Master's thesis

From Low-carbon Transition Agendas to Ground Reality: Life Reproduction, Women and Ethnicity

by

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Political participation of women of San José Tipceh (Yucatan, Mexico) against the Photovoltaic Park Ticul A and B (2016 to 2023)

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Introduction

In the face of the ecological crisis, ambitious sets of proposals are being adopted by states worldwide to reduce GHG emissions. A transition to "zero-carbon solutions" or "clean energy" are some of the centrepieces of these schemes. To achieve such targets, national governments, institutions and corporations (especially from the global North) are advocating for an "energy transition". However, these agendas are increasingly highlighted by the multiple exclusions in their construction and their function as platforms for the reproduction of historical social inequalities.

A critical perspective to examine these exclusions and inequalities is through the lens of gender, particularly the sexual division of labour. For decades, feminist political economy has pointed out how the capitalist sexual division of labour is a structure that subordinates and erases the tasks of reproduction of life as opposed to those that produce surplus value, and with it, women, who have historically been assigned the former (Costa, 1975; Vogel, 1983; Federici, 2004; Salleh; 1997).

When it comes to environmental matters, ecofeminism and Feminist Political Ecology (FPE) have proven the exclusion of issues related to the reproduction of life in environmental agendas, discourses and practices, as well as a dynamic of resistance to this exclusion by women, who, often point out these omissions but remain excluded from formal decision-making spaces. Moreover, they have also shown how these agendas continue to perpetuate social inequalities not only through practices but also through discourses and representations.

These gendered dynamics in resource governance have been analysed in different domains, such as environmental politics (MacGregor, 2010), the global climate change regime (Morrow, 2017), socio-environmental conflicts (Zambra & Arraigada, 2019) and the management of specific communal resources (Adjei et al., 2018). Nevertheless, research on these topics has not been exhaustive. In particular, the study of the political participation of women in socio-environmental conflicts remains a relatively unexplored topic[1].

The study of political participation in socio-environmental conflicts is of particular importance, as they often represent the local response to the materialisation of abstract discourses and agendas gestated in larger scales of governance. *Socio-environmental conflicts* are those related

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[1] Some of the research work carried out in this area includes: Zambra & Arraigada (2019), Delgado (2017), Bolados García & Sánchez Cuevas (2017).

to the access and control of natural resources and land, where different actors have divergent interests and conceptions about them, and are confronted under great conditions of power asymmetries (that derive from social relations of class, gender, race or ethnicity) (Svampa, 2019).

This type of conflicts often occur in *Green Sacrifice Zones*, areas that bear the negative socio-environmental impacts of environmental policies, especially those aimed at promoting a *low-carbon transition*[2] (for example, those that promote the generation of renewable energy) (Zofragos & Robbins, 2020). These impacts are rooted in what is being called *green extractivism*: the continuation of grabbing and exploitation of natural resources and land by these "capital-driven energy transition" agendas (Verweijen & Dunlap 2021).

This concept is a derivation of what is commonly called *extractivism*, a model of resource appropriation that fuels the World-economy and is sustained by uneven geographical relations globally (Andreucci et al., 2023). Extractivism expropriates certain bodies-territories of their respective territories-livelihoods, creating disruptions to the processes of life's reproduction in the zones where it is deployed (Araoz, 2013). In the case of "low-carbon transition" policies, this expropriation arises from the control of land (Rivi Bruna, 2021), a necessary step to carry out projects such as large-scale renewable energy generation facilities.

Being immersed in uneven geographies (rooted in colonial relations), in many cases, the victims of Green Sacrifice Zones are minority groups, such as indigenous communities or ethnic minorities (Scheidel et al., 2020; Sovacool, 2021). In these populations, the response to the impacts of extractivism (or green extractivism) is linked to historical struggles for the defence of territory (Svampa, 2019), and it is mainly women who express the impacts of this model on the reproduction of life in their communities (Cruz, 2020).

The political participation of the indigenous and peasant women who inhabit these zones is therefore particularly important in understanding how climate agendas, discourses and practices affect the reproduction of life on the ground and the meditations on this relationship. At the same time, the construction of political subjects at the most localised scales, depicts the

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[2] The concept 'Low Carbon Transition' refers to a shift from a fuel economy to a low-carbon one. Sustainable energy systems, such as the use of renewable energy sources are seen as key for this shift (Earth System Governance, n.d.).

reproduction of intersected social inequalities (such as those of gender and race/ethnic[3]) by these policies.

In this vein, the main research question that drives this investigation is: what are the motivations of women (in relation to those that drive men) to participate politically in socio-environmental conflicts in Green Sacrifice Zones?[4] Sub-questions include: What are the materialised impacts of climate change agendas and how do they intersect with dynamics of social inequalities within countries?, What are the general motivations of indigenous peoples to participate in this type of socio-environmental conflicts?, and: How do these conflicts influence the political agency and activism of indigenous women?

Besides the gap in the literature, this research is crucial because it addresses the intersection of climate policy (specifically "low-carbon transition" agendas), life reproduction, gender and ethnic inequalities. By focusing on the experiences and political participation of indigenous women, this study highlights the grounded gendered and ethical dimensions of the proposals aimed at addressing climate change, such as those promoting the generation of renewable energy. In doing so, it contributes to the understanding of how global climate agendas perpetuate impacts life reproduction and intersected social inequalities. As well it aims at offering insights for developing more social just climate agendas.

The theoretