studies inspired by his work have expanded to other regions, analysing the expression of cultural and academic knowledge from the West as a reflection of Western political interests (ibid). Integrating Said's insights into this case study can provide a nuanced critique of the environmental project in Madagascar, examining the role of cultural representation, ideology, and political interests in shaping environmental discourse and practice.

A way to understand the conflictual structural aspect of the political ecology theory is through the use of the concept of green neocolonialism. To "neocolonialism," some thinkers, like Ramanujam (2021), add the adjective "green," to show that the exploitation of natural resources, conducted by any actor, rests on the assumption that progress is inseparable from the exploitation of forests, oil, and minerals. This logic of catching up and the uncritical conception of progress persists in general in Africa which obscures the fact that, for Bassey (2020): "progress as a continuum is an empty concept." This massive exploitation of natural resources contributes to pollution, even as the exploiting countries advocate for environmental protection, illustrating the inconsistency of their actions (Serrano et al., 2024). Green neocolonialism thinkers denounce the human and environmental exploitation that thrives on colonial, neocolonial, and neoliberal bases, emphasising the need for a more critical and sustainable approach to solving environmental problems (Ramanujam, 2021, 18). Thus, like Heemeryck (2022) and Felli (2014), green neocolonialism shows environmentalism's failure to address the root causes of environmental degradation, often linked to global capitalism.

To make sense of the concept of green neocolonialism, it is fundamental to look at the concept of dependency. According to Karam (2024, 201), countries like Madagascar are still underdeveloped mainly because of their dependence on capitalist countries. By tracing the sources of wealth of the rich countries, the concept of dependency explains that developing countries depend on rich countries which exploit their resources (Albertini, 1980). It goes further and indicates that rich countries cause dependence by destabilising the weak countries and causing them to be in need. Prebisch's structuralist theories in dependency theory suggest that economic growth in peripheral regions is nearly impossible due to a cycle of underdevelopment and debt caused by reliance on primary exports, which benefits wealthier core states at the expense of poorer peripheral ones (Caldentey, Vernengo, 2016, 10).

To conclude, this paper aims to contribute to the discourse of political ecology by examining how international and local companies, as well as governments, exert influence over developing countries through environmental initiatives. I aim to fill the research gap in the literature on the Anthropocene by investigating whether local projects within a former colony and undeveloped country can also engage in green colonialism. This approach shifts the focus away from the traditional examination of relationships between former colonisers and colonised countries, rich and underdeveloped states, and multinationals, to explore the applicability of the concept of green neocolonialism among domestic actors.

This influence can be understood through the lenses of the concepts of green neocolonialism and dependency. Indeed, the objective of this research is to look at how the ongoing mangrove project led by Bôndy can help rethinking the concept of green neocolonialism. This project is pertinent as authors argue that carbon trading and offset projects can perpetuate colonial relationships, as wealthier nations and corporations purchase carbon credits from projects in developing countries, potentially undermining holistic, sustainable and

inclusive development in the long run (Eberle et al., 2019). Bachram (2004) then refers to the concept of “carbon colonialism”.

The term "green neocolonialism" lacks a universally accepted set of criteria. Drawing upon the existing literature on the subject, this study develops a set of criteria to define what might constitute "green neocolonialism." The criteria are economic dependence, political dependence and improvement of the environment. This conceptual framework will serve as a basis for evaluating Bôndy’s project. This approach will enable a nuanced understanding of the dynamics at play in the Bôndy project and contribute to the broader theoretical discussion on green neocolonialism in the realm of political ecology. To end, the analytical framework will break down each criteria, providing an analysis of how they relate to the specific context of Madagascar and how they can be applied to the case study.

Economic dependence

Economic dependence occurs when an actor relies heavily on another for economic resources, trade, investment, or aid, creating a dynamic where the economy is influenced by external factors (Brewster & Girvan, 1973). In the context of green neocolonialism, economic dependence is examined through the lens of green capitalism, which integrates environmental concerns into capitalist economies using the green economy as a tool to boost profitability. Authors, such as Hamouchene (2022), contend that green capitalism can manifest as green neocolonialism when it prioritises the interests of wealthy nations and corporations over those of developing countries and the environment itself.

Economic dependence is illustrated in different green projects such as tourism, carbon projects, and exploitation of resources (Yanaizu, 2019). Through those projects, rich governments or companies are putting developing countries in a situation of economic dependence as they use their land for green projects (Ullah et al., 2023). Authors use the term “land grabbing” to explain how land and resources are appropriated for purportedly

environmental ends (Holmes, 2014). For instance, international investors are increasingly looking to purchase land for agricultural usage (Yanaizu, 2019). Indeed, over the last 20 years, upwards of 35m hectares of land in Africa have been leased to foreign investors by local governments (Toulemonde, 2021). In 2008, Daewoo, a South-Korean company negotiated a 99-year agreement to rent 1.3 million hectares of land in Madagascar (Ratsialonana et al., 2011). The deal was ultimately abandoned by Madagascar's successive government as it provoked opposition from civil society groups and local farmers (ibid).

The literature on green neocolonialism in Madagascar primarily denounces the appropriation of Malagasy land and resources by foreign actors, dating back to the colonial period. Farihead et al. (2013, 7) refer to this as "green grabbing." Land grab is a way for rich investors to control or own natural resources of a less developed country also by establishing protected areas, which can restrict local access and use of rights (Blomley et al., 2013). Galibert (2012) notes that land conflicts in Madagascar are central to its state fragility. Dispossession attempts for foreign firms contributed to President Marc Ravalommanana's downfall in 2009 and continue under President Andry Rajoelina (Galibert, 2012, 428). A new law in 2022 (n2021-016) threatens rural landowners, facilitating land grabbing and endangering 80% of the Malagasy population (von Anrep, 2022). This raises questions about state complicity, as conflicts align with global economic interests and the breakdown of clientelism[2].

Economic dependence can be linked with resource appropriation and economic exploitation of these resources (Hickel et al., 2022). For instance, international investors export a lot of Malagasy's natural resources. In 2022, Madagascar exported $46.1M in Refined Petroleum, making it the 119th largest exporter of Refined Petroleum in the world (OEC, 2022). Same year, the top exports of Madagascar are Raw Nickel ($929M), Vanilla ($583M),

[2] Clientelism is "the giving of material goods in return for electoral support", a system of non-market exchanges of goods and services between individuals with unequal resources (the "patron" and their "clients"), which operates outside of any legal framework (Lindberg et al., 2022).

Cloves ($309M), Cobalt ($224M), and Non-Knit Men's Suits ($152M). It exported mostly to the United States ($756M), France ($634M), China ($538M), Japan ($448M), and Germany ($162M) (ibid). Madagascar was the world's biggest exporter of Vanilla ($583M) and Cloves ($309M) (ibid). Many partners, such as China, Turkey, Japan, and Russia, are present in Madagascar, often under the guise of development aid. For example, China, the world's largest importer of tropical woods (82% of the global total by value in 2018), is also one of the main destinations for illegal exports of Malagasy rosewood (Ecofinpro, 2022). Additionally, in 2020, China imported nearly a third by value of the minerals exported by Madagascar, including chrome, zircon, and graphite (ibid). Russian economic ventures also focus on the Malagasy energy sector (Lalanne, 2023).

