A thesis submitted to the Department of Environmental Sciences and Policy of Central European University in part fulfilment of the Degree of Master of Science

Environmental Justice and Defense of Territory: The Perspective of Women Defenders Against the Tren Maya Megaproject

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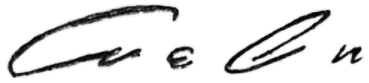

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ABSTRACT OF THESIS submitted by:
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for the degree of Master of Science and entitled: Environmental Justice and Defense of Territory: The Perspective of Women Defenders Against the Tren Maya Megaproject
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This research examines the implications of the Tren Maya megaproject on the Yucatán Peninsula from the perspective of decolonial environmental justice, emphasizing the role of women defenders of the territory. The Tren Maya envisioned to boost economic and touristic development, intersects deeply with Indigenous territories and cultures, particularly affecting the Maya communities. This research addresses how the project perpetuates colonial dynamics, imposing a Eurocentric model of development that disregards the holistic concept of territory intrinsic to Indigenous cosmologies. Through semi-structured interviews and field observations, the study captures the voices of Maya women, who face a dual colonization of their bodies and land. The findings highlight significant environmental damages, socioeconomic impacts, increased militarization, and gender-based violence linked to the project's implementation. The defense strategies employed by these women reveal a complex resistance against the threats posed to their territory and identity. By exploring the interplay between development discourses, environmental justice, and indigenous epistemologies, this thesis contributes to a broader understanding of the impacts of megaprojects on marginalized communities. It underscores the necessity of integrating Indigenous perspectives, especially the conception of territory, into environmental justice frameworks to ensure more equitable and sustainable development practices. The study's conclusions call for reevaluating development paradigms and advocating for the recognition and respect of indigenous rights and territories.

Keywords: Tren Maya, territory, defense of territory, women defenders, development, megaprojects, decolonial environmental justice.

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List of Abbreviations

AMLO: Andres Manuel Lopez Obrador

EJ: Environmental Justice

FPE: Feminist Political Ecology

GMT: Grounded Theory Method

POTR-SSE: Program for Territorial Planning of the South-Southeast Region

UNOPS: United Nations Office for Project Services

MIA: Manifestación de Impacto Ambiental (Environmental Impact Statement)

SDG: Sustainable Development Goals

SEDENA: Secretaría de la Defensa Nacional (Secretariat of National Defense)

1. Introduction

Mexico is characterized by extensive biodiversity and diverse communities, boasting abundant natural resources, delicate ecosystems and indigenous communities that preserve ancestral traditions and identity. For instance, the Yucatan Península is pivotal in contributing to Mexico's biological and cultural diversity. The region located in the south-east of the country, stands out for its unique ecosystems, including cenotes[1], karstic soil, wetlands and mangroves, which significantly influence regional hydrology (Conabio, 2023). Moreover, the states comforming the Peninsula, Quintana Roo, Campeche and Yucatan, hold the largest indigenous populations, mainly Maya, who uphold traditional lifestyles and beliefs with sustainable practices, adding cultural value to environmental preservation (Martinez, 2022).

However, the Yucatan Peninsula, like the rest of the South-Southeastern region of the country, is currently undergoing a significant development project—the construction of the Tren Maya. A railway initiative aimed at promoting tourism and economic development in the region. While connecting key tourist destinations and cultural and natural heritage areas, this project has sparked debates about its environmental, social, and cultural impacts (Blanco, 2023).

This project has given rise to instances of environmental injustice, particularly when development and extraction processes neglect collaboration with Maya indigenous communities. Rejecting the imposed affiliation with the Maya culture, members of these communities perceive the Tren Maya as a form of colonizing their land since they face

[1] From the Mayan word "dzonot" means "abyss." The soil of the Yucatán Peninsula, for its karstic attributes, water filters through the soil and dissolves it, creating caverns that can be partially or completely flooded. When the caverns collapse due to erosion, cenotes are formed. For the Mayan culture, cenotes were considered sources of life. Besides providing the vital liquid, they were an entrance to another world and a center of communion with the gods (SEGOB, 2023)

challenges such as forced displacement, food and water insecurity, and increased vulnerability to natural disasters. (Grain, 2020)

"The debate is not about having or not the train, but how we live our life." (ibid)

Models of development like the Tren Maya, follow colonial practices that have a strong impact on natural ecosystems and traditionally marginalized populations, such as indigenous communities, women, and especially indigenous women (Gasparello, 2020). These development discourses continue to impose a normalized and supposedly universal model based on Eurocentric narratives (Escobar, 2012). These discourses aim to exploit Mexico's vast natural environment, framed as the only viable solution and scientifically validated by institutions. Locally, the aim is to adapt these discourses to fit local conditions without considering alternative narratives.

However, what is intended to be developed is not simply a repository of resources. From the perspective of indigenous communities, what is sought to be exploited is their territory. For them, the territory is not just a piece of land with legal boundaries and property titles; it is a natural, social, and cultural space inhabited by both human and non-human beings with intrinsic value, coexisting in an interdependent and harmonious manner. It is the space where social dynamics are generated, and the identity and traditions of its inhabitants are rooted.

These territories continue to face colonization, both of nature and the people who inhabit them, under the guise of development, promising civilization and well-being. Considering the intersectionality of those who inhabit these territories, women face a dual colonization of their bodies and land linked to the development process. Indigenous peoples and women across the country and the region defend their territories against these practices to safeguard their ways

of life, identity, and traditions. Therefore, the problem this thesis seeks to address is the development and colonization of the territory through megadevelopment projects, specifically from the perspective of women defenders of the territory.

1.1 Aim and Research Questions

The present research aims to address the implications of development on the territory from the perspective of decolonial environmental justice through the case of the Mayan Train in the Yucatan Peninsula. This considers the mainly Eurocentric discourse of development and the concept from Indigenous cosmologies.

I. What are the implications of the Tren Maya in the Maya territory?
II. Additionally, what, if any, differentiated implications are faced by women in the territory?
III. How is the development proposal posed by the Tren Maya perceived?
IV. What does the defense of the territory against the Mayan Train consist of?

The significance of this research lies in using an academic forum to address a gap by directly capturing and shedding light on the perspective of the defense of territory, primarily from the Maya people of the region and specifically through the lens of women. It is noteworthy that other valuable perspectives from diverse actors are involved in the resistance against the train, such as environmental activists, politics, economics, social dynamics, scientific disciplines, and anthropology experts. However, this research, by focusing on the viewpoint of women defenders, seeks to enhance the scope of environmental justice starting from the concept of territory, thereby providing a unique and essential understanding of the impacts of the train and contributing to the broader discourse with insights that have been previously underrepresented.

1.2 Outline

This thesis is constructed of six chapters. The following chapter will present the case study of the Tren Maya to provide a comprehensive context. It aims to lay the foundation for understanding the complexities surrounding the Tren Maya megaproject and the controversies it has sparked as an example of the problem presented above.

Next, chapter three will present the key elements of the theoretical framework and literature review that help explain the case study. This chapter will begin by introducing Decolonial Environmental Justice as an overarching framework. Within it, the concept of territory is presented as a holistic key concept from the cosmology of indigenous peoples. Also, specific implications for women will be explored, highlighting how territorial struggles uniquely affect them. The chapter will then proceed to analyze the critique of development from a Latin American standpoint, examining the concept of megaprojects and their implications in Mexico.

Next, chapter four will outline the methods used for this research, emphasizing the importance of the perspective and cosmovision of the people involved in the defense of the territory and the understanding of the field. This chapter will detail the qualitative methodologies employed, including participant observation, semi-structured interviews, and their coding. It also discusses the ethical considerations and limitations of research.

Then, chapter five will present the findings and results of the perspectives shared by mainly women defenders, most of whom are indigenous, on how they have faced the Tren Maya. This chapter will be divided into three main sections based on the themes obtained through the data analysis. The first section will address the impacts of the discourse of development that accompanies the Tren Maya megaproject in the Yucatán Peninsula. The second section will

present the threats that the Tren Maya has posed to the territory of the Maya peoples due to the disruptions to their territory. The third section will explore the ways in which the defense of territory is carried out, highlighting the strategies and actions taken by these communities. Finally, chapter six will provide conclusions and recommendations, synthesizing the key findings of the research.

2. Case Study: The Tren "Maya"

The Tren Maya is a mega infrastructure project involving a mixed-use railway for passengers and freight, covering a route of 1,554 kilometers with 21 stations and 14 stops. Divided into a total of 7 sections, the corridor will pass through the states of Chiapas, Tabasco, Campeche, Yucatán, and Quintana Roo. Its objective is to promote the economic, social, touristic, and cultural development of the region (Muñoz-Ledo 2023).

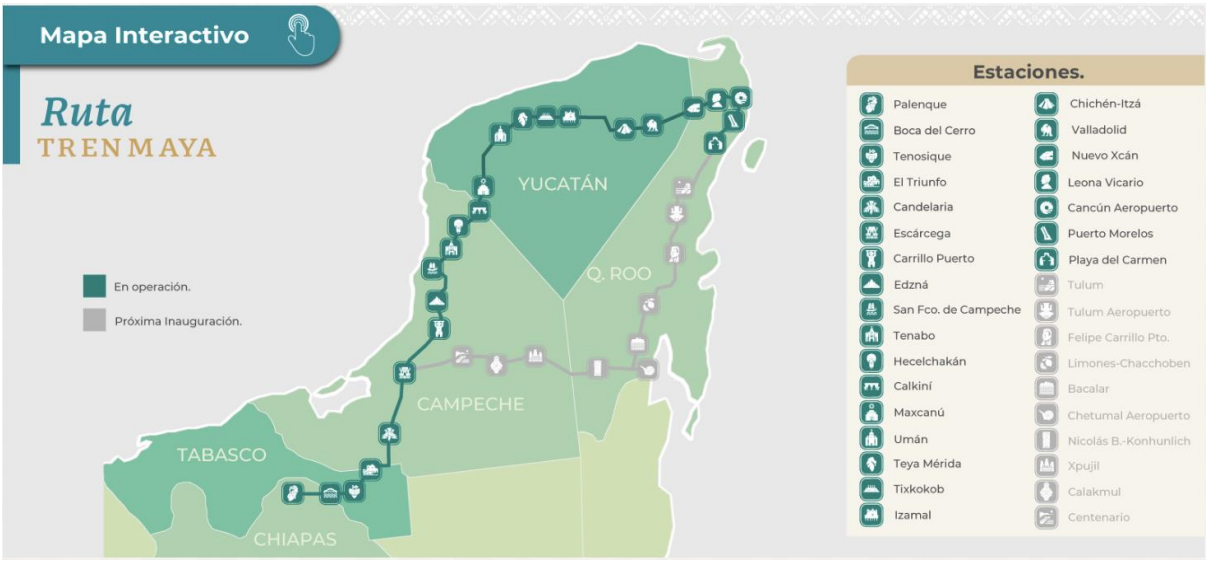

Figure 1 Map of the Tren Maya. Stations in green are operating and in grey will soon be open. (Tren Maya, 2023)

President López Obrador first introduced the Tren Maya initiative in 2018 and according to the official website, "El Tren Maya es la infraestructura ferroviaria más importante de México, que está impulsando el crecimiento económico y turístico del sureste. Su construcción cuenta con

los más altos estándares de calidad, seguridad, comodidad y tecnología de clase mundial" (Tren Maya, 2023). As a megaproject, it is a complex and highly-invested endeavor. Its total cost is projected to be 500 billion Mexican pesos (29.24 billion US dollars), which is three times more than the original budget presented in 2019 of 120 billion pesos (Daen and Nogueda 2023).

Additionally, as part of the POTR-SSE Programa de Ordenamiento Territorial de la Región Sur Sureste (Program for Territorial Planning of the South-Southeast Region), the train is one of the main gears driving sustainable urban development and reducing inequality through the use of resources, technology, and infrastructure. This plan aims to improve regional well-being, conserve cultural and natural heritage, and provide equitable access to services, reducing inequalities in the region by creating jobs, connecting tourist and archaeological sites, and bringing closer together remote areas within the five states (Meyer n.d.).

Specifically regarding job creation, a study conducted by UN-Habitat in 2020 reported that "by 2030, 715,000 new jobs will be created in the 16 municipalities with a train station (based on the initially proposed route), 150,000 jobs in the rural economy associated with the train, and 80,000 more with the construction of the first five sections in 2020" (UN-Habitat 2020). On the other hand, this project also involves social programs, among which the Sembrando Vida (Planting Life) program stands out. It serves both as a mechanism to mitigate deforestation caused by the construction of the train and to provide economic support to people in the region for the cultivation of fruit and timber trees (AMLO 2022).

Due to its magnitude and scope, it is expected to boost existing development industries in the region such as agribusiness, pig and poultry farms, renewable energy parks, tourism, and real estate. "This megaproject, in addition to being a rail transport service and tourist corridor, aims

to reorganize the peninsula and integrate other regions by promoting the energy industry, agribusiness, and technological development" (Castellanos Guerrero et al. 2021, 4). Moreover, this project is accompanied by at least 115 complementary works, including hotels, airports, real estate areas, archaeological sites, vehicular crossings, and other infrastructure works (AMLO, 2022).

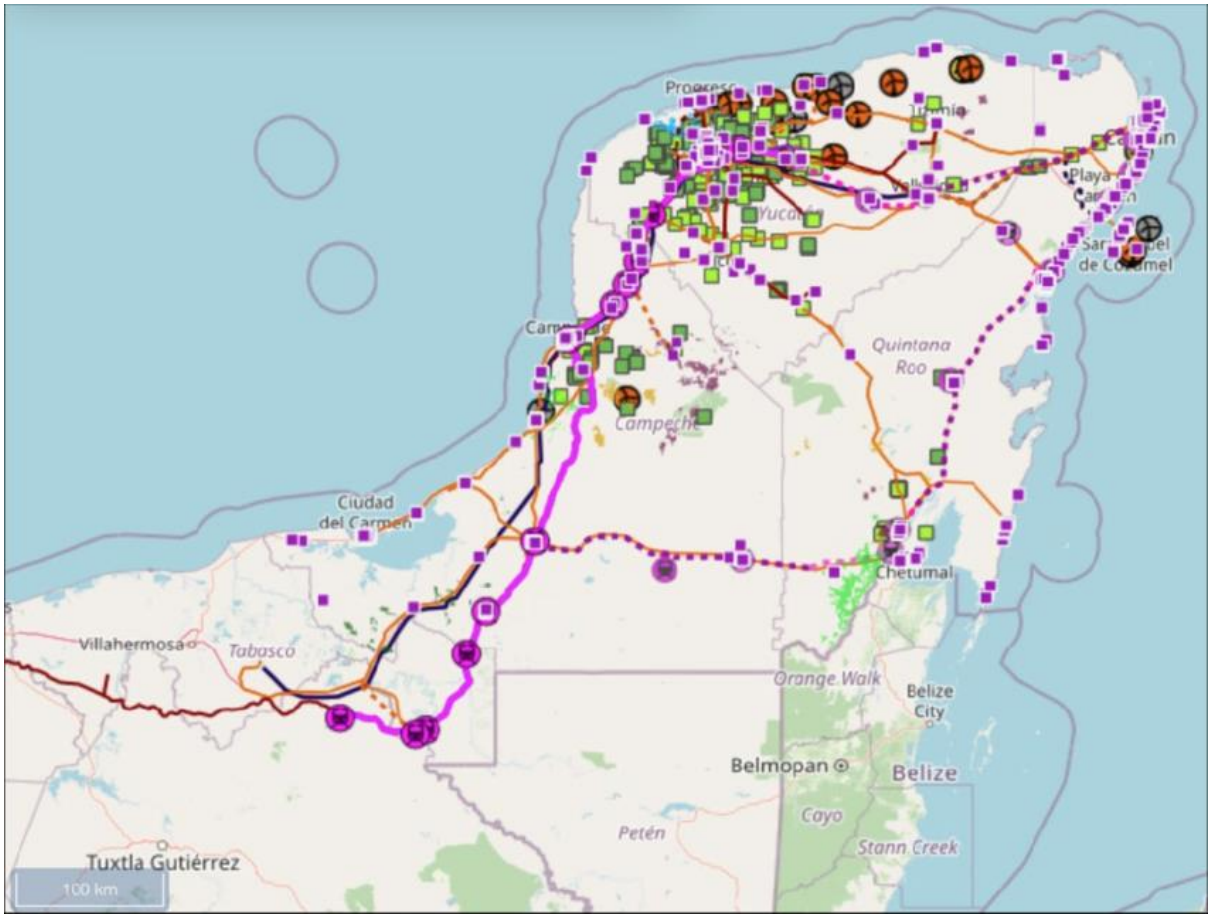

Figure 2 South East Mexico Map with the Tren Maya alongside livestock farms, clean energy plants, agro-industrial complex, and touristic developments. By Gpvern.

Apart from the economic benefits, it is presented as a sustainable project and part of the actions taken by the Mexican government to fulfill the 2030 Agenda. This is due to its comprehensive focus on economic, social, and environmental aspects. According to the official government discourse, this project aims to generate employment and promote sustainable tourism, boosting local economic growth (SDG 8: Decent Work and Economic Growth). Additionally, it

promotes social inclusion by improving accessibility and participation of historically isolated communities (SDG 10: Reduced Inequalities) (UNOPS 2019).

Environmentally, the Tren Maya is committed to more ecological transportation, reducing greenhouse gas emissions and protecting biodiversity through the establishment of more Natural Protected Areas (SDG 13: Climate Action and SDG 15: Life on Land). It also enhances regional infrastructure, increasing resilience to natural disasters (SDG 9: Industry, Innovation, and Infrastructure), and contributes to sustainable urban development (SDG 11: Sustainable Cities and Communities). By facilitating access to historical and cultural sites, the project also promotes education and strengthening the region's cultural identity (SDG 4: Quality Education and SDG 11: Sustainable Cities and Communities) (UNOPS 2020).

On the other hand, it is important to consider that as of May 2023, the Tren Maya was declared a National Security Project through a presidential decree. Along with other projects in the country, it was deemed "strategic, priority, of public interest, and of national security." This resulted in the concessions for the construction and management of several sections, as well as the security of the train, being entrusted to the National Guard and the Secretariat of National Defense (SEDENA). Consequently, this increased the military presence in the region (Capital 21 2023).

The project has caused various reactions and divided opinions. On one hand, it is presented as the project that will bring development to the "historically neglected" southern region of the country, as a way to settle this historical debt. Additionally, support for the project is reported from the inhabitants of the five states it traverses, including indigenous communities.

Government channels mainly communicate the acceptance of the promise of economic benefits and improved quality of life (Martínez and Garduño 2022).

However, it has sparked strong controversies among scientists, academics, human rights and environmental activists, and indigenous communities in the region. Concerns have been raised about the lack of a comprehensive executive plan outlining all aspects and implications of the train project. Additionally, there have been reports of multiple inconsistencies regarding the timely publication of the Environmental Impact Statements (MIA by its Spanish acronym). Furthermore, there are discussions about irreversible environmental damage, particularly due to the karstic soil, the presence of cenotes and caves that connect the region's freshwater, and the loss of biodiversity (Bellani, 2024).

Furthermore, given that the train passes through indigenous territories, it had to comply with a process of previous Consultation. However, the consultations for the Tren Maya project have been highly controversial. Critics argue that the process has not met international standards for free, prior, and informed consent of indigenous communities. Despite government claims that the project will bring employment and development, there are significant concerns about its environmental impact, including damage to flora, fauna, and water sources like cenotes. The consultation process has been described as rushed and inadequate, with accusations of being a mere formality rather than a genuine effort to engage and respect the rights of the Indigenous communities directly affected by the project (Animal Politico, 2019).

Local communities and various environmental organizations have undertaken numerous legal actions and protests against the Tren Maya project. Although some of these actions were

initially approved, many were later ignored or overturned through legal maneuvers, such as centralizing all judicial initiatives in a single court in Mérida, making it difficult for many resource-limited communities to follow up. Due to the severe ecological and social impacts of the project, the International Rights of Nature Tribunal held a session from March 9 to 12, 2023, in the Yucatán Peninsula, where they listened to testimonies from affected communities, experts, and organizations. (Ribeiro, 2023)

In August 2023, the Tribunal issued a verdict finding evidence of ongoing ecocide and ethnocide, recognizing violations of the rights of Nature and the biocultural rights of the Maya people. The Tribunal demanded the immediate suspension of the project, the demilitarization of indigenous territories, the declaration of cenotes as subjects of rights, and the implementation of comprehensive reparations measures, including an independent audit and the restoration of damaged ecosystems (International Rights of Nature Tribunal, 2023). However the construction, up to May 2024 has kept moving forward.

Broadly speaking, this is an overview of the Tren Maya case study. While research on this project has been conducted, primarily from a scientific and academic perspective, the focus of this thesis is to understand the perspective of indigenous communities, especially the women who resist and defend their territory against this project.

3. Literature Review and Theoretical Framework

To understand the problems posed by the Maya Train and megaprojects as threats to the territory, it is useful to adopt the perspective provided by Decolonial Environmental Justice as an overarching theory. This is especially true from the viewpoint of Latin America, a region to which Mexico belongs and whose countries share characteristics such as cultural and

ecosystem diversity, a colonial past, and similar issues of inequality, extractivism, and environmental degradation.

Additionally, it is interesting to see how the need for environmental protection through decolonial justice is enriched by the conception of territory not as a mere geographical space but as a holistic concept that includes social, cultural, and natural elements of all beings, human and non-human, that inhabit it. Moreover, considering the specific perspectives and experiences of women, it becomes important to consider the territory-body relationship where colonial and exploitative practices are perpetuated, laden with hierarchies and gender inequalities parallel to those of nature but imposed on women's bodies.

Subsequently, examining the identified threat to the territory from a critical perspective of the so-called universal discourse of development and modernity reveals how these discourses perpetuate colonial or neocolonial practices. By questioning the notion of development, we proceed to consider megaprojects, which have become a trend in recent years due to their complexity, the promise of extensive and diverse benefits and rewards, and their supposed profitability, as is the case with the Maya Train.

Finally, the defense of the territory is discussed as the point where the decolonial perspective, environmental protection, critique of the development discourse, and above all, resistance to megaprojects converge.

3.1 Decolonial Environmental Justice and Territory

Latin American countries underwent their political, economic, and social construction—beginning with the structuring of the nation-state—in a very similar manner due to their shared

experience of colonization. This context prompted many thinkers from the region to recognize the need for a specific theorization of Latin American reality to understand the legacies that have shaped our social structures and continue to leave their mark (Martínez and Florêncio 2018, 134).

Starting from this context, it is appropriate to address environmental issues by considering coloniality. Decolonial Environmental Justice focuses on understanding the unique perspectives of the different places under analysis and specializes on recognizing the various ways of life impacted by dynamics or practices inherited from the colonial past of countries in the Global South. While the colonial past under Spanish, Portuguese, and French rule is behind us, modernity, development, and capitalism continue to thrive due to the persistence of these colonial dynamics (Sultana 2022).

The decolonial perspective is chosen over the Environmental Justice approach born in the United States because it is argued that Environmental Justice must transcend its initial focus on the distributive equity of environmental burdens (Schlosberg and Carruthers 2010; Álvarez and Coolsaet 2020). Remaining anchored to ideals, concepts, and standards rooted in Western realities and geography can lead to new injustices. Therefore, from the perspective of decolonial Environmental Justice, it is essential to challenge dominant colonial discourses (Álvarez and Coolsaet 2020, 5).

With these premises, scholarship on the topic has generated several concepts that help to better decipher the struggles faced by the region. A good starting point is Maldonado-Torres's proposal, where the decolonial approach addresses the coloniality of power, knowledge, and being (nd, 18). The coloniality of power refers to how modern global power structures, rooted

in colonialism, continue to dominate. Similarly, Quijano (2000), Escobar (2012), and Burman (2017) discuss how the coloniality of power, modernity, and development impose a dominant narrative that subsumes any other considered heterogeneous, affecting the diversity of ways of being in the world.

Finally, the coloniality of being addresses the lived experiences of colonization and its impact on identity. An example of how the coloniality of being manifests is through self-determination and the recognition of peoples. This implies that people have the right to define their own identities and be respected by others. Through the objective of Decolonial Environmental Justice to recognize oppressed groups, it is established that communities must have a voice in decisions that impact their lives and environment (Steger, 2023). Below is a figure that concentrates these key concepts on Decolonial Environmental Justice.

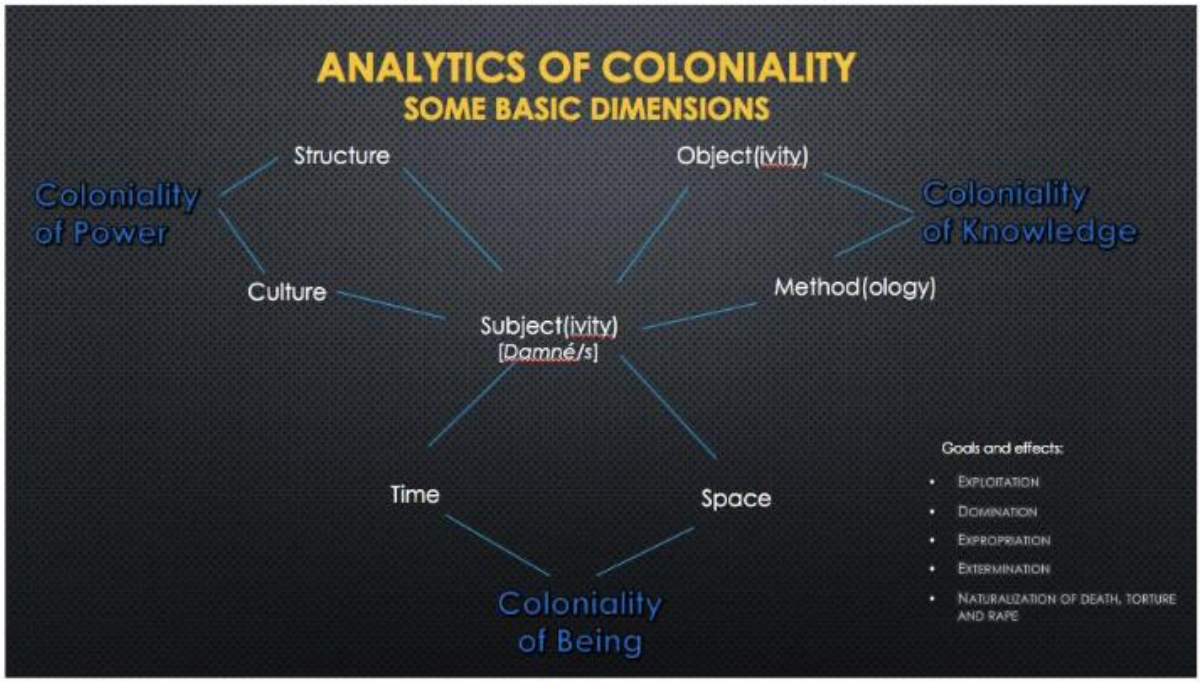

Figure 3 Analytics of Coloniality (Maldonado-Torres nd, 20)

3.2 The Territory

Once there is an understanding of the concepts and struggles entailed by Decolonial Environmental Justice, it becomes interesting to put into practice its premise of seeking and respecting epistemic diversity. This research, through the case of the Tren Maya, aims to contribute to EJ by using the concept of Territory as understood from indigenous worldviews. Attempting to practice what Mignolo calls "epistemic disobedience" (2009, 160), by moving away from describing things from an institutionalized and Eurocentric perspective, the following definition of territory was constructed based on the narratives shared by some defenders of the territory against the Tren Maya:

"Territory is a broad and multidimensional concept that transcends mere geographical boundaries and the possession of a piece of land. It represents life, including human beings, fauna, flora, and natural elements such as water. It is the space where life in all its forms, not just human life, is exercised and defended. Territory is also an interconnected network that encompasses not only the place of residence but also natural cycles, bodies of water, and ecosystems that affect and sustain life. It includes places on which one directly depends and those more distant that influence ecological balance and biodiversity. Additionally, the territory is a place where daily life and emotional bonds intertwine with the natural environment.

To this, a spiritual dimension and deep connection with the territory is added, viewing it as a living entity full of energies and caretakers. The relationship with the territory involves respect and gratitude, recognizing natural forces and elements as vital parts of the inhabitants' identity and existence. It is a sacred space where one must ask permission, offer gratitude, and live in harmony with all the beings and elements that compose it" (María Candelaria, Wilma, Anonymous B, Haizel).

The concept of territory is quite compatible with Decolonial Environmental Justice, as it completely challenges the way of being one with nature, living in a community, and cultivating traditional knowledge that is entirely different from European perspectives. The coloniality of knowledge critiques the dominance of Western epistemology, which often dismisses non-Western knowledge systems (Maldonado-Torres n.d, 19). Specifically, regarding epistemologies, traditional knowledge, spirituality, identities, and the various forms of struggle of indigenous peoples are profoundly impacted by these colonial discourses (Grosfoguel and Cervantes-Rodríguez in Roy & Hanaček, 2023), highlighting the urgent need to address this issue.

Adding to this commitment to Decolonial Environmental Justice for epistemic diversity and liberation from "universal" colonial discourses, Schlosberg and Carruthers also emphasize the importance of "cultural recognition, participation, and the defense of community capacities." Specifically from an indigenous perspective, this broad and inclusive approach to justice focuses on maintaining the functioning of communities and their cultural connections to the land (2010) which basically refers to the relationship with the territory.

3.3 Women and the territory

Addressing the aim of this investigation to explore not only the questioning of colonialism and territory but also women's experiences, it is crucial to understand the implications they face. The territory is established to encompass a holistic way of seeing the world. One territory element can also be seen in two parts of a whole: the territory-land and territory-body. According to María Candelaria (2024), this refers to the two main spaces inhabited by the people: the land as a geographical space that provides a livelihood and sustains the community,

and the body as the material space their being also inhabits. This poses that the body is also a territory and part of the territory and explains the deepness of the relationship between the people and the land since both are part of the same whole.

To further understand this relation of body-territory, it is worth looking at a methodology that the Colectivo Miradas Críticas del Territorio desde el Feminismo developed. It starts with the premise that the body is manifested as an inhabited territory where conflicts are expressed. Therefore, all struggles, passions, anxieties, and resistances lived by a community are imprinted on the body, allowing for its analysis as a disputed territory under the hegemony of the economic and political system. By drawing inside a printed human silhouette of all these struggles, this explanatory and self-reflective tool was tested with students from the National Autonomous University of Mexico who explored territorial conflicts from this dimension (2017)

The results were interesting and allowed students to realize their rooted connection with the land. For example, one student represented the mining conflict in Cotonaco, where his heart, surrounded by mining pits, symbolizes the resistance of his community. Another student, an indigenous farmer, illustrated the importance of the body in the defense of territory, linking his peasant identity to the sovereignty of continuing to cultivate. These corporeal representations allow for an understanding of the complexity of territorial conflicts and resistances from a corporeal and subjective perspective (Colectivo Miradas Críticas del Territorio desde el Feminismo, 2017).

Starting from the fact that struggles and resistances are reflected in people's bodies, it is worth analyzing the particularities of these bodies, such as those of women. It is believed that women,

particularly indigenous women, have a unique and deeply rooted connection with the territory that is both physical and spiritual. The dualism explored by Quijano establishes that through the Eurocentric conception of modernity, the less civilized are considered closer to nature, and among them, women are the most rooted in it (2000).

This idea of dualism is meant to further marginalize women, whereas the conception of body and territory looks to make people closer to their space. But what they have in common is how, in a patriarchal context, women's bodies suffer different struggles than men's, and hence, the threats to their territory are also a dialectic reflection of what they face. This perspective is echoed by Gay-Antaki, who states that embodied geographies within the study of environmental justice help us "understand the geographical, gendered, sexualized, and racialized arrangement of environmental injustices" (2023, 2379).

To further understand the importance of considering the relationship of women's bodies and the territory, within Decolonial EJ, there is the proposal of Intersectional Decolonial Environmental Justice (IDEJ). It incorporates Crenshaw's concept of intersectionality that encompasses social contexts and power structures, including racism, sexism, and colonialism, and the contestation against coloniality. This entails acknowledging the intricate and overlapping causes of environmental and social injustices resulting from the legacy of historical context and recurrent oppression, which marginalizes certain communities while benefiting others. (Malin and Ryder 2018, 4-5).

This approach is essential when examining the relationship between women and the territory, as it highlights the multiple layers of oppression they face. Also, ecofeminism and Feminist Political Ecology (FPE) also argue that the separation of nature from humans is central to

environmental crises (Plumwood in Cirefice 2019, 83). This perspective frames the struggles of Indigenous women as they resist both the exploitation of their land and their bodies.

"It is these connections between physical and sexual violence against women and the exploitation of the land which informs their resistance" (Gies in Cirefice 2019, 83). This connection is vividly seen in the context of the Tren Maya, where the imposition of the project has led to increased military presence and violence, disproportionately affecting women.

According to the assessment by Roy and Hanaček, it can be argued that decolonial environmental justice in Latin America, particularly in the defense of territory by women, faces the violence inherent in both patriarchy and coloniality (Roy & Hanaček, 2023). Women defending their territory against projects like the Tren Maya not only fight for environmental justice but also against the systemic violence that seeks to marginalize them.

3.4 Decolonizing the Promise of Development

So far, decolonial environmental justice has been presented as an overarching framework, using the concept of territory to question Eurocentric colonial practices and understand the implications women face in these contexts. A decolonial critique of development is necessary to complete the framework for analyzing the Tren Maya.

The narratives and conceptions of the Third World left by the colonial past still shape relations and power structures between the First and Third Worlds (Escobar 2012, 15). This research shows that these dynamics are repeated even within countries where the Third World is interpolated into the local context. According to Quijano, a problem when assessing modernity, or development in this case, is the exclusive consideration of rationality, science, and

technology linked to a Eurocentric perspective. This approach perpetuates the idea that modernity itself is inherently Eurocentric (Quijano, Coloniality of Power, Eurocentrism 545).

Similarly, Escobar critiques the technocratic and top-down nature of development, which often treats people and cultures as abstract entities to be manipulated rather than engaging with them as active participants in decision making process (2012, 44). This professionalization and institutionalization depoliticize development discourses, masking other interests under a technical facade that enhances power dynamics (45).

The goal of the development discourse has been managing poverty worldwide. The conceptualization of global poverty, significantly altered post-World War II, has shifted to turning the poor into subjects to be controlled and managed (Escobar 2012, 22-23). Hence, adverse consequences of development strategies introduced by Western theorists and politicians along the promise of prosperity often lead to massive underdevelopment, exploitation, and oppression (2012, 4).

The imposition of this discourse of development and disregard of other epistemologies, like the notion of territory, can also be related to the persistence of the colonial dualistic vision. Dualism, analyzed by Quijano (2000), is based on the Eurocentric notion of modernity, which promotes a linear and unidirectional view of history, positioning European civilization as the pinnacle of human progress. Essentially, the idea of modernity and development is presented as the civilizing force that brought the West out of a "state of nature." By establishing this as a standard, classifications arise that distinguish people according to the European and non-European dualism. This results in the dispossession of non-European civilizations of their historical identities and their reduction to generalized and marginalized categories.

In this sense, many conflicts are experienced with extractive industries such as mining, infrastructure, and intensive agriculture, as they involve enormous physical transformation of traditional landscapes. These changes leave behind the intangible ways of feeling about, being part of, and knowing about the environment (Álvarez and Coolsaet 2023, 309). Despite the deterioration of living conditions for many, experts continued to uphold the development discourse, necessitating a struggle for freedom within its confines to envision a different reality (Escobar 2012, 5).

Environmental justice scholars focus on community self-determination and self-recognition. Álvarez and Coolsaet discuss how oppressed communities, under stress, may be influenced by harmful industries. They note that minority group requests might reflect desires shaped by colonial influences based on distorted identities and misrecognition. This situation complicates environmental justice efforts and highlights how these communities face tough choices between immediate survival and long-term well-being (2023, 309).

Moving to a more modern narrative, this research does not delve in-depth into sustainable development. However, given the contemporary concern to protect the environment while ensuring progress, a critical view of development would not be complete without mentioning it. “Sustainable development would make possible the eradication of poverty and the protection of the environment in one single feat of Western rationality” (Escobar 2012, 192).

The institutionalization of development knowledge from a Eurocentric and capitalistic view also reflects how sustainable development is managed. It seeks to “rework the relationship between nature and society” (Escobar 2012, 194). Similarly, "An 'epistemic monoculture' is

evident in global environmental initiatives such as Sustainable Development and the Sustainable Development Goals (SDGs). In these global initiatives, nature is objectified and marketized (e.g., as natural resources, ecosystem services)" (Steger 2023, 9).

On approaching sustainability, Roy and Hanaček state that it can only be achieved "when the answers and decisions come from the South itself – telling their own stories and theorizing as well as implementing their own alternatives to colonial extractivism, patriarchy, racism, classism, and other forms of oppression" (Roy and Hanaček 2023, 312).

3.4.1 Antecedent of the Tren Maya

Mexico, in its journey towards modernization and development, has a history with railway systems, including in the southeastern region. The case of the Maya Train stems from the antecedent of the Southeastern Railway, which was also once considered an essential project to connect the Yucatán Peninsula with the rest of Mexico. It was constructed between 1934 and 1977, with its first line inaugurated in 1950 between Coatzacoalcos and Campeche. Similarly to the Maya Train, its objective was to improve the transport of goods and passengers while reducing transportation costs (Moguel, 2020, 8). During the Porfiriato, railways were crucial for transporting henequen[2], the main economic product of Yucatán at that time (Redacción, 2023).

The railway faced numerous challenges, considered logistical and infrastructural obstacles, during its construction and operation. These included equipment distribution, staff training, construction in jungle and swampy areas, and land acquisition from local inhabitants (Moguel,

[2] Henequen (Agave fourcroydes) is a fiber plant from the asparagus family native to Mexico and Guatemala. Significant since pre-Columbian times, it was introduced to Cuba in the 19th century and became the main fiber crop by the 1920s. Henequen fiber is used for twines, ropes, bags, hammocks, and shoe soles ("Henequen | Agave Fourcroydes, Mexican Fiber, Sisal | Britannica," n.d.).

2020, 8). It is even narrated that during President Lázaro Cárdenas's term between 1934 and 1940, the association in charge of its construction aimed to "conquer the jungle to bring the locomotive" (El Mirador, n.d., 1).

From this initial train, there was already a narrative of imposed development, as seen in the "Memories 1941-1942" of the Secretariat of Communications and Public Works when describing the arrival of the train in Tabasco: "it was an event for the natives of that area, many of whom had never seen a machine of that nature, constituting a reason for great satisfaction and a memorable event, as they were considered rescued, so to speak, from their secular isolation" (SCOP, 1942, 75 in Mirador, n.d., 2).

Since 1998, the railway was privatized, marking a significant change in its management (Redacción, 2023). This antecedent is relevant as it highlights the importance of development narratives; this connection to the past of progress and trains is a fundamental part of the appeal that the government, especially the President, promotes when presenting the Maya Train. Therefore, it is said that the Maya Train project seeks to revive and expand the historical railway connection of southeastern Mexico, inspired by the economic and social importance that the Southeastern Railway once had (Redacción, 2023).

However, this narrative is only part of the bigger picture. As previously mentioned, the Maya Train is more than just a train; it is a megaproject for development and territorial reorganization in the country's southeast. Thus, it is essential to consider what megaprojects are and how they have been implemented in Mexico. As a case in point, mega-projects exemplify significant social initiatives rooted in colonialism and development (Gellert et al 2003, p 20), thereby

providing a lens to examine the intricate interplay of environmental justice, colonialization, and intersectionality in instances of environmental injustice.

Maristella Svampa (2012, 48-49) mentions that currently, there is a dominant discourse of development focused on growth, productivity, and modernization, which is now tied to 'mega' extractive projects rather than industrialization. When facing backlash from issues raised by the projects, such as environmental degradation, the discourse combines neoliberal ideas with global issues to neutralize criticism. This is by, for example, pushing "a diluted proposal of sustainable development" (Gudynas in Svampa 2012, 48) to promote ecological efficiency, keeping colonizing practices but relying on technology to solve any issues.

3.4.2 Megaprojects as a means of development

While its definition can vary, megaprojects are large-scale investment initiatives typically exceeding 500 million euros (European Cooperation in Science and Technology 2010, 3). Depending on the literature, this price characteristic may or may not be definitive. Generally, it is agreed that megaprojects are characterized by their large scale, complexity, and significant economic and social impact. These projects span a variety of sectors, including infrastructure (highways, bridges, tunnels), energy facilities, and large industrial developments (3).

As of 2013, megaprojects represented approximately 8% of global GDP, with an estimated expenditure between 6 and 9 trillion dollars annually (Flyvbjerg 2014, 2). This trend reflects economic and development strategies that seek to leverage large-scale projects for regional or global benefits. "Megaprojects are increasingly used as the preferred delivery model for goods and services across a range of businesses and sectors […]" (3).

However, despite their lucrative benefits, megaprojects face significant challenges in their design and execution, often suffering from cost overruns and delays. This phenomenon is known as the "iron law of megaprojects," which states that these projects consistently exceed budget, are delayed, and deliver fewer benefits than anticipated (Flyvbjerg 2014, 9). Specifically, in the study of megaproject management, the reasons why, on average, 65% of megaprojects fail, as evaluated in 2011, include poor planning, technical challenges, and underestimation of risks (Brookes and Locatelli 2015, 5).

In more detail, the economic implications of megaprojects are considerable, with massive financial commitments that can affect national budgets and economic policies. The financing and economic sustainability of these projects are crucial issues, focused on their ability to deliver the expected economic benefits (Flyvbjerg 2014, 10). Furthermore, the political and social dynamics are also essential for the success of megaprojects. Managing the diverse and often conflicting interests of multiple stakeholders and securing public support are major challenges (Brookes and Locatelli 2015, 13).

There is a growing trend towards increasing the size and scope of megaprojects, driven by global ambitions in infrastructure and technology. Innovations in management methodologies and technologies are continually evolving to address the unique challenges of these projects. New approaches to project management, stakeholder engagement, and risk mitigation are being developed to improve the planning, execution, and outcomes of megaprojects (Flyvbjerg 2014, 12). However, it is worth considering that these analyses from specialized megaproject studies do not explicitly contemplate intersectional implications for people from traditionally marginalized groups.

From a more critical analysis of megaprojects, Giovanna Gasparello argues that, just as mentioned earlier, development is an imposed discourse, and today's megaprojects are imposed by governments and corporations. Under the promise of benefits for the population, the real aim is to fulfill economic and political interests that often do not align with the actual needs of the affected communities (2020, 125). Additionally, she presents a much more comprehensive list of the specific impacts on the territory, including: "loss of traditional lands and territories, forced displacements, resource depletion, environmental destruction and contamination, disruption of social fabric, and violence against opponents" (125).

In Mexico, the development strategy of implementing megaprojects has been gaining momentum since the late 20th century, with projects growing larger over time. These megaprojects are major initiatives designed to drive economic growth and attract investment from both domestic and international sources. The goal of these projects is to upgrade infrastructure and harness natural resources (Cuenca, 2014).

However, despite the potential benefits, megaprojects in Mexico have a troubling history of issues. For example, in the case of the Maya Train, local communities, especially indigenous groups, often bear the brunt of these developments. Many are forced to leave their land and lose access to essential natural resources. Moreover, these megaprojects frequently lead to significant environmental harm, including the contamination of water, air, and soil, and the destruction of entire ecosystems (Gasparello, 2020, 125).

3.5 Defending the Territory

The point where these ideas of contesting development and colonial practices, considering different epistemologies, and seeking environmental justice from the standpoint of the territory

culminate is in the defense of the territory. For instance, in the study of the “environmentalism of the poor” centers on social justice, including demands for recognition and participation, and asserts that “the fights for human rights and the environment are inseparable,” especially when discussing indigenous communities (Martinez-Alier 2002, p. 514).

This distinction is significant because Indigenous resistances often have different conceptions of environmental issues and their solutions compared to environmentalist movements. While environmentalists may advocate for strict conservation and biodiversity protection, indigenous communities may prioritize the sustainable use of natural resources to ensure their subsistence and respect their traditional cultural practices (Ulloa 2005, 100).

Decolonial thinking leads to the liberation from dominant discourses and fosters new ways of understanding human–nature relationships (Roy and Hanaček 2023, 308). Environmental harm that disrupts the abilities, connections, safety, and survival chances of marginalized people benefits those in positions of power living elsewhere (Steger 2023, 9). This disruption, which breaks a community's bonds to a place, affects their sense of safety and confidence, a phenomenon Groves calls the "colonization of attachment."

This concept establishes that “connections between place, identity, and agency need to be interpreted through aspects of attachment theory that identify attachment as a process and relationship that undergirds individual and collective capacities forming sense of and influencing intrinsically-uncertain individual and collective futures” (Groves 2015, 854). Schlosberg and Carruthers emphasize the importance of self-determination in the “fundamental capacity of indigenous communities to sustain the lives and livelihoods they value”

(Schlosberg and Carruthers 2010, 30-31). These capacities are crucial for maintaining the life chances of multiple species and biodiversity, which are threatened by habitat destruction.

Specifically regarding megaprojects, affected communities have organized resistance movements to defend their rights and territories. These movements employ various strategies, including protests, legal litigation, and forming support networks at national and international levels. The resistance aims not only to halt the projects but also to promote respect for human and environmental rights (Cuenca, 2014)

The construction of these projects leads to deforestation, contamination of water bodies, and loss of biodiversity. For example, hydroelectric dams, which flood vast areas of land and forest, completely alter ecosystems. Beyond environmental damage, these projects create social conflicts due to their imposition without the consent of indigenous communities, violating their territorial and cultural rights. Resistance primarily arises because these projects do not respect the right to free, prior, and informed consent, which is fundamental for Indigenous peoples (Gasparello, 2020)

These megaprojects also involve human rights violations, with documented cases of violence and repression against community leaders and members who oppose them. Economically, although they are promoted as drivers of development, they often do not benefit local communities, which lose their traditional livelihoods and do not receive fair compensation for their lands and resources (Cuenca, 2014)

In summary, indigenous resistance to megaprojects in Mexico is based on the profound negative impacts on their territories and ways of life. These communities advocate for a

development model that respects their rights and cultures and includes effective mechanisms for consultation and participation to prevent conflicts and ensure just and equitable development.

In addition to the aforementioned actions, legal defense against development projects is part of the mechanisms of defense used. Just as the legal protections established against the Tren Maya, collectives often ask for a cease of construction to defend the territory (Cuenca 2014). Some of the legal mechanisms used for protecting Indigenous territories among the most relevant for Mexico and Latin America are:

I. United Nations Declaration on the Rights of Indigenous Peoples: This declaration, adopted in 2007, asserts the right of indigenous peoples to preserve and enhance their institutions, cultures, and traditions and to pursue their development according to their needs and aspirations. As a pivotal global framework, this declaration supports the protection and promotion of indigenous rights worldwide (United Nations 2007).

II. ILO Convention No. 169: This convention affirms the rights of indigenous and tribal peoples, highlighting the importance of prior consultation, communal land ownership, and respect for their customs. It is a key instrument for ensuring Indigenous communities can participate in decisions impacting their territories and lives, fostering equity and justice in development initiatives (International Labor Organization 1989).

III. American Convention on Human Rights: This regional treaty safeguards the rights of indigenous peoples to communal property and cultural integrity. It underscores the commitment of American States to uphold indigenous rights, ensuring the

protection and respect of their territories and traditional ways of life (Organization of American States 1969).

IV. Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua: This landmark case sets important precedents for recognizing and protecting indigenous territorial rights within the Inter-American human rights system. It established the legal basis for recognizing communal land ownership and the indigenous peoples' right to their ancestral lands, marking a significant advancement in human rights jurisprudence and providing a strong legal foundation for future indigenous land claims (Inter-American Court of Human Rights 2001).