Yanaizu (2019) tries to understand why this economic dependency situation exists today and they draw three primary reasons. First, the current global food crisis triggered by high oil prices, financial speculation, and concerns over future food security, particularly among major grain importers like China and India, has led to the acquisition of foreign farmland to ensure sustainable food supply. Second, the high demand for biofuel as a climate change mitigation strategy, especially in countries like the United States and Brazil, has prompted multinational companies to purchase farmland in Africa for large-scale cultivation of biofuel crops. Lastly, changing consumer preferences in emerging economies, with a growing middle class favouring meat-based diets over traditional plant-based staples, have increased the demand for farmland to support more resource-intensive meat production. Moreover, the last few years the European Union has been increasingly confronted (partially stimulated by COVID-19 and the war launched by Russia in Ukraine) with their dependency on third countries (China in particular), regarding the importation of critical rare earths, and renewable energy sources in its entirety (European Parliament, 2022).

When investors finance green projects in underdeveloped countries, they inadvertently place these countries in a state of economic dependence on the rich countries or companies that fund them (McGowan, 1976, 25). This dependence can perpetuate cycles of inequality and hinder the autonomous development of underdeveloped nations (Farny, 2016). In this research, the investor of focus is a company engaged in corporate social responsibility. Bôndy offers businesses the opportunity to restore the mangrove forest in Mahajanga as a means to offset the carbon pollution of its partner firms, both international and Malagasy. To ascertain whether Bôndy's project meets the criterion of economic dependence, Chapter Four of this thesis will look at the economic operations of the project, as well as how Bôndy has appropriated the plantation land, thereby addressing the issue of land grabbing.

Political dependence

Economic dependence would not happen without political dependence. Environmentalism is global as it focuses on a planetary ecosystem governed by universal laws and drives a worldwide social movement that reshapes nations and individuals (Franck et al., 2000, 122). In the mid-to-late 1800s, the nature-society conflict shifted towards urban modernity's embrace of nature (ibid). The global environmental regime emerged in the late 19th century with a new view of nature and the growth of global organisations (ibid). World polity organisations expanded, leading to the United Nations, a global discussion forum (ibid). These trends established the foundation for a global environmental regime, backed by experts and authorities from key international players (ibid, 123).

In the late 1960s and early 1970s, various environmental crises led governments to create new environmental policies, aiming to balance growth and development (King & Mori, 2007, 8). They have been defined as "a set of principles and intentions used to guide decision making about human management of environmental capital and environmental services" (Roberts, 2004). Developing nations were slower than Europe, Japan, and the US to implement

such policies (King & Mori, 2007, 9). However, they eventually followed suit, often due to signing multilateral environmental agreements, pressure from international donors, or media campaigns by NGOs (ibid). Consequently, developing countries began with the strict standards of developed nations but lacked their experience in enforcing more attainable standards (ibid, 10). Nevertheless, the Paris Pact for People and the Planet (4P) currently advocates for the revision of the international financial system and the allocation of funds for ecological transition activities (4P, 2023). 4P principles aim to facilitate debt cancellations and restructurings. Moreover, the 4P principle states that countries shouldn't have to choose between development and environmental preservation, and are free to pursue their own transition strategies to meet Paris Agreement goals (ibid).

Madagascar for instance, would reconcile environmental and development goals, drawing attention from international, transnational, bilateral, and local actors for nearly two decades (Weber, 2021, 949). These patterns are not new since, as early as 1985, encouraged by the World Bank, the Malagasy government adopted a "National Conservation Strategy for Development" and launched the first "National Environmental Action Plan" (NEAP) in Africa in 1990 (Hufty et al. 2016). This pioneering 15-year project, initiated by the first "Environmental Program" (EP1) from 1991 to 1995, is over 80% funded by foreign sources (ibid). The United States, in particular, is a major investor in this project, earning Madagascar the nickname "the garden of the United States" (ibid). Madagascar is indeed one of the top recipients of biodiversity-related aid (Miller et al. 2013; Waeber et al. 2016). Madagascar also accepted the SDGs of the United Nations 2030 Agenda because it believed, like other countries, that it would compel the wealthiest nations to provide funding for its transition (Nature, 2023).

Some authors, such as Driessen (2003) call this dynamic eco-imperialism, as it seems to impose environmental policies, conservation strategies, or sustainability practices by more powerful nations or international bodies onto less powerful ones, often without sufficient

regard for local governance, culture, or economic needs. According to Nixon (2011), while sustainable development targets balance environmental protection, economic growth, and social equity it can sometimes be co-opted by neocolonial interests. Therefore, it may lead to projects that prioritise external economic interests over local environmental sustainability and community well-being (Duquette, 2020).

Other scholars suggest that political dependence in green neocolonialism can occur through local government complicity, involving elite capture and self-colonisation (Hamouchene, 2022). Elite capture, characterised by a few powerful individuals taking resources meant for the many, often appears as corruption, as captured by the Malagasy saying "alain'ndry zala" (the authority takes the money) (Taiwo, 2020; Zulfiqar & Moosvi, 2022). This phenomenon extends beyond mere corruption to self-colonisation, where the dependent partner adopts external values, behaviours, and thought patterns, making overt dominance unnecessary (Preiswerk, 1975). In Madagascar, this has resulted in the acceptance of Western models and ideas as if they were native, impacting environmentalism and conservation (Urfer, 2012).

Today, global discourses and decisions from Madagascar's capital, Antananarivo, impact human-environment relations in northern Madagascar (Gezon, 2006, page). In Ankarana, indigenous leadership has clashed with state and international authorities (ibid, page). Indeed, the Antankarana leader held a ritual in a cave within the protected Ankarana Massif without permission, challenging the conservation agency's authority over local rights to the forest (ibid, page). This illustrates green neocolonialism in Malagasy nature protection, highlighting the conflict between viewing land as a protected area or sacred land under local control.

Article 6.4 of the Paris Agreement, adopted in 2015 on the occasion of COP21, introduces a market-based system that enables the voluntary exchange of carbon credits produced from carbon removal and emissions reduction initiatives (IISD, 2024). This

process enables countries and companies to offset their emissions by investing in carbon reduction, avoidance, or removal activities in different locations (ibid.). Bôndy, as a company established with the aim of contributing to global environmental objectives, offers carbon offsetting solutions to its partner companies as part of their CSR efforts. While Bôndy's mangrove project is undoubtedly shaped by international environmental policies, a broader analysis of the company's role in this global context would divert the focus from the specific objectives of my case study. Instead, this case study will examine how Bôndy implements these global environmental policies, particularly in relation to the economic dependence criteria.

The improvement of the environment

Economic and political dependence allow for a project to take place. This last criteria is about how the project considers the environment. In the environment, this research will take two aspects into consideration: the recovery of nature, and the improvement of the situation of the local population.

One example of the mistreatment of the malagasy environment can be seen historically. The urban infrastructure in Madagascar's major cities, designed by French settlers, reflects a cultural insensitivity that prioritises colonial norms over local particularities (Randrup, 2010). Straight lines and geometric shapes symbolise rationality and progress, regardless of indigenous culture and nature (Taïbi et al., 2021). In Mahajanga, the grid pattern of neighbourhoods exemplifies this Eurocentric planning. These landscapes create a dichotomy between modernity and tradition, influencing socio-spatial dynamics in former colonies (Taïbi & El Hannani. 2020, 36). Colonial neighbourhoods face pressures like densification and gentrification, altering their environment and the decline of greenery in these areas shows a shift in attitudes towards colonial "heritage" (ibid.). For example, parks, public gardens, and tree alignments are generally in very poor condition, poorly or not maintained at all by public authorities after independence (Taïbi et al., 2021). Dead trees are not replaced, and parks and

gardens are degraded, except for a few emblematic spaces like the Tsimbazaza Park in Antananarivo, whose renovation is often initiated by associations or private actors who finance certain operations (TaÏbi & El Hannani. 2020).