V. Escazú Agreement: Adopted in 2018, this agreement is the first regional environmental human rights treaty for Latin America and the Caribbean. It establishes comprehensive standards for access to environmental information, public participation, justice, and protection of environmental defenders, with provisions for vulnerable groups, including indigenous peoples. The agreement mandates states to facilitate access to environmental information, ensure inclusive participation in environmental decision-making, and provide legal recourse for environmental rights violations. This complements the mechanisms for the defense of Indigenous territories, as it ensures their involvement and protection in decisions impacting their lands, aligning with their rights to a healthy environment and safeguarding their cultural and territorial integrity (Economic Commission for Latin America and the Caribbean 2018).

3.6 3.6 Conclusion

This chapter has delved into the complex relationships between Decolonial Environmental Justice, the concept of territory, women's experiences, the discourse of development, and the

implementation of megaprojects, specifically through the lens of Latin American contexts. The theoretical framework established here is crucial for understanding the ongoing issues posed by the Maya Train project in Mexico.

First, the exploration of Decolonial Environmental Justice has highlighted the importance of addressing environmental issues through a lens that considers the historical and ongoing impacts of colonialism. This perspective emphasizes the necessity of moving beyond Western-centric frameworks to include diverse epistemologies and ways of life that have been marginalized by colonial and neocolonial practices.

Next, opening to different epistemologies, the concept of territory, as seen from indigenous cosmovision, has been examined as a holistic construct that encompasses social, cultural, and natural dimensions. This understanding challenges the traditional Eurocentric view of territory as merely a physical space, advocating instead for recognizing the interconnectedness of human and non-human life. Along this, women's experiences, particularly those of Indigenous women, have been discussed in the context of their unique relationship with the territory. The intersectionality of environmental justice has been underscored, showing how colonial and patriarchal practices simultaneously exploit natural resources and women's bodies.

Then, a critical examination of development discourses has revealed how narratives of modernity and development perpetuate colonial dynamics and can be addressed by decolonial environmental justice. The promise of development, as seen in the case of megaprojects like the Maya Train, often leads to significant social and environmental consequences despite the purported benefits.

The historical context of railway systems in southeastern Mexico, focusing on the antecedent of the Southeastern Railway, has been provided to frame the Maya Train project. This historical perspective underscores the recurring narrative of imposed development and the importance of understanding past and present impacts on local communities.

Finally, the defense of the territory has been presented as a point of convergence for various strands of resistance. This includes the decolonial critique of development, the push for environmental justice, and the opposition to megaprojects that threaten indigenous lands and ways of life.

4. Methods

This thesis is based on qualitative research, with the aim of understanding the Tren Maya case study from the perspective and experiences of the territory's defenders in the Yucatán Peninsula. A qualitative approach was selected because it allows one to analyze a phenomenon from its origins, causes, and, most importantly, the meaning it has to the people experiencing it (Williams and Moser 2019, 45). As detailed in the following sections of this chapter, this research was conducted directly in the field to gain first-hand knowledge of the context and realities of the women defenders of the territory. Thus, the data collection tools were semi-structured interviews and field observation.

4.1 Data Collection

4.1.1 Semi-structured Interviews

The main tool to gather the perspectives of defenders of territory against the Tren Maya, was semi-structured interviews. Considering that this research focuses on perspectives,

experiences, and stories, structured interviews would not allow the participants to take the conversation to the points that are genuinely important to them. However, some structure was needed to ensure the research's key points were discussed.

In this sense, semi-structured interviews were chosen since they combine aspects of structured data collection typically associated with closed-ended surveys with the flexibility of open-ended group discussions (Adams 2015, 493). They are typically conducted as one-to-one conversations incorporating closed- and open-ended questions, frequently followed by probing questions such as "why" or "how." This approach facilitates a more fluid exploration of topics, making the conversation more engaging and capable of uncovering real insights directly from the source (493).

The interviews were primarily directed at Maya women who are defenders of the territory. It is important to note that, in the initial stages of the research, virtual meetings with NGOs and collectives in the region were held to get an overview of the context. This previous analysis found that the term "defender of the territory" is not necessarily used by all individuals to describe themselves, and sometimes it is a label assigned by media or external actors. Therefore, this research considers a defender of territory a person who lived, believed and guided their actions under the previously mentioned concept of territory.

Secondly, individuals who took a stance on the Tren Maya and took some action to resist its establishment were considered. However, it is worth mentioning that lawyers who participated or had participated in the legal support of collectives and defenders of the territory to file injunctions against the Tren Maya were also included in the interviews. This is because, as will

be mentioned in the Results and Discussion section, injunctions are one of the most commonly used tools in the resistance and defense of the territory.

The objective of the semi-structured interview presented to the interviewees was to understand their perspectives, knowledge, and particular experiences based on open-ended questions about the Tren Maya. Interviews were chosen considering that "at the root of in-depth interviewing is an interest in understanding the experience of other people and the meaning they make of that experience" (Seidman 1998, 3). No survey or quantitative method was used, as the most relevant aspect of this research was to understand what is important from the defenders' perspective and, especially, to appreciate any details, examples, and stories they wanted to share during the interview process.

The interview was mainly structured around understanding their perception of the Tren Maya and its implications and their participation in the efforts to defend the territory in the Yucatán Peninsula. And a total of 11 interviews were conducted, of which:

I. Six were conducted with Maya women defenders of the territory, one of which also included the participation of Omar Martínez, who works closely with María Antonieta Bocanegra at Uyool Che.

II. Two were conducted with women who, although not Maya nor originally from the Yucatán Peninsula, can be considered defenders of the territory due to their work with the President of the Civil Association Mujer Libre MX, Fuerza de Ixchel A.C., and their actions reflecting the adoption of the concept of territory. They are even recognized by collectives and the National Indigenous Council (CNI).

III. Three were conducted with lawyers who have provided legal support for the abovementioned reasons.

Table 1: Name and Affiliation of the Interviewees

Name	Affiliation	Date
Haizel De La Cruz	Member of the Asamblea Múuch' Xíinbal	April 18
María Candelaria May Novelo	President and founder, Centro Cultural y de Derechos Humanos Casa Colibrí	April 27
Flore May	Member of Centro Cultural y de Derechos Humanos Casa Colibrí	April 27
Jorge Fernandez Mendiburu	Lawyer	May 01
Miguel Anguas	Lawyer at Kanan AC	May 03
Lizbeth Lugo Hernández	President of the Civil Association Mujer Libre MX, Fuerza de Ixchel A.C.	May 03
Miriam Moreno Sánchez	Member of the Civil Association Mujer Libre MX, Fuerza de Ixchel A.C.	May 04
Anonymous A	Lawyer	May 05
Wilma Esquivel Pat	Member of the Centro Comunitario U Kuuchil K Ch'i'ibaalo'on	May 07
Anonymous B	Defender of Territory	May 08
María Antonieta Bocanegra and Omar Hiram Martínez Castillo	Director of Uyool Che AC and Member of Uyool Che AC	May 08

The interview protocol contemplated 4 main questions with subquestions:

I. Can you tell me about yourself and how you became involved in the defense of the territory?
   a. What is understood by "territory"?
   b. What is the most important thing for you in its defense?
II. Could you explain how was the arrival of the Tren Maya?
   a. Has your daily life changed since then, and if so, how?
   b. What does the train entail for the territory?
III. How do you perceive the Tren Maya proposal for the development of the Yucatán Peninsula?
   a. What were your activities / those of your organization or collective around the Tren Maya?
   b. Can you tell me about a challenging moment in your efforts?
   c. Could you tell me about a moment when you felt things were moving forward?
IV. Is there anything particular about being a woman since the train's arrival?
   a. And in the defense of the territory?

However, even when these four questions were considered and answered, the interviews were conducted in a way that allowed the interviewees to express their perspectives freely and share the most important information. This is because, as stated by Seidman, interviews are not meant to answer specific questions but to get to know other people's stories (1998, 1). The sessions were planned to last approximately 30 to 60 minutes, but on average, the interviews lasted approximately 1 hour and 35 minutes.

4.1.2 Field observation

"The anthropology of modernity would rely on ethnographic approaches that look at social forms as produced by historical practices combining knowledge and power; it would seek to examine how truth claims are related to practices and symbols that produce and regulate social life" (Escobar 2012, 12).

Based on this consideration, field observations for this research were conducted in two states of the Yucatán Peninsula, Yucatán and Quintana Roo, from April 17 to May 13, 2024. During this time, a total of 10 municipalities were visited (5 in Yucatán and 5 in Quintana Roo), which are located along 4 of the 7 sections that make up the Tren Maya: Section 3 Campeche to Yucatán: Calkiní – Izamal, Section 4 Yucatán to Quintana Roo: Izamal – Cancún, Section 5 North Quintana Roo: Cancún - Playa del Carmen, Section 5 South Quintana Roo: Playa del Carmen – Tulum, Section 6 Quintana Roo: Tulum – Chetumal (González 2023).

Considering the case study's complexity, conducting field observations was important. Given that "They are grounded in a commitment to the first-hand experience and exploration of a particular social or cultural setting […]" (Atkinson 2007, 4). This method was necessary to

fulfill the goal of witnessing and experiencing the context in which the train is being constructed and the social dynamics that occur within it.

During this time, the dynamics of the people, the differences and similarities of each of these places, and how people relate to the train were mainly observed. Also, many casual conversations were held with local people, shop owners, tourists, some workers of the train, taxi/bus drivers, and a journalist who covered the entire development of the train two years ago, which was very interesting.

Also, in Yucatán, I was able to visit a community between the municipalities of Valladolid and Izamal, home to the May family. Although a formal interview was not conducted since they are not defenders of the territory, witnessing this case firsthand was very insightful in observing the direct implications of the Tren Maya in one of the many cases that exist along the tracks.

Regarding the Train, as part of the field observations, I visited 3 stations, Mérida-Teya, Uman, and Cancún, to observe a glimpse of the progress in the construction of the stations. On May 2, I rode the Tren Maya from Merida to Cancun to document the experiences, reactions, and behaviors of people around it. This was insightful since I witnessed elements that came up in the casual conversations and the interviews.

Figure 4 Merida – Teya and Umán train stations

Figure 5 Tren Maya

Next, in Playa del Carmen Quintana Roo, I got acquainted with a group of environmental activists and divers who have also been acting as environmental activists. Even when this group was not part of the defense of territory, from their activism, they have been documenting the issues mainly caused in Section 5 South between Playa del Carmen and Tulum of the train that runs through the jungle. Part of the damage I witnessed is the spillage of cement inside cenotes and underwater caves, the perforation of caves for the installation of cement pillars that are intended to work as the support of the train tracks, and the deforestation of the jungle.

All these activities were registered in detailed field notes considered throughout the thesis to understand the case study better.

4.2 Sampling

The sampling strategy for the interviews was purposeful sampling. An initial mapping was conducted on social media and media coverage to identify potential interviewees. Due to time constraints and the limitations of conducting the mapping and designing the research remotely, purposeful sampling allowed for obtaining sufficient and high-quality data despite the limited number of interviews, as they came from "information-rich" (Patton in Powell, 6) sources.

Subsequently, snowball sampling was employed to address the limitation of identifying interviewees who were broadly involved in the defense of the territory. This method involves initial sources "identifying other people or cases to investigate" (Powell 1998, 7). This second sampling method made it possible to secure the 11 interviews and broaden the data collection to include lawyers involved in the legal battles for defense as key actors. Additionally, it

reaffirmed that the interviews obtained were indeed purposeful since they were recognized among the participants.

4.3 Data Analysis

The mechanism used to analyze the interview data was coding following the three steps of the Grounded Theory Method (GTM). This theory considers codes as a "qualitative inquiry […] that symbolically assigns a summative, salient essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (Saldafia in Williams and Moser 2019, 46)

Therefore, the data was analyzed in three levels by reading the interviews and field notes line by line and color coding the categories and themes. The first level was open coding, which generated "initial broad thematic domains for data assemblage" (Williams and Moser 2019, 48). In this initial level, approximately 25 broad categories were identified. The second level was axial coding, which served as a filter to start grouping the broad categories into "distinct thematic categories" (50).

The axial coding level was repeated three times. Repeating the process was necessary given that the data contains multiple dimensions and multidisciplinary information related to the case study. However, relying on the understanding of the defenders' perspectives and observations and supported by the theory, this level resulted in 10 categories that can be found in Table 2.

Finally, the last level was selective coding, which "selects and integrates categories of organized data from axial coding in cohesive and meaning-filled expressions" (Williams and Moser 2019, 52). This final stage was especially useful since it resulted in three key topics that organized the categories in a way that contributed to answering the research questions.