There is a mismatch between the expected and actual use of public spaces. For instance, Tsimbazaza Park's entrance fee restricts its use for strolling. In Toliara, a colonial-era seaside garden and a grown mangrove have turned into wild public toilets and dumps, a fate shared by many green spaces. Urban development since independence has reduced vegetation in these spaces (El Faïz, 2000, 185). Post-independence, no Malagasy urban model was introduced, leading to development that rejects the colonial model but lacks a Malagasy alternative to meet local needs (Taïbi et al., 2021).

Bôndy intends to play a pivotal role in the sustainable restoration of coastal forest ecosystems through its extensive mangrove reforestation project in the Boeny region, located in the North-West of Madagascar. This responsibility extends to measuring the project's impact on biodiversity, which includes the diversity of species planted, the maintenance of local ecosystems, and the avoidance of monoculture to prevent disease and promote a healthy ecosystem. Furthermore, Bôndy must assess the ecological impact and carbon sequestration of its project. This involves evaluating the long-term carbon storage capacity of the trees and implementing methods to measure and verify the amount of carbon sequestered. Ultimately, Bôndy is tasked with ensuring the long-term sustainability of the project. This encompasses a long-term management plan to guarantee the survival of the planted trees and a continuous monitoring and maintenance program.

To evaluate Bôndy's perceived effects on the site and the local population, several aspects must be considered: local involvement in planning, implementing, and governing the project and potential displacement of local or indigenous peoples without proper compensation or respect for their rights (Lachnitt, Tilianaki, 2023, 28). Cultural sensitivity in integrating local

knowledge and traditions to prevent cultural erosion or conflict also needs to be considered, as well as fair benefit distribution, ensuring benefits don't primarily go to foreign stakeholders while locals bear the costs (ibid., 29). Finally, the promotion of long-term sustainable development, balancing conservation with social and economic needs is also an aspect to look at (ibid.). Examining the project through these angles will help to determine if the treatment of the local population aligns with the principles of green neocolonialism, and whether Bôndy can be considered a green neocolonial project.

Chapter 3: Research Design and Methodology

For this qualitative analysis I mainly used interviews and observations that I supported by data from journal articles that revolve around the topic of green neocolonialism and reports of the company on the mangrove project to try to answer the research question that guides my thesis: *how does the ongoing Bôndy's mangrove project in Mahajanga reflect green neocolonialism in Madagascar?* To do this I break the question into two sub-questions. Both cover the criteria of green neocolonialism: economic dependence, political dependence, and the improvement of the environment.

1. What is the economic relation between the carbon offsetting project led by a Malagasy company, its partners and the local community on site ?
    a. *How does carbon offsetting answer global environmental policies?*
    b. *What role does the project play in local community economic resources?*
2. What are the implications of the dynamic between the project, the planters and the nature for the overall success and sustainability of the mangrove restoration initiative in Madagascar ?
    a. *To what extent does the project protect the climate?*
    b. *How does the project involve the local community and work with them?*

3.1 Data sampling

To write this thesis, I developed a research method involving literature and documentation research, qualitative in-depth interviews, and direct observations. After gathering theoretical insights into the relationship between environment, climate change, and colonisation for an extensive literature review, I carried out two months of field research in Madagascar (Antananarivo and Mahajanga) from April to May 2024. This field research can be split into two parts.

In the first phase of my field research in Madagascar, I aimed to contextualise green neocolonialism in Madagascar by examining the island's history and its impact on current views of nature, foreigners, and lifestyles. I explored the persistence of French imperialism post-independence and the geopolitical changes after the Berlin Wall's fall, highlighting how new international powers influence development and environmental projects in Africa. This study reveals that imperialism in Madagascar shapes the use and perception of nature.

To address this issue, I conducted interviews, which I then cross-referenced with documentary and archival research. In total, I conducted six interviews with specialists: two economists and university professors, two mining and forestry engineers, and two history researchers, one of whom is also a former Minister of Education and Ambassador to Germany. All the interviewees were Malagasy, and the interviews were conducted in French at their workplaces, except for the former Minister of Education and Ambassador to Germany, whom I met at his home. Additionally, I also had explicit conversations for the thesis with ten Malagasy people, including students, civil servants, and professionals, who agreed to share their life conditions, knowing that their testimonies might be included in my thesis. However, deliberate off-the-record exchanges will not be considered in the thesis.

For the second phase of my field research, I focused on studying the link between the implementation of a project aimed at protecting the Malagasy environment and its impacts on the population and nature. I sought to understand the project's course, objectives, stakes, and limitations. I chose to work with Bôndy with a focus on their mangrove replanting project in Mahajanga, an area where the local population heavily deforests despite the dramatic consequences of mangrove loss for the planet.

I was able to interview members of the Bôndy organisation in Antananarivo: the co-founder, three employees based in the capital working in communication, partnerships, and the mangrove project. In Mahajanga, I also interviewed the local project manager and one of the

two technicians who showed me the planting sites and accompanied me to the villages where the planters live. Due to the short period of time I had on site, I was able to converse with eight planters, out of 216, at their homes. The interviews were conducted in Malagasy, with the project manager translating when needed. Consideration taken for the interviews: male and women, different ages. It is on this second part of my data gathering that I will focus on more for the sake of the research question.

3.2 Data analysis

In carbon offsetting projects, transparency and accountability conducted by rigorous research and monitoring are crucial for assessing the environmental and socio-economic impacts of projects on local landscapes and communities (VNV, 2023). Here are some examples of internationally recognized standards for certifying greenhouse gas (GHG) emission reductions: Verra (formerly known as VCS for Verified Carbon Standard), Gold Standard, Climate Action Reserve, and Social Carbon (Carbo, 2024). However, Bôndy, a company in this sector, did not disclose its analytical methods or provide data to substantiate its claims, raising questions about its operational transparency.

The lack of publicly available data from Bôndy raises questions about their transparency and data collection practices. The absence of reports hinders the assessment of fund allocation and project impact. If Bôndy has data but withholds it, this may suggest underperformance, as transparency is key to responsible initiatives. Alternatively, the lack of data might indicate flawed collection methods. Interviews indicate Bôndy gathers data but is reluctant to share it, highlighting power imbalances typical in green neocolonialism. This reluctance suggests their impact may not match their claims, warranting further investigation. This research will consider these issues when analysing the data.

The research question will be addressed through the analysis of Bôndy's work using data from interviews. Interviews with planters provided information on their tenure with Bôndy, their need for additional jobs, communication with the company, ability to make requests, and the benefits they receive from the project. Interviews with the Bôndy team in Mahajanga offered insights into project operations, supervision, and planter selection. Discussions with higher-ranking members in Antananarivo revealed their perspectives on the company's goals and their connection to the mangrove project. These exchanges help having a global understanding of the project and evaluate Bôndy's impact and the effectiveness of their communication with the planters.

This study used field observations to gain insights into Bôndy's carbon offsetting project. Visiting plantation sites showed the evolution of trees planted in 2021 and those planted more recently. On-site explanations clarified the planting process. The study also highlighted contrasts in working conditions between the planters' village and Bôndy's headquarters in Antananarivo. Villagers described improvements made since Bôndy's intervention, and observations included villagers fishing on the plantation grounds. The role of guards and their supervision by the project manager were witnessed, along with the close relationships between the project manager, Bôndy technicians, and the villagers. These observations reveal Bôndy's impact on the villagers' lives and highlight power dynamics between employees in Antananarivo and those in Mahajanga, as well as the planters. These insights help assess the project's socio-economic impact and economic dependency.

Finally, through the review of academic papers and journal articles, this study accessed a wealth of information pertinent to carbon offsetting projects. Specifically, case studies and comparative analyses are necessary in providing insights into the effectiveness of various project elements. When combined with the responses from interviews and field observations, these comparative analyses serve as a valuable tool for identifying similarities and differences

between the project under investigation and other carbon offsetting initiatives. This comparison is particularly focused on the two central criteria of this research: economic dependence and environmental improvement. Therefore, by examining how other projects have approached data collection and management, this study aims to understand the broader mechanisms of carbon offsetting projects. This is especially relevant in the context of Bôndy's apparent lack of data sharing or transparency, which presents a significant limitation. The comparative analysis will therefore help to unpack this limitation by offering a broader perspective on industry practices and standards.

3.3 Limitations of the research

My research has several limitations that are important to highlight. To start, regarding the choice of the project for investigation, the company Bôndy did not fully meet the criteria I had set. Initially, I had defined certain criteria for selecting my project, namely that it should be related to nature in Madagascar, involve either its exploitation (agribusiness, carbon projects, land grabbing) or its conservation (agroecology, ecology), and be conducted by an international group while involving the local population. However, all the organisations I contacted were somewhat reluctant to allow me to study their projects. One of my respondents even mentioned, “They seem quite hesitant about having an outsider study how they manage the project.”[3] This could imply a presumed guilt stemming from the colonial legacy, which prevents people from speaking openly. Consequently, and based on the short amount of time I had on the field, I had to choose the company to analyse by default. Thus, it is possible that other projects might fully confirm my hypothesis, but they are not accessible. Finally, because finding an organisation willing to collaborate with me took time, I could only choose one. I believe comparing multiple working methods might have been interesting too.

[3] Interview with Thomas, April 22nd, 2024.

Furthermore, concerning the limitations encountered during interviews with the Bôndy planters, my insufficient proficiency in Malagasy and the impossibility of accessing the site alone required me to be accompanied by the project manager, who acted as a translator when I struggled to express myself. Although a relationship of trust seems to have been established between the planters and their manager after several years of collaboration, I believe the presence of their boss while answering potentially critical questions about the company might have influenced their objectivity. Also, due

Additionally, my personal experience and testimonies from other researchers at the research centre where I interned suggest that Malagasy people, due to their culture, are not accustomed to giving their honest opinions about projects in public. They tend to align with the opinion of their interlocutor, responding with "everything is fine" or "it's a very good project" to please, thus masking their true opinions and criticisms, which they reserve for their close circle. Therefore, it is difficult to judge the sincerity of my respondents. Understanding this behaviour would be pertinent, and I encourage further research on the subject. In addition, due to not having access to Bôndy's reports on the project's progress since 2021, its socio-environmental impacts, or the methods used to measure them—either because they might not be doing it correctly, or they don't collect data—it constitutes a limitation to the discussion on green neocolonialism.

Furthermore, as Bôndy is the sole operator working on its sites, I was unable to locate other organisations or research that could have provided data on this area. The Ministry of Environment and Sustainable Development does not document the mangrove reforestation efforts by private actors either. While satellite images of the site are available for the present day on the internet, those for 2021 are not, thus precluding a visual comparison. It becomes very interesting to explore the reasons why access to these data was not provided. Meanwhile,

I believe it is possible to draw conclusions from the interviews conducted with the planters by cross-referencing their statements with other case studies on green neocolonialism.

3.4 Ethical considerations

To guide my research design, I considered several aspects for the integrity of my work. For instance, I ensure my work is free of plagiarism or research misconduct, and I accurately represent my results. As I gathered primary data from interviews and observations, I had to make sure of several ethical issues.

Firstly, I made sure of the voluntary participation of participants, meaning that they are free to opt in or out of the study at any point in time. I also make sure of the confidentiality of the participants that wanted to remain anonymous. Furthermore, as my first type of data gathering was centred around Madagascar's colonised past and its outcome on people's life today, I made sure to keep any potential psychological harm to an absolute minimum. Same goes for my second type of data gathering when I interviewed Bôndy's planters. I didn't ask too sensitive questions to make sure they were comfortable sharing their opinion on their work and conditions of living. Plus, as I used a translator to back me up during these interviews, I made sure by reviewing their recording that the translation was accurate.

In addition, for the first part of my data gathering, I made the purpose of my research very clear to my participants. However, during the second part, and for the sake of the objectiveness of my arguments, I omitted to specifically mention the aspect of green neocolonialism to the company I was investigating. I introduced my work as research on the development of green projects in Madagascar, their link to global environmentalism and national standards for long-term development.

Finally, as qualitative research is more prone to subjectivity in the interpretation of data, I have to acknowledge my own positionality. As I am half-french half-malagasy, I have always been interested in the ties between France and Madagascar, especially Madagascar's ongoing

poverty. This personal attachment to the subject may constitute a bias in my analysis of the data. Furthermore, despite being Malagasy and knowing the culture and language, locals saw me as a foreigner. I was well-received and everyone was friendly and open, yet I sensed a certain distance from my respondents. Therefore, I tried to work with my positionality by reflecting on it, asking for peer review on my paper, using several sources of data to cross-check my findings and work closely with Malagasy researchers who provided me with insights into the local context.

Chapter 4: Economic Dependence

This chapter will cover the characteristics of the criteria of economic dependency in green neocolonialism and see if Bôndy’s mangrove project fits them. Economic dependency refers to a situation where developing actors become reliant on richer ones through environmental initiatives or projects. This chapter will look at an overview of the economic ties between the different parties involved in the project. Then, it will focus on the concept of land grabbing that implies economic dependency for the local community living on the site to assess and apply it to Bôndy’s project.

4.1 Economic relations

The mangrove project is staffed by a dedicated team, including a project coordinator, a project manager based in Antananarivo, and teams from the green and blue economy departments, and carbon engineers who contribute indirectly to the project. In Mahajanga, the company operates on two sites and employs 216 planters, one project manager, two technicians, and six field guards. Bôndy's mangrove project involves nearly 50 partner companies, half of which are based in Madagascar. The planters are engaged on a daily wage basis, working approximately four days a month, contingent upon high tide conditions. They are paid 10,000 ariary per day, totalling 40,000 ariary per month (equivalent to €2.02 per day and €8.08 per month). In June 2024, the median salary in Madagascar was 22.52 euros per month, or 0.75 euros per day over 30 days (Floch, 2024). It can be concluded that although the daily wage of planters is 37% higher than the median salary in Madagascar (0.75 euros per day), their monthly salary remains less than the median salary.

Therefore, planters' monthly income suggests they may struggle to meet their needs every month, indicating persistent economic precariousness. Granted, all the planters interviewed noted an improvement linked to the financial aspect. However, out of 8 interviews (3.7% of the total of planters), two people added the criticism of a salary that is too low, and

one person abstained from responding on this topic. One person revealed that while Bôndy's wages help with food needs, they are insufficient. As Todisoa says: "We can say that my life is improving but not enough. I sell, and I cultivate."[4] Moreover, Salongo, another planter, expressed that the work is not continuous, leading to limited income: "If the work continues, it can solve our problems. But the work is not continuous, so we only get a little money".[5]

Two villages are directly involved in the restoration efforts, with the fokontany playing a pivotal role in identifying, based on Bônd'ys criteria, vulnerable individuals living near the plantation site for recruitment as planters. This collaborative approach ensures a balanced distribution of employment opportunities between the villages. According to Bôndy, the project has maintained and created sustainable jobs, with a total of 216 planters, including both individual planters and group leaders, being mobilised for the work. This flexible arrangement, while not constituting formal employment contracts, provides a valuable source of income for the villagers.