Table 2 Categories and Themes resulting of the coding process

Categories	Themes
Environmental damages	The Colonial Promise of Development
Socioeconomic impacts	
Insecurity and Militarization	
Gender-based Violence	
Health of the Environment	Threats to the Territory
Social Fragmentation	
Weakening of the Maya Identity	
Women and the Territory	
Actions of Resistance	The Defense
Women Defending the Territory	

4.4 Limitations of the research

This research, especially since it addresses a complex case study, face various limitations. Due to constraints in both time and funding, the research was conducted in only two of the five states traversed by the Train, covering approximately two-thirds of the Yucatán Peninsula. This limitation results in significant gaps in understanding defense mechanisms and community dynamics in Campeche, Chiapas, and Tabasco. Additionally, the duration of the stay in each of the visited municipalities was limited, which allowed for the development of a general overview but did not permit a deep, comprehensive analysis of the local dynamics.

Furthermore, in the initial stages of the research design, identifying and mapping potential interviewees presented considerable challenges. Many individuals and collectives relevant to the research are not easily found on social media or other media outlets. Numerous collectives

have Facebook pages with names only in Maya, making them difficult to locate. Furthermore, building the necessary trust to approach these communities and collectives generally requires an extended period, often more than a month, which exceeds the available timeframe for this research.

Finally, the research was mainly focused on municipal centers and urban areas, as interviewees were more accessible in these locations, either because they resided there or were willing to meet there. These areas also offered greater accessibility via public transportation and higher levels of safety. As a result, the research did not extend to more rural communities, where gaining access typically requires invitations from residents to conduct interviews and gather detailed insights.

4.5 Ethics of the research

Considering the tensions around the Tren Maya, the security threats that defenders of territory face in Mexico, and the fact that the research revolved around human subjects, thorough ethical considerations were taken. Given that the main focus of the thesis is to explore the local in-field perspectives and that these topics can be sensitive, it was especially prioritized to be transparent about the use of the information gathered, emphasize the rights of the participants during the interviews, and ensure the safety of both the participants and the researcher.

With this in mind, the research did not pose any additional risks or hazards to the participants beyond those they already faced as defenders and activists against megadevelopment projects in the region. Moreover, in terms of the researcher's safety considerations, there were inherent risks associated with researching the Tren Maya due to potential resistance from the

government and the army to inquire about the project. Additionally, the presence of drug trafficking activities in the region, especially in locations with a lot of tourism, was considered.

To mitigate these risks, the research was conducted discreetly. Especially when having casual conversations with non-interviewees, no opinions were expressed on the megaproject. Additionally, all interviews were conducted in mutually agreed-upon locations and schedules that were best considered safe based on the knowledge of the local participants and mine as a Mexican with good safety practices.

Also, participants had the option to remain anonymous, especially when security concerns were raised. For online interviews, the researcher ensured privacy by wearing headphones and conducting interviews in a secure, private location. All potential risks were clearly discussed with the participants beforehand. Moreover, all activities, including transfers, travel, and interviews, are scheduled during daylight hours. Finally, the researcher consulted with NGOs and local acquaintances before and during the fieldwork to stay informed about the current situation and necessary precautions.

In terms of the rights of the interviews, participants were fully informed about the research. The right to stop the interview and withdraw consent at any point was stated. This ensured that participation was voluntary and based on a clear understanding of the research and its potential implications. Also, as mentioned, participants were given the option to keep their interviews anonymous. If anonymity was chosen, no names or affiliations were disclosed in the thesis or any subsequent publications or conferences derived from the research.

Also, interviewees were informed that all data was securely stored on CEU's OneDrive account, accessible only to the researcher and supervisor, Tamara Steger. This ensured that all data protection and storage requirements were met. Besides, they were given the option to fully or partially withdraw their interviews from the research up to May 30th, 2024.

Finally, participants were informed that the data collected may be used beyond the thesis and potentially disseminated through articles and conferences. This point is especially relevant given that, to avoid exploiting their testimonies without retributing their knowledge and time invested in this research, it was agreed that the participants would be consulted on how they would like the data to be used for further publications, and the option to subsequently collaborate was offered.

Throughout the duration of the project, ethics considerations were regularly reviewed for which the thesis complies with the CEU Research Ethics Policy.

5. Results and Discussion

To begin analyzing the results of this research, it is crucial to reiterate one of the main messages shared by the interviewees: the Tren Maya is not merely a project that brings railways and carriages to the Peninsula; it is a megaproject of territorial reorganization with implications in multiple dimensions. This narrative is presented both by the federal government when showcasing the benefits of the project and by the defenders and other actors who question or resist the train, explaining all the impacts its construction and existence have on the territory.

Additionally, both in the official version and from the perspective of the defenders, it is a project that will enhance the rest of the development and industrial megaprojects in the

Peninsula, such as pig and poultry farms, monoculture agribusiness, renewable energy plants, tourism, and real estate developments. "For us, it's not just a train, I mean, for us the train is really a gigaproject because what the train does is organize all the megaprojects we already had going on here into a single project." (Haizel, 2023)

From this understanding, the research aimed to uncover the implications or impacts identified as stemming from the Tren Maya megaproject. It is important to note that these impacts affect various levels and areas, but despite their diversity, they must be considered as interdependent factors. In the discussion, they are addressed in an organized manner according to the categories identified in the information coding. However, they should not be conceived as impacts separated by areas of study. On the contrary, they are impacts on the territory and everything it entails: humans and non-humans coexisting, as well as the natural and environmental, social, economic, and cultural dimensions.

Furthermore, some of these impacts affect the entire Yucatán Peninsula and even the other two states through which the train also passes: Tabasco and Chiapas. Others are specific to the state, city, or community from which the participants come, and finally, some specifically or differently affect Indigenous people or women living in these territories.

It may make sense in research terms to focus solely on the social or environmental dimension; in fact, it may seem strange to include so many social aspects within an environmental study. However, this research, in trying to discuss the territory, aims to convey the interconnection of all these effects as expressed by the interviewees. Therefore, by maintaining the findings as part of a whole, it also seeks to express the bigger picture of the implications of the Tren Maya in the Peninsula.

The discussion of these impacts, based on the experience of the defenders and supported by field observation data, helps construct the perception of the train's promise of development. Moreover, the sample of women defenders allows an understanding of the challenges they face due to their gender in the context of the train. This analysis culminates in the defense of the territory, which, through various actions, seeks to resist the Tren Maya, the development discourse, and highlights in a real case the importance of the decolonial perspective within environmental justice.

Thus, it contributes to the research questions, which are recalled as follows:

I. What are the implications of the Tren Maya in the Maya territory?
II. How is the development proposal posed by the Tren Maya perceived?
III. What, if any, differentiated implications are faced by women in the territory?
IV. What does the defense of the territory against the Mayan Train consist of?

With this in mind, and returning to the coding of the interviews described in the Methods chapter, the results can be grouped into three main themes. Firstly, many of the implications of the train in the Peninsula are negative impacts that correspond to the Colonial Promise of Development. This theme aligns with the critique of the development discourse and the challenges of megaprojects previously described. Environmental, socioeconomic, and security impacts were found that apply to the general population of the Peninsula, as the interview testimonies are enriched with field observations. Furthermore, this theme is particularly interesting when viewed from the perspective of the people, mainly Maya women, towards development due to their intersectional view on specific impacts for women in the region.

Secondly, considering how the development proposal is perceived and continuing with the implications of the train, the changes in living circumstances reported by the interviewees correspond to the Threats to the Territory from their Mayan tradition and identity. Especially from the perspective of territory as the space that inhabits their culture, it is found that the implications of the train go beyond those described in the first section of this chapter, reinforcing the importance of a decolonial perspective within environmental justice. Additionally, the perspective of women defenders further deepens the understanding of territory and the threats it faces.

Finally, the third theme addresses the defense in response to the Tren Maya. This theme culminates the analysis of the previous two themes, fully responding to the perception of the development discourse and the actions taken to defend the territory. The discussion highlights how interconnected the three identified themes and categories are, reinforcing that adopting the concept of territory allows for a much more holistic and close-to-reality overview of the case study.

5.1.1 The Colonial Promise of Development

5.1.1 The Colonial Promise of Development

In examining the ways in which the discourse surrounding the Maya Train has been perceived and experienced, a series of problems with the promises of development have been identified. These issues reveal negative implications across multiple dimensions that perpetuate colonial practices and impact the population of the Peninsula. Additionally, there are differentiated effects that women, in particular, face.

Firstly, the environmental impacts are highly concerning. As previously mentioned, the Peninsula is characterized by karstic soil, cenotes, underground caves, wetlands, mangroves, jungles, and the species that inhabit these ecosystems. Given that the Maya Train is promoted as a sustainable development project, it is necessary to revisit critiques of this environmentally friendly development alternative previously discussed by Escobar (2012), Steger (2023), and Roy and Hanaček (2013).

When designing a project like the Maya Train, the interests of development often outweigh other considerations. Even when aiming for sustainable improvement, the project is built upon the same flawed and Eurocentric discourse. “There are no Environmental Impact Assessments (MIAS) or information, and the development of their territory is not allowed according to ILO 169, nor does it comply with Escazú. The popular and indigenous consultations were rather simulated processes, not truly providing information on all the implications of the train. In fact, to date, there is no master plan detailing the entire scope of the train, and both its route and the number of stations change constantly; it is not fully planned” (Lizbeth, 2024).

An example of this situation is evident in Section 5 South of the Maya Train, which connects Playa del Carmen to Tulum.

Figure 6 Cement pillars drilled into a cave.

Figure 7 Aerial view of tracks and a cement-filled cave perforated 4 times for the installation of pillars (taken by Elias Siberborn)

This section is particularly controversial due to the environmental damage the train has caused in this area. In prioritizing development goals, the construction of this section diverted from the original plan inland to avoid conflicts with hotel owners, resulting in the destruction of thousands of trees and the alteration of fragile ecosystems. The Federal Attorney for Environmental Protection (Profepa) detected cement spills in caves and unauthorized machinery use, causing irreversible damage to the karst system and cenotes in the region. These issues are further exacerbated by archaeological findings of incalculable value (Jorge, 2024).

The Secretary of Finance, Rogelio Martínez de la O, speaking about the significant increase in the cost of the Maya Train, explained that it is due to encountering "physics" and "nature." He stated, "This always happens with large projects. The work is carried out, and as it progresses, issues that need to be resolved are found. For example, in section 5, it was necessary to opt for viaducts, meaning elevating the train above the ground, beyond what was originally planned, because many original vestiges have been discovered" (Dean and Nogueda, 2023).

On the other hand, socio-economic factors such as gentrification have been identified due to the influx of massive real estate developments, tourism, and hospitality businesses, as well as the external population moving to the Peninsula for work. The cost of living is rising exorbitantly. “Valladolid, which is extremely expensive and heavily gentrified, where we are being displaced from our city by people who came because they see it as an investment opportunity. They think, "Oh, look, it's not just a magical town, it's not just a tourist spot, it's not just a peaceful place, there's a train station here, so we can invest." And we're finding ourselves in a territory that is no longer ours, a territory we've been losing because

unfortunately, we also come from a pandemic that left people in a vulnerable economic situation" (María Candelaria, 2024)..