The neocolonial dependence model of economics, an indirect outgrowth of Marxist thinking, posits that development is mainly a consequence of the historical development of an unequal international capitalist system between wealthy and impoverished nations. (UNESA, 2019). In the context of Bôndy, the focus is on the interdependence between companies rather than countries. Bôndy, being a Malagasy company, collaborates with local and international partners. The co-CEO of Bôndy noted that while half of their partners are Malagasy companies, most of their income comes from international companies. Bôndy's reliance on international funding for its projects shows that these partners seek to offset carbon emissions, meet sustainability targets, or enhance their CSR profiles. It can provide boost economic growth and create jobs in areas with limited employment opportunities. It is the case here, as the local

[4] Interview with Tadisoa, May 15th, 2024.
[5] Interview with Salongo, May 15th, 2024.

community benefits from income generated by planting and maintaining vegetation that contributes to environmental goals. This creates a sense of dependence on international partners. Additionally, there may be a growing sense of dependence among the planters on Bôndy, as the company has introduced them to an environmental protection method that provides them with income, which could end once the project concludes and the trees are all planted.

Bôndy's economic resources solely come from corporate partnerships. In contrast, other projects, such as the reforestation initiative by the NGO La Fôret Retrouvée in Mahajanga, combine carbon offset projects with eco-tourism. This project offers volunteers a stay in a luxurious guesthouse, with airport shuttles, an eco-lodge experience at the plantation site, gourmet meals, and wellness sessions including massages and spa treatments. These are paid services that supplement the cost of the night's stay (La Forêt Retrouvée, 2024). Therefore, while some carbon offsetting projects in Mahajanga combine the protection of the environment and tourism probably in order to gain more money, Bôndy only focuses on the reforestation of the mangrove and doesn’t try to a make profit elsewhere. It shows the commitment of the company to its environmental goals and its commitment to community involvement and positive impacts for local populations by not implementing other things on the site next to the villages.

4.2 Land grabbing

Bôndy's tree planting project is conducted on land that belongs to Bôndy under a 30-year contract signed with the municipality. A renewable contract was also signed with the Regional Reforestation Directorate and the Environment Directorate in Mahajanga, renewed every five years. This arrangement ensures that while Bôndy has formal control over the land, the villagers still have access rights, respecting their subsistence needs and land rights.

The project's approach to land use is a significant departure from historical patterns of land grabbing and economic exploitation, which have often disregarded the rights and livelihoods of local communities (Yang, Ye, 2021). Bôndy's actions can align with the view that land acquisitions can be conducted in a manner that benefits both the community and the company, as suggested by Azadi et al. (2013). The concept known as the Porter hypothesis suggests that it is indeed possible to foster economic growth while ensuring the sustainable use of resources (Loiseau et al. 2016, 6). This hypothesis is significant as it posits the existence of mutually beneficial outcomes for both the economy and the environment (ibid.). According to Porter and Van der Linde (1995), environmental regulations can drive innovation among entrepreneurs, leading to enhanced business performance. This hypothesis contributes to environmental improvements and bolsters economic aspects, as outlined by Ambec et al. (2013) in the theory of environmental economics.

Moreover, Bloomberg (2021) reported that just 500 million hectares of land were available to plant new forests aimed at capturing carbon. These areas are also in direct competition with farming and the expansion of urban centres. The Bôndy project allows for securing the site to restore the mangroves and permit access to it by the villagers. With Bôndy, the land was truly conducive to an environmental project. It was necessary, even if we don't have the data to see the condition of the land beforehand; if we look at the data at the national level, then we understand that it's essential. According to the FAO, 3.6 million hectares of mangroves have been lost since 1980, representing 20% of the total global mangrove area (WWF, n.d.). Furthermore, the island has already lost 44% of its natural forests since the 1950s, and the rate of deforestation is accelerating (Cirad, 2019).

Therefore, securing land for environmental purposes and local communities is particularly important in the context of Madagascar, where land insecurity and conflicts are prevalent, exacerbated by the legacy of French colonial land management practices that have

persisted into the contemporary period (Razakamaharavo, 2023). Indeed, during the colonial period, French settlers appropriated land and enacted legal changes that limited Malagasy people's ability to own property (ibid.). Moreover, in contrast to cases like the Democratic Republic of Congo (DRC), where illegal land transfers and violations of conservation laws have been reported, Bôndy's project in Madagascar demonstrates a more conscientious approach to land use. The DRC case, uncovered by an investigation, serves as a cautionary tale of the potential abuses that can occur in environmental projects when proper legal and ethical considerations are not upheld (Lachnitt & Tilianaki, 2023, 7).

Bôndy's project, therefore, shows how environmental initiatives can be carried out in a way that respects local communities, adheres to legal frameworks, and contributes to sustainable development. This result is achieved by ensuring that the land used for the project does not encroach on local individuals' primary sources of livelihood, thereby avoiding the negative impacts associated with land grabbing and colonial exploitation patterns. Therefore, land grabbing does not seem to be an applicable criterion to Bôndy.

4.3 Bôndy through the lens of economic dependence

Bôndy's mangrove project seems to operate within the framework of green capitalism. Green capitalism allows corporations to engage in sustainable energy initiatives while pursuing profits from environmental activities (Fox, 2023). This model is a subset of neocolonialism, which involves capitalist actors dominating subject nations through international capitalism rather than direct rule (Britannica, 2024). The link between green capitalism and green neocolonialism is that carbon offsetting reinforces capitalism (Ziai, 2020), and carbon markets contribute to the commodification of ecosystems (Heemeryck, 2022).

On the surface, economic relations can seem like a win-win situation. The company achieves its business objectives, the international partners meet their environmental and CSR goals, and the local community receives financial benefits. However, the situation is sometimes

more complex. There are two factors to consider: equity and fairness of the economic benefits, as well as economic diversification.

First, the project must distribute the benefits fairly and ensure that the local community is not exploited. The wages paid to planters should be fair, and mechanisms should be in place to prevent any form of exploitation. The problem is that information on how the money received by Bôndy for the projects is redistributed is not accessible, either on the website or upon request to company members. Therefore, it is not easy to provide an answer to this concern. However, the project operates in a system in which Smith contends that, by enlarging markets and enhancing the division of labour, international trade amplifies the advantages for all parties involved (Hayes, 2024). In this case study, companies invest in the mangrove project, Bôndy channels funds into tree planting, compensates planters for their labour, and each participant gains from the arrangement. This concept echoes Ricardo's theory of comparative advantage, which, while challenged by the HOS theory's emphasis on country specialisation based on production factors, still holds significance for non-state actors (Croissard, 2005, 832). Moreover, the ability of international trade to increase the availability of goods and services in a country at any given time is attributed to its facilitation of buying from places where production costs are relatively lower (Caballero et al., n.d.). Therefore, it seems complicated to state that partner companies are taking advantage of Bôndy, who is also taking advantage of the planters as this dynamic revolves in a much larger system globally accepted.

Second, economic diversification is essential for the community and the region to ensure long-term resilience, as relying solely on environmental projects for income can be risky. Bôndy has a team that is supposed to work on this and implement what they call "social projects." However, there are still no concrete social projects that had been promised at the beginning of the project, as Jocel, the project manager in Mahajanga, explained to me. According to Jocel, Bôndy's social projects should have been the reason for the initial

improvement in the villagers' living conditions and helped the project progress well. With social projects that involve ongoing support for the villagers in their daily lives, it may become straightforward to raise awareness among the villagers. However , Jocel explains that still today, these social projects are still not being implemented. For example, the villagers have different skills; some women know how to make baskets. Bôndy could provide them with raw materials to make and sell baskets in Mahajanga. Also, Jocel noticed that the villagers had many zebus and travelled daily to Mahajanga (a two-hour journey) to sell milk. He thinks there should be a way to facilitate their travel. These projects are not being set up, despite requests from Jocel and the villagers, but there is no response from the Social Project managers at the headquarters in Antananarivo. This may show intentions of keeping the population dependent on Bondy and hindering projects approaching self-reliance.

With this in mind, economic dependency in green neocolonialism is often characterised by an imbalance of power, where the interests of external actors are prioritised over the sustainable development and self-determination of the dependent country or community. It can hinder the ability of these entities to pursue their own economic and environmental agendas, leading to a form of environmental and economic subjugation. The previous analysis highlighted that Bôndy contributes to the local economy by working with national companies and employing villagers to plant trees. In addition, regarding land grabbing, Bôndy is not putting any conflict in the area as it signed a contract with the government and the fokontany to possess the land but give total access to the villagers to use the resources on the land. Based on this analysis, even if the villagers depend on Bôndy for a certain income, it is not enough to say that the project satisfies the first green neocolonial project criteria.

Chapter 5: Improvement of the environment

The success of the mangrove restoration project in Madagascar will be reflected in its ability to protect the climate while fostering a supportive and sustainable relationship between Bôndy and the local community. This includes fair compensation for the planters, clear communication, and a shared understanding of the project's goals and the importance of their role in achieving them.

5.1 The rehabilitation of nature

Examining how Bôndy treats nature can help determine whether the project is an example of neocolonial environmentalism by looking first at the project's impact on the site's biodiversity, then its ecological impact related to carbon sequestration, and finally its sustainability.

The first characteristic focuses on the diversity of species planted, the maintenance of local ecosystems, and the avoidance of monoculture to prevent diseases and promote a healthy ecosystem. One of the four pillars of Bôndy's enterprise is to restore biodiversity and create habitats for wildlife in an area that saw 20% of its mangroves degrade over the past decades (Jones et al., 2016). The study site is situated in the mangroves of the Betsiboka estuary, specifically within the Bombetoka maritime swamp, which covers an area of 72,232 hectares (Andriamanantena et al., 2022). This ‘mega-mangrove’ is located near Mahajanga (ibid.). Bôndy operates on two plots named after the surrounding villages: Kabingo and Amparihimahisty. For the choice of land, Jocel examined the soil structure and the type of mangroves already planted to ensure consistency. Then, with his colleagues, he mapped the area to plan where to plant each type of tree on each plot.

They plant three types of trees: Rhizophora Mucronata, Avicennia Marina, and Ceriops Tagal. Bombetoka is home to six families of mangroves, including eight genera and eight species, three of which are planted in the project. The floristic study found that the maritime

swamp is home to many plant species, with 35 species identified from upstream to downstream, including eight mangrove families. Thus, while Bôndy respects the site's existing biodiversity, planting a diverse range of trees beyond mangroves could enhance biodiversity. Since 2021, Bôndy has recorded the planting of 1,162,444 propagules. However, while Bôndy's actions appear to consider the natural environment and protect existing biodiversity, these are only the company's claims. Without access to supporting reports, it is challenging to verify these statements.

The second characteristic of a carbon offset plantation project lies in its ecological impact and the carbon sequestration it enables. Mangroves are one of the most valuable resources for the livelihood of local communities and the national economy in Madagascar. However, a century of extensive exploitation of the island's rainforests and coastal mangroves has led to deforestation and alarming erosion rates. Bôndy aims to contribute to the sustainable restoration of these coastal forest ecosystems through its mangrove project. Nonetheless, since the Kyoto Protocol carbon credits have largely failed to curb global carbon emissions, which continue to rise (Duault, 2024). While ambitious, they need more oversight (ibid.). Critics consider weak legislative frameworks and flexible certification criteria issues (Datta, 2023). Empirical studies reveal that offset projects often fall short of claimed emission reductions, with only 12% of credits representing actual reductions (Probst et al., 2023, 7). The dominance of forestry and renewable energy projects in the market is met with scepticism about their effectiveness (ibid., 8). Neglected aspects such as leakage, sustainability, and co-benefits raise concerns about environmental integrity (Moore, 2024). Additionally, from 2015 to 2022, 81 climate-washing cases were brought against companies, with 65.4% occurring in 2021 and 2022, indicating a growing problem (Setzer & Higham, 2023, 4). As Bôndy doesn’t give access to its data, the company might fall into the same issues that those studies bring.

Moreover, the expected outcomes of Bôndy's project include carbon sequestration, stabilisation, preservation of coastal erosion, and retention of alluvial loads and pollutants (Bôndy, 2024). Bôndy's planting efforts are a response to deforestation. Unlike other projects that deforest by seizing land for their use, Bôndy's project starts with land that is already destroyed and attempts to repair it. In addition, Madagascar's forestland, estimated to cover 15.88% of the country's surface area in 2009, is diminishing every year. Since 2021, Bôndy has reforested 117 hectares, contributing to restoring these vital ecosystems. Mangroves, acting as carbon sinks by capturing 5 to 10 times more carbon than ordinary trees, are essential for offsetting the carbon emissions of their partners (Chatting et al., 2022).

The final characteristic is sustainability, which involves long-term management plans to ensure the survival of planted trees and a continuous monitoring and maintenance program. During my exchanges with Bôndy's team, they affirmed that they monitor the plantations as they commit to following these projects for five years and train and collaborate with partner farmers to maximise the survival rate of plantations. The company also commits to reporting key performance indicators and providing customised communication tools. However, since 2021, Bôndy has been vague about the long-term carbon storage capacity of the trees and the methods for measuring and verifying the amount of carbon sequestered. This makes assessing the project's ecological impact and carbon sequestration effectiveness challenging.

Therefore, I discovered in an article on their website that Bôndy collaborates with Greenstand, a U.S.-based non-profit, to provide companies visibility into tree-planting progress. Greenstand, which aims to reduce poverty by connecting reforestation stakeholders, aligns with Bôndy's mission of combining environmental and social impact. Bôndy integrates local communities into its projects, using Greenstand's "tree-tracking" app, a marketplace connecting green entities with clients for offsetting ecological impacts. The app links clients, producers, and green companies globally, offering real-time planted tree tracking, including

GPS data and planter information. Bôndy enhances monitoring through partner farmers and periodic geolocated tree photos, uploaded to Greenstand's verification platform. The tree tracker is designed for user-friendliness, including for illiterate users, to aid in data collection and tree species identification. However, Bôndy does not provide accessible data to verify the tracking system's impact. Furthermore, during my visit to the site, the technician noticed the condition of some trees, stating that they were sick. He then informed me that Bôndy had not yet taken any action against diseases.