With this urban and economic growth, which is also legitimized by national and international institutions, reactions to the train are divided. It is clear that people from different areas express their rejection of this project. However, fieldwork showed that many people in the region support the train due to promises of improved quality of life, job opportunities, and industry. Before the train, they did not receive social program support, nor were these varied job opportunities available. Additionally, with the possibility of selling their land for development, they take it as an additional opportunity to get funds. Nevertheless, this further breaks the social tissue of the municipalities. "So, if they're arriving and offering me much more than my house could be worth, I sell it and leave where I am, moving to the city's outskirts or a nearby community. We're finding that today we are surrounded by a bunch of hotels, cafes, and spaces that outsiders come to establish, spaces to which local people have no access. It's not just because they might look down on you for not fitting the type of clientele they expect, but also because it's economically unfeasible for locals. So today we are in a city that we've been losing and will continue to lose more and more" (María Candelaria, 2024)

Nevertheless, these indications of development and economic benefits are questioned by the defenders, who reflect on why the fulfillment of basic needs that were unmet before has to be specifically tied to the train as a development project. "I think that's why we have so much distrust towards institutions. Right now, the UN [UN-Habitat in the consultation process] has been key. For example, in Campeche [in the Indigenous consultation], officials and the representative of UN-Habitat told them, 'Either you accept the project, or you won't have water' because they know that the problem in Calakmul is [access to] water. So, they say, either

you accept it or you won't have water. Why is it that now [with the Tren Maya] they can bring water when we have been asking for water for years, and now, because of this train, there will suddenly be water? Why is there this conditionality, and this happens everywhere?" (Anonymous comment, 2024)

This response aligns with how the discourse of development is presented as the universal epistemology of modernization and civilization to resolve poverty but ultimately perpetuates underdevelopment to maintain colonial dynamics (Escobar, 2012; Quijano, 2000). The acceptance of the train is understandable because it evokes emotional elements of recalling the era when the train existed in the region (see section 3.4.1). Additionally, there is indeed local economic benefit, especially in activities like hotels, food services, and some services catering to the floating population brought by the construction, as well as social program support, which is money that people did not have before.

Furthermore, as shared before, during consultations, people were asked whether they agreed with the train, and the information presented highlighted all the benefits it would bring, such as hospitals, infrastructure, and water access (despite the abundance of water in the region, access is not necessarily guaranteed). With all these promises and without information on the impacts, many people responded affirmatively and supported it. Poverty is used to convince them through programs like Sembrando Vida.

However, "the consultation process for the Maya Train has been widely criticized for its failure to comply with international standards for prior, free, and informed consultation. Despite conducting a 'National Consultation' in November 2018, the project had already been announced, and bids and contracts were initiated before this consultation, violating its prior

nature. The event in Palenque, Chiapas, where the 'first stone' of the project was laid, was denounced for politically using Mayan ritual symbols" (Candelaria, 2024). This is clearly reflected in the example of the consultation carried out in November and December 2019, which resulted in 92.3% approval, even though only 2.78% of the total population participated (Redacción del Economista, 2019). Additionally, it is noted that traditional indigenous authorities were not adequately recognized, and special emphasis was placed on offering social programs in parallel, compromising the free nature of the consultation, suggesting a political exchange rather than a genuine democratic exercise.

Haizel (2024) further explained the lack of genuine inclusivity in the consultations: “Not only were there no women, but their participation was actively discouraged. It was not an evident concern; the concern was to meet with certain people who could ensure the continuity of their process. When questioned about this, they said, 'We did the consultations, and the people who needed to come came,' but in reality, it wasn't about the people who needed to come; they brought in these people to legitimize their consultations.” She also highlighted that in Carrillo Puerto, for example, out of the 240 ejidatarios, most are men, yet they are deciding on the surrounding jungle territory that affects 40,000 residents. This small, male-dominated group holds the decision-making power over a much larger population.

On another note, there has been an increase in violence and insecurity. This includes the rise of drug trafficking groups in areas where they had not previously insured. However, these organized crime groups also arrive with the increase in floating population and economic speculation. There is a perceived deterioration in the security that people felt living in municipalities such as Valladolid, Tizimín, and Felipe Carrillo Puerto, compared to the current insecurity situation in major tourist centers, especially in Quintana Roo, such as Cancun, Playa

del Carmen, and Tulum, which have in common this development boom, particularly through tourism and the presence of so much external floating population that has not been controlled and is expected to worsen (Candelaria, 2024; Wilma, 2024).

In terms of impacts specifically affecting women, gender violence is already a problem in the country. “In 2021, at the national level, of the total number of women aged 15 years and over, 70.1% have experienced at least one incident of violence, which can be psychological, economic, patrimonial, physical, sexual or discrimination in at least one area and exercised by any aggressor throughout their life” (INEGI, 2021). In this context, with territorial changes and the arrival of all external stakeholders, there are reports of increased harassment, gender, and sexual violence since the arrival of the train. Additionally, there was a recognized need for a project of this magnitude, in the context of "a macho country," to include prevention, monitoring, and, if necessary, sanction measures for all violence, with considerations sensitive to violence against women and other groups such as youth and the LGBTIQ+ community who have also been affected. It is important to think about the implications for these groups and monitor warning signs to see if there are changes before and after the train (Mina, 2024).

This remark evokes two things. First, the fact that the discourse of development does not consider the realities of groups that do not fit the norm, thus mechanisms like those mentioned by Mina are not thought of. Secondly, it underscores the importance of integrating elements of Decolonial Environmental Justice previously mentioned to truly consider all the implications a project of this type can have on different groups.

It is evident that violence against women and their relationship with the territory falls within the realms of Decolonial Environmental Justice and Feminist Political Ecology. “The

extractive industry predominantly affects rural communities, with women suffering the most. Although resource extraction creates jobs, these are mainly taken by men. Women, responsible for household and natural resource management, face the harshest impacts of environmental damage, such as water pollution and air contamination. This situation exacerbates issues like domestic violence and alcoholism. Indigenous communities, especially women, are further disadvantaged by poverty, marginalization, and lack of land rights, rooted in colonial history" (Cirefice, 2019, 83).

Interestingly, this passage of Cirefice's appraisal of women facing extractivism agrees with the experiences of the defenders. María Candelaria commented that "the money people are getting in exchange for leaving their territory, well, they go to alcoholism. And now they have nothing, no money, and no territory, nowhere to keep their family and children. Now they will have to see where they go. Those workers who couldn't even support their family when they were earning money, they dedicated themselves to drinking, using drugs, using women's bodies. This resulted in a series of tremendous problems. [She was informed that] herpes rates and other sexually transmitted diseases are extremely high in the city" (2024). Moreover, Haizel referred to the impacts of glyphosate use in transgenic soy cultivation, which is another project linked to the Maya Train. They discovered that in the breast milk of women living in communities near the fields, they were consuming water contaminated by the pesticide as it permeated the aquifer and reached the cenotes and the entire water system of the peninsula, which was reflected in the breast milk.

Therefore, the promises of development associated with the Maya Train project have resulted in a range of impacts on the environment, socio-economic conditions, and particularly on women. While some local populations have shown support for the project due to anticipated

improvements in living conditions and economic opportunities, the observed data reveals significant challenges. Environmental degradation, socio-economic displacement, and increased security concerns are among the major issues noted. These findings highlight the importance of adopting a development approach that fully considers the needs and rights of all affected communities, ensures environmental sustainability, and addresses the specific impacts on vulnerable groups, particularly women. Integrating principles of Decolonial Environmental Justice and Feminist Political Ecology into project planning and implementation can contribute to more equitable and sustainable outcomes.

5.1.2 Threats to the Territory

This section covers the implications of the train and the perception of its promise of development. However, findings from the specifically Indigenous experience provide an even broader dimension by integrating the concept of territory. This concept allows for a clearer understanding of the interconnections between all the impacts and how they affect the territory. As the discourse around the defense states, when the territory is destroyed, so too are the lives of people, women, bodies, and beings of nature, such as animals, water, and land; it is not something isolated.

Threats to territory arise because the extractive and dispossession logic that commercializes nature is presented as beneficial. However, defenders perceive it as dangerous for the survival of their culture, lifestyle, traditions, and the place they inhabit. It is essential to highlight that this does not imply that the impacts faced by non-indigenous people do not affect the territory. However, this theme addresses the unique and distinct form of analysis brought about by living and believing under the conception of territory.

For example, when discussing the train's environmental impacts, it includes effects on the territory's health. Moreover, as everything is part of the territory, there is a direct association between the impacts on people's health and well-being and environmental problems. This also applies vice versa, making socio-economic and cultural issues inseparable from environmental ones.

For instance, the environmental impacts of the train resent ironies surrounding the bet for sustainable development. It is important to remember that the Tren Maya is presented as a sustainable development project in line with the 2030 Agenda described in the case study. However, when viewed within the context of the territory and all its implications, it can be quite devastating.

It is similar to the irony of the energy transition being pursued in the region, such as with solar and wind power plants, which are desirable for moving away from fossil fuels and coal. However, they are established through the dispossession of indigenous territory, cutting down jungle and forest, and without providing real benefits to the people displaced from their land.

On this subject, the Muuch Xinbal Assembly mentioned in a statement published in their blog: “The problem does not lie in the use of "clean energies," but in the way mega-corporations seize territories whose owners have only been used in political campaigns but, in the end, have never been considered in policies that promote the integral development of their lands” (Itzá, 2018). Even though the development narrative might have environmental benefits from a technical and institutional standpoint, treating it as anything other than territory is problematic.

Aligning to the discourse of sustainable development addressed by Escobar, the goal is to mend the relationship between people and nature (Escobar 2012). This is especially interesting since territory has always entailed the relationship between nature and society, the human and non-human. Instead of using it as a foundation to address issues such as poverty, the same flawed discourse of development evolves to try to fix the problem of environmental degradation.

On the other hand, as mentioned, the Tren Maya also includes the program Sembrando Vida. This program is presented (or imposed, depending on the perspective) again, maintaining the universal development discourse and even colonizing its practices with a planting model as a measure to mitigate environmental impact and "reforest." However, this involves promoting the planting of certain fruit trees without clear knowledge of the purpose of their production.

Being an idea that does not consider the reality of the territory has led to people seeking to benefit from the program's money, clearing (cutting down the jungle) their land to meet the requirement of having 2 hectares to plant. These measures do not align with the traditional milpa[3] planting methods shared, which typically involve maintaining the surrounding jungle and promoting conservation through crop rotation. "In the case of many of them, they accepted Sembrando Vida, even knowing it was wrong, even though it hurt them to cut down trees they had cared for, because you need a certain amount of hectares that not everyone has. The technicians will tell you how to manage those hectares. Many of my colleagues already had support from other collectives and had agroecological milpa plots or processes where they had cared for the forest. And to join Sembrando Vida, they had to cut down trees. [Those who join

[3] Milpa refers to the crops, planting land, and the traditional practice of cultivating crops by indigenous people throughout Mexico. This often include corn, tomatoes, beans, squash. It is planted along the natural vegetation, crops are often rotated and the land has periods of recovery (María Antonieta and Omar, 2024)

Sembrando Vida] receive a payment, I believe it is monthly, of $4500. In a community, you don't have a salary of $4500. In a way, they became government employees" (Wilma, 2024).

Joining this program is appealing because it is in regions marked by high levels of poverty accentuated by inequalities between areas with and without development projects. Up to 2018, the Peninsula had 45.5% of its population living in moderate to extreme poverty (Perez, 2023). having additional financial support tied to the program's planting is convenient for the families that can join. However, this concerns the defenders because people are no longer planting the milpa in their own way or on their own schedule, and traditional practices of seed exchange and methods that work for environmental and ecosystem maintenance and social dynamics are being set aside.

Now, turning to the job offers the government presents as one of the main benefits of the train for the region, this too is questioned, especially regarding the types of jobs and how they are offered or rather imposed. It is mentioned that many jobs are poorly paid, maintaining, as Escobar says, this idea of underdevelopment, which, despite having poverty alleviation as the main aim, does not actually solve it.

The industries and types of jobs promoted are those of other development projects linked to the train, such as farms, commercial monocultures, hospitality, and tourism, and now also some related to the maintenance and operation of the train. These offers come directly from the development proposal imposed from outside, in which indigenous communities and even the rest of the local population did not participate in designing. Therefore, they are expected not to reflect the types of job opportunities and options for improving the quality of life that aligns with their way of living.

These job offers result in people moving away from traditional activities such as milpa cultivation and backyard gardens of medicinal plants. They move away from living in the community and are forced to reconfigure their community life to commute to tourist centers. Additionally, it is complex because many jobs are actually offered to people from outside the region, and others are indeed for the region, including indigenous people, but to either exoticize their culture for tourists or for positions such as cleaning, which are generally poorly paid. This reconfiguration of their lives ultimately fragments the social fabric and also permeates the fragmentation of their identity, which will be discussed later.

Furthermore, the peninsula is being sold in a way they see as indiscriminate. The so-called change in land use that occurs when clearing land for the train is happening not only from a legal standpoint by those who govern. It is changing its communal use, which traditionally foresaw ways to conserve the forests and jungle from traditional knowledge. Now, it is commercialized for exploitation. "It is dramatic that the local people, the Maya people, no longer see their territory as something to defend, care for, preserve, or protect, but as a dollar sign" (María Candelaria 2024).