It may be interesting to link Bôndy's project to the criticism made about carbon offsetting. Indeed, carbon markets encounter challenges such as a unified international framework for carbon credit standards and concerns about corporate greenwashing (Hongyan, Jeong Won, 2024). Despite efforts to improve standards, various independent organisations use different methodologies for assessment and verification. The Paris Agreement's Article 6 was expected to guide international carbon trading, but progress has been slow. Indeed, in 2023, the Guardian exposed that more than 90% of rainforest carbon offsets by the most prominent certifier are worthless. Research by Carbon Brief (2023) suggests that 43% of carbon-offset projects may overstate their emission reduction capabilities, casting doubt on their effectiveness. Additionally, the scale of these projects makes it difficult to monitor their progress effectively; for example, in a Peruvian tree preservation project, only 0.23% of plots were inspected by certification bodies. This lack of oversight compromises the principles of verifiability and permanence.

5.2 The development of the local population

A comprehensive environmental carbon offsetting project working on a community's land does not stop at the environmental impact but also considers how the community is included in the project. Examining the treatment of the population can help us determine to what extent Bôndy dominates them by looking at the presence of social benefits, the education

and awareness provided to the municipality, and the learning opportunities for the population on adapting to climate change.

In assessing the social benefits of Bôndy's mangrove restoration project, it is crucial to examine the creation of jobs for local communities, the integration of local cultural practices, and the provision of access to project-generated resources. During an interview, Jocel highlighted the indispensable role of the villagers, stating that without their involvement, the project's success would not have been possible. He emphasised their dual role as both beneficiaries and the primary labour force. Moreover, Bôndy's commitment to the villagers extends beyond mere employment; the company has also supported them with essential goods during times of need, such as distributing zebus and rice on the International Day of Hunger. This support reflects Bôndy's understanding of the villagers' living conditions and its impact on the project's effectiveness. In addition, when the project started, Bôndy constructed a football field in the village because the villagers asked for one. According to André, a planter, this helped create good relations with Bôndy’s members.

Moreover, the project's respect for local culture is evident in its approach to integrating local practices rather than imposing external values and methods. Before the project's inception, there was no tradition of tree planting in the area, and the villagers did not utilise the fishery resources associated with the mangroves. Instead, they engaged in deforestation for wood. Therefore, Bôndy's introduction of new methods did not displace existing ones but rather aimed to enhance the local environment and economy. However, the company's prohibition of deforestation, while necessary for the project's goals, did not come with immediate alternative solutions for the villagers' wood needs. It is crucial to note here that people working for Bôndy in the field are malagasy from Mahajanga. Thus, they are familiar with the land and do not adopt a posture of dominance but engage with other Malagasy planters on an equal footing.

The villagers have been granted access to the fishery resources generated by the project, such as crabs, shrimps, and shellfish, through agreements that recognize their rights despite the land's ownership by the fokontany and the region. The replanting efforts have led to the return of these resources, which had previously dwindled, bringing joy to the villagers who can now enjoy these benefits. Some planters have shown interest in the fishery's potential, requesting fishing equipment from Bôndy. Felicia, a villager, noted the environmental improvements since working with Bôndy:

> *The environment has improved because Bôndy has planted mangroves, and for fishing, we are fishermen ; and thanks to these mangroves, there are a lot of fish, crabs, and especially the protection of alahonko (a species of mangrove tree) has greatly improved to protect seafood. Because before seafood was very hard to find.*[6]

However, the company has been unable to fulfil this request due to the number of planters and the cost of the equipment. The findings that more than 70% of carbon-offset projects have been reported to cause harm to Indigenous people and local communities, as per a study by Carbon Brief (2023), underscore the importance of carefully considering the socio-economic impacts of such projects. Consequently, Bôndy's efforts to engage with and benefit the local population are a step towards mitigating these potential adverse effects.

An essential aspect of evaluating how a project interacts with the local population is its approach to education and sensitisation. This involves environmental awareness programs for local populations and training on sustainable natural resource management practices (Allgood et al., 2024). Raising awareness among local communities about preserving mangrove ecosystem is an expected outcome of Bôndy's project. Educational and sensitisation efforts can be empowering if they are designed to help local communities understand the project’s environmental benefits and how they can actively participate in and benefit from it. Otherwise,

[6] Interview with Felicia, May 15th, 2024. Alahonko means mangrove tree in Malagasy.

they may be indicative of green neocolonialism. A study on wind farm projects in India showed that 52% of projects certified to emit carbon credits would, in all cases, have been completed, with or without contributions from project owners. In this project, according to the planter André, company members working in Antananarivo visited the mangrove site three times to investigate the villagers' needs, how they work, and what Bôndy could offer them. However, I did not have access to these reports.

The mobilisation technique employed by Bôndy involves tangible actions. Before the official commencement of the project, the Bôndy team distributed flyers to the villagers, contrasting the initial state of the mangroves with their current condition. This helped the villagers realise the extent of the forest that once surrounded them, which has been degraded by deforestation for charcoal or house construction. Through this awareness-raising, Bôndy was able to engage the planters to work collaboratively. As

> *We didn't know how to cultivate mangroves before. But with Bôndy, we have learned how to cultivate them, and the villagers know the mangrove planting techniques, and they know what's happening on the land where the mangroves grow*[7].

This sensitisation is profound, as the path leading up to the planting was long, aiming to instil in the planters the understanding that they live there and must collectively care for nature. Expressly, entry to the site to cut down trees is prohibited, and the villagers, village chiefs, guards, and Bôndy technicians ensure compliance. The fine for deforestation is substantial enough to deter the villagers from cutting trees. Jocel explains that before the project, the villagers were not caring for the mangrove as they were cutting the trees for coal or material. However, after numerous awareness sessions, Jocel noticed that the villagers have a fresh new look toward the nature surrounding them, as Samebeto's testimony confirms: "I work with

[7] Interview with André, May 15th, 2024.

Bondy because Bôndy's goal is to make their village more beautiful. I want to do my best to make the village better"[8].

Moreover, the community is actively involved in designing and implementing the education and sensitisation work, which suggests a partnership approach. Some people in the village occupy different roles, such as the village's chief who shares tasks and encourages people to join Bôndy, or the group leader who ensures that the planters follow planting instructions. André is the village's chief and explained that the villagers gather thrice every month. During these meetings, they discuss the environment and collectively come up with ideas to improve the reforestation process. It is to believe that if they gather three times a month, people in the village are interested in the actions led by Bôndy and that the educational efforts work.

The educational and sensitization work should also contribute to the sustainable development of the local community. Suppose the project's efforts help the villagers to develop skills and knowledge that can be applied beyond the carbon offsetting project, promoting long-term sustainability and resilience. In that case, it is less likely to be seen as green neocolonialism. My observations lead me to state that there is meaningful community engagement throughout the project's life. As Lando confessed to me: *"Before, my life was not normal. Since Bôndy arrived, it is Bôndy who has helped me."*[9]

On top of that, developing resilience is one of the major challenges in Madagascar that Bôndy aims to address: 80% of the Malagasy population lives below the poverty line, according to the World Bank. Madagascar is one of the poorest countries in the world. However, no documents are provided by Bôndy to explain how this outcome is being implemented, whether it has already been worked on, and how it may have evolved.

[8] Interview with Sambeto, May 15th, 2024.
[9] Interview with Lando, May 15th, 2024.

Chapter 6: Conclusion

6.1 Research findings

To answer the central question: *How does the ongoing Bôndy's mangrove project in Mahajanga reflect green neocolonialism in Madagascar?,* this research first looked at the economic ties between the project, run by a Malagasy company, its partners, and the local community. Then, it considered how the interactions between the project, the villagers, and the environment could affect the project's success and the long-term health of the mangroves.

While Bôndy's project does not engage in land grabbing, it creates economic dependence for the local community. The project's economic model, which is based on international partnerships lacks diversification and may not fully support the sustainable development and self-reliance of the local population.

Indeed, Bôndy's tree planting project in Madagascar does not appear to be land grabbing. The project operates on land secured through legal contracts, ensuring that the local community retain access rights and their livelihoods are respected. This approach contrasts with historical land grabbing and exploitation in Madagascar, aiming instead for a balance between environmental restoration and community benefits. The project supports sustainable development and avoids the negative impacts of land grabbing, aligning with principles of environmental economics and the Porter hypothesis on the possibility of fostering economic growth while ensuring the sustainable use of resources.

Additionally, the project provides economic resources to the local community by employing villagers as planters. However, the planters are paid below the monthly Malagasy median wage, which suggests that they may struggle to meet their needs on a monthly basis. The project's income relies on corporate partnerships, with a dependence on international companies for funding. This model raises concerns about economic dependency. Finally,

despite Bôndy's commitment to environmental goals, the absence of promised social projects and economic diversification initiatives poses risks for the long-term resilience of the community.

On another note, the project demonstrates the potential for climate protection and environmental sustainability by restoring biodiversity and sequestering carbon by planting of mangrove species. However, concerns about transparency, long-term carbon storage capacity, disease management, and the project may, therefore, fall in the broader criticisms of carbon offsetting projects. Moreover, more than involving the villagers, Bôndy collaborates with them, working together to find tools to better protect nature. In addition to providing employment, Bôndy also supports the community with essential goods, and infrastructures. Nevertheless, the lack of accessible documentation on the project's impact on community resilience and sustainable development is a significant concern.

Based on the data analysis on the project’s impact on the rehabilitation of nature, the mangrove project seems to have several positive aspects that contribute to climate protection and environmental sustainability. Indeed, the company bases the project on the land they choose and, in this case, restores biodiversity by planting a variety of mangrove species, which is crucial for maintaining healthy ecosystems and providing habitats for wildlife. Additionally, mangroves are known for their high carbon sequestration capabilities, which can help offset carbon emissions and contribute to mitigating Bôndy’s partner companies’ pollution.

However, several concerns may limit Bôndy’s effectiveness in climate protection and environmental sustainability. First, the lack of transparency and accessible data makes it difficult to verify the project’s impact. This lack of transparency is a common criticism of carbon offset projects and raises concerns about potential greenwashing. Second, even if the project seems committed to monitoring and maintaining the plantations, uncertainty remains about the long-term carbon storage capacity and the methods used to measure it. Additionally,

the observation of sick trees without immediate action highlights doubts about the project's ability to manage disease which could threaten the survival and health of the mangrove forests. Finally, the project is not immune to the broader criticisms of carbon offsetting, including the absence of a unified framework for carbon credit standards, the questioning of corporate greenwashing that overestimates the effects of their planting projects and the effectiveness of these latter.

The mangrove project involves the local community by providing employment, supporting them with essential goods, and respecting local cultural practices. The project has granted villagers access to fishery resources, contributing to their livelihoods. Bôndy, in partnership with the villagers, has also implemented educational programs to raise awareness about mangrove preservation and sustainable resource management, empowering the community with knowledge and skills about plantation. The villagers are actively involved in the project, participating in regular gatherings to discuss environmental issues and contribute to reforestation efforts. Despite these positive engagements, the apparent impossibility to access documentation from Bôndy detailing the project's impact on community resilience and sustainable development may show unprofessionalism from the company and an underestimated interest in improving the local community.

To conclude, investigating whether Bôndy's mangrove project in Mahajanga exemplifies green neocolonialism reveals a complex interplay of local and international dynamics. Local projects, such as Bôndy's, are inherently less likely to meet the criteria of green neocolonialism due to their embeddedness within the community and their understanding of the local environment and population. However, these projects are not immune to broader international economic dynamics, which can lead to dependency between the villagers and Bôndy. Within this context, a degree of dependency can be observed, stemming from the general economic power dynamics at play. Moreover, political dependency is not a factor in

this case, as Bôndy is a private, non-state actor. As a social enterprise engaged in carbon offsetting projects, Bôndy aligns with emerging international models aimed at environmental protection by mitigating corporate pollution.

Thus, it can be concluded that, despite its limitations, Bôndy's project is more closely aligned with the concept of green capitalism than green neocolonialism. The project fits the definition of green capitalism, as Bôndy pursues sustainable initiatives while seeking profits from environmental activities. However, the project appears to distribute benefits to the company, international partners, and the local community, concerns remain regarding the fairness of the economic benefits and the lack of economic diversification for the community. Therefore, the project’s positive influence on the villagers, in terms of environmental impact, community engagement, land use respect, and employment opportunities, precludes it from being classified as green neocolonialism.

Furthermore, while Bôndy's mangrove project has the potential to contribute to environmental restoration and community development positively, a critical issue that requires attention is the need for greater transparency regarding their socio-economic and environmental impact measurements. Despite having teams dedicated to data collection before and during the project, Bôndy's research is not publicly disclosed which can be seen as greenwashing. Therefore, I advocate for further research into the reasons for the lack of transparency from companies engaged in carbon offset projects, to gain a comprehensive understanding of the issues surrounding this situation and to fully comprehend the Bôndy project's dynamics.

6.2 Contribution to research gaps

Research linking carbon offsetting projects to green neocolonialism is both recent and pertinent, offering insights into effective strategies for combating climate change and human inequalities. This analysis provided a comprehensive examination of the social, economic, and

environmental impacts of a Malagasy carbon offset project on the local community and its alignment with sustainable development goals.

Contrary to the seemingly apolitical scientific perspective on environmental issues, this case study utilised the concept of green neocolonialism to examine how a project aimed at protecting Malagasy biodiversity impacts local communities and the environment, thereby connecting the political, economic, social, and environmental elements studied in political ecology. This research also contributed to a deeper understanding of green neocolonialism by attempting to define its criteria and by analyzing how green capitalism can morph into green neocolonialism when richer actors exert indirect control through economic power, perpetuating inequalities and undermining the sovereignty of less developed regions. The impact of capitalism on the climate is undeniable, sparking debate in the Global North about its compatibility with reversing climate change. The connection between green capitalism and green neocolonialism is evident, given the colonial roots of the climate crisis: the United States and the 28 countries of the European Union are the historical biggest polluters, through colonial and imperial expansion. The Global South bears the brunt of the climate crisis and ecological destruction, exacerbating Western dominance in the neo-colonial global capitalist order. Even local solutions are framed within green capitalism, as globalisation and international norms adapt to allow for environmental protection and profit-seeking at the local level. Therefore, studying a company that may not be engaging in green neocolonialism opens up further research on power dynamics in the world system at different scales. It raises concerns about the authenticity of environmental initiatives and the potential for exploitation in the name of sustainability, thereby contributing to the academic debate on the complex interplay between environmental protection, economic development, and social equity.

6.3 Further recommendations

This study can be seen as part of the first steps into exploring green neocolonialism within projects located in underdeveloped countries involving local actors. Nonetheless, the findings should be approached with caution, given the limited data provided by the company regarding the measurement of their environmental and socio-economic impacts.

Future studies can build upon this research by applying the criteria of green neocolonialism to examine power dynamics and environmental impacts within countries, particularly in post-colonial and developing contexts. Then, by combining the data obtained by several studies, further research could contribute to developing new theoretical frameworks.

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