Traditionally, the solares[4] and land were passed down from grandparents for the cultivation of the milpa to ensure community well-being and subsistence. Nevertheless, when it is sold often for an unfair price, the money, once received, cannot guarantee prosperity and well-being for the seller. On the same line, most defenders expressed special concern for the future generations who would be left without their land and connection to their territory. Referring

[4] Solar is a Maya concept of a way to organize land. According to the Colectivo Suumil Móokt'aan, “a solar is a collective learning space within their community: “The solar maya has a deep connection with our territory. It is the space where families live within the community. Together with the milpa, it represents how we have historically organized our lives” (“The Solar Maya as a Collective Learning Space,” n.d.)

mainly to the concern that without their land and connections to territory, with the marginalization of the traditional knowledge of the milpa, their children and grandchildren will not have a secure livelihood and good life that comes with the traditional ways of living.

Moreover, from the defenders' perspective, there is an additional layer of concern as they comment that with the sale of territory, many Maya women are disadvantaged since land ownership is traditionally given to men and inherited by men. This means that in many cases, it is the men who, in this context of weakened identities and interest in the promise of development, are selling the territory without the input of women in the decision-making process.

A case that comprehensively exemplifies many of the implications described in this section so far is that of the May family. The May family is one of several that make one of the communities between Valladolid and Izamal that depend on the cultivation of their ejidos.[5] The construction of the Tren Maya divided the milpas (communal lands) in half. The people's livelihood primarily depended on cultivating milpas with crops such as corn, beans, tomatoes, and squash and raising animals that make up their traditional "livestock," including wild turkeys, deer, and pigs.

[5] An ejido in Mexico is a form of land ownership that consists of a community of farmers who collectively own and work the land, but each member has individual rights over specific parcels. This land tenure system includes both common-use areas (such as forests and grasslands) and individual plots for cultivation. Ejidos are essential for agricultural production and environmental conservation in Mexico (Morett-Sánchez et al. 2017).

Figure 8 Construction in one of the parcels of the Ejido with a fence to separate it from the train tracks.

The construction of the Mérida-Cancún highway had already divided their ejido, but they were compensated, and the community's ejidatarios had adapted practices to the presence of the highway, such as crossing it with their vehicles and livestock to reach the milpas (farmlands). However, the train's construction included a retaining wall dividing the two directions of the highway and elevated tracks for the train, preventing them from crossing to their milpa for the past two years.

Figure 9 Train tracks with the highway Merida-Cancun and the retaining wall in the back

They were offered the construction of livestock crossings along the wildlife crossings created to mitigate environmental disruptions. However, as shown in the following figure, these underground crossings are not large enough for their vehicles to transport their harvest or livestock. Additionally, they described that given the proximity of the water to the surface of the land (phreatic level) and the karstic soil in the region, during the wet season, all those crossings get flooded and cannot be used for months.

Figure 10 Livestock crossings

The family expressed the economic implications this situation has had on all the community's families that depend on the milpa. Now, they have to buy products from outside at higher prices, even when they used to be able to grow them themselves. Also, they spoke about the sense of insecurity from workers entering their lands without permission and their unconformity that this construction takes even more space off their land without any compensation. Due to this issues, even though they are not considered as defenders of the territory, they have taken part and invested a lot of time in a legal battle to seek a solution to this issue.

Among these grievances, they highlighted that this disruption to their traditional practices has exacerbated the detachment of many young people in the community from their way of life. As mentioned before, there is also a hit to the identity and ways of living of the people. They already identified, as is the case throughout the region, that the jobs brought by imposed development projects and the marginalization of rural and indigenous communities caused young people to prefer working in tourism or on farms, leaving their communities and

fragmenting them. Now, with the prolonged inability to access their lands, several of the family's children have already left the community.

On the other hand, it was already mentioned that an effect shared by the defenders, which particularly affects women, is the increase in gender-based violence. However, this finding has an additional dimension. From their way of conceiving the territory, as mentioned in the Literature Review and Theoretical Framework chapter, the territory can also be viewed from the body. Thus, the violence that deforests the forest and contaminates the water is also seen as impacting their bodies simply because they are women.

Perceived as a mirror to what is being done to the land, women experience all the aforementioned effects compounded by the increasing male population due to the arrival of workers, the army, and organized crime groups. They have noticed an increase in harassment and sexual violence. "In the same way that the Earth is seen as an object to take from, exploit, and use, women's bodies and lives are also seen that way, as another object for the service and support of the male system. So, yes, it makes a lot of sense that the same violences that cross women also cross the Earth and nature" (Anonymous B 2024).

Defender Haizel de la Cruz summarized it very clearly: "Women, in addition to violence and harassment, are also experiencing a difficult stage of figuring out how to survive and how to make our family survive. When we see that our husband has no job and no longer has the land and we are not eating, then [we have] the worry of what we will offer our children. Before, at least we could go to our crops, pick a little tomato, roast it, and give it to our children. Now there is none of that. Now we are living in a difficult time, food costs are rising. And as a mother, that worries me. Besides figuring out how to give something healthy to our children

when we also know there is contamination everywhere, from other projects like farms, even the water we give them is getting contaminated" (2024).

All these threats to the territory lead defenders, activists, and indigenous communities to question: is the train really Maya? The development proposal calls itself Maya to legitimize it and attract tourism, but it does not actually consider Maya practices and the vision of the territory. From the perspective of defense, it is rejected as Maya because, from that standpoint, respecting their culture would not destroy the territory; destroying the territory is destroying the culture.

This double discourse of marginalizing the Mayan ways of life, being and knowledge, but using their culture as a promotion for the train and tourist complexes is also related to the decolonial gaze. The Mayan Train Development discourse works from that colonial force of development and search for economic benefits not only to destroy the epistemology of the territory of the Mayan communities, but also seeks to "mold" (Burman 2017, 935) their culture so that be a tourist and attractive product.

5.1.3 The Defense

The previous analysis then leads to an understanding of what the defense of territory, specifically for women, entails. To understand the origins of the defense of the territory, it is first necessary to recognize the context of development failures and threats to the land. Facing these challenges, the defense strategy revisits traditional ways of living, knowing, and being. One of the main forms of resistance shared with me was "keeping traditional ways alive."

With the arrival of development projects, "It has led those from indigenous communities to want to blend in, to westernize themselves to be accepted" (María Candelaria, 2024). Therefore, many of their activities focus on strengthening Maya identity, traditions, ways of life, and language. The survival of the territory and questioning hegemonic discourses of progress are crucial for their continued existence. "Embroidering, planting is a way of defending the territory, saving the land, living life, remembering the grandmothers, continuing with the culture" (Wilma, 2024). These actions might not resemble typical environmental activism protests, as Ulloa predicts, but are more closely related to preserving traditions.

Furthermore, there is not necessarily a common, articulated defense that encompasses all communities and indigenous people in the area against the train. Depending on their location, some communities have been dealing with development processes for a long time. As part of reclaiming their identity, they also take on the role of informing and bridging the information gaps surrounding the Maya Train and other projects in the Peninsula. "It is a slow process of root-level change, but it is important" (Wilma, 2024).

A crucial aspect of this defense is making information accessible. For example, the Muuch Xinbal Assembly considers accessibility by providing information in Maya, creating "No radio" podcasts on the internet, and for those without internet access, sharing via WhatsApp or using speakers in the community. This not only makes information more accessible locally but also allows outsiders to access the information online. Another common defense action was filing legal injunctions, although, as discussed in the case study, the legal route has proven ineffective in supporting institutional measures.

In the specific case of women in the defense, an important aspect is their effort to strengthen their role and place in decision-making processes. The consultations, by design, inherently alienate women from these decisions. It is not about glorifying indigenous communities because, as part of the broader Mexican society, they also reproduce machismo and inequalities among women. One notable issue is land tenure. If consultations are conducted with selected individuals like ejidatarios and community leaders, more men tend to be involved.

Haizel (2024) highlighted the lack of genuine inclusivity in the consultations: “Not only were there no women, but their participation was actively discouraged. It was not an evident concern; the concern was to meet with certain people who could ensure the continuity of their process. When questioned about this, they said, 'We did the consultations, and the people who needed to come came,' but in reality, it wasn't about the people who needed to come; they brought in these people to legitimize their consultations.” She also highlighted that in Carrillo Puerto, for example, out of the 240 ejidatarios, most are men, yet they are deciding on the surrounding jungle territory that affects 40,000 residents. This small, male-dominated group holds the decision-making power over a much larger population.

It's important to note that not all people in resistance identify as defenders of the territory. However, through reflecting on their struggles and resistance activities against megaprojects and dispossession, they consider all dimensions of the struggle for the territory: “those who fight for children, those who fight for women, those who fight for the environment, those who fight for water […] all of these are related to these megaprojects because these megaprojects are threatening everything, even our culture” (Wilma, 2024). Additionally, “To do the work of defending the territory requires political awareness, and we are far from having a political and social historical consciousness among the people. […] The political issue is very difficult to

address, for people to get involved and take on a role, not necessarily partisan, but political" (María Antonieta, 2024).

For this reason, actions to strengthen identity and community bonds have become crucial for women defenders: "Opening these spaces also helps us talk about our lives, what is happening in our community, and that helps us. It also helps us think about what we can do to protect ourselves. And the Community Center has given us the opportunity to meet to talk about certain pains" (Anonymous B, 2024).

While women do participate in some decisions and in the defense, they recognize that there are limited spaces for them to develop both in political decisions and specifically in the territory. For example, their involvement in farming spaces is often restricted to backyard gardens. While food production and related activities are important, they are limited. From their perspective, women participate by doing things, but not necessarily with the precise awareness of defending the territory.

Many women do it out of tradition, because culturally, that's how their grandmothers and mothers did it, as a way of healing, having medicinal plants in the backyard. The defense of the territory in these small spaces where they have decision-making power is limited because real defense of the territory means having the ability to decide on everything happening within the territory, not just the garden. Men, who have more decision-making power because they participate in Ejido Assemblies, might represent the collective interest of the ejido, but not necessarily that of the entire community.

6. Conclusions and Recommendations

This research demonstrates how the case of the Tren Maya exemplifies the implications of megaprojects not only in Mexico but across Latin America and globally. These megaprojects perpetuate the Eurocentric, capitalist, and colonialist discourse of development as the sole alternative and universal salvation to improve the quality of life, well-being, and prosperity of what has been termed the Third World. This discourse particularly targets indigenous groups and women, often considered less civilized and closer to nature, who are deemed in need of salvation through development. This imposition extends even to sustainable development models, enforcing paradigms such as large-scale production, monocultures, energy transitions, and tourism infrastructure.

Recognizing and integrating other equally valid and important worldviews, such as those of the Maya culture and other indigenous peoples inhabiting the Yucatán Peninsula, is crucial. Adopting a decolonial perspective of environmental justice is essential in questioning the development discourse, allowing a broader understanding of diverse ways of life, being, and knowledge that are deeply connected to their ecosystems and environmental protection.

This approach emphasizes the significance of maintaining human and indigenous rights and addressing intersectional issues, particularly how women are differentially impacted. While provisions such as the Escazú Agreement and ILO Convention 169 exist, and while efforts within megaproject management aim to mitigate negative impacts and promote prosperity, these measures fall short without critically questioning the underlying development discourse.

Implementing these tools is essential, as evidenced by their inadequate application in the Tren Maya case. However, a higher goal is to genuinely amplify and consider the perspectives of

indigenous communities, original inhabitants, and women at the forefront of these struggles. Their insights are vital for truly understanding the impacts and for reimagining the concept of territory.

The concept of territory, as conceived by indigenous worldviews, extends beyond a geographical space to encompass a holistic system where human and non-human beings coexist interdependently. This perspective is not exclusive to indigenous groups; it offers a valuable framework for all to understand and work within. Viewing the Earth and its inhabitants as an interconnected system challenges the imposition of development models that often make little sense within this broader, more integrated understanding.

By prioritizing these perspectives, a more inclusive and effective approach to environmental justice and sustainable development can be fostered, one that genuinely respects and incorporates the knowledge and rights of those most affected by megaprojects.

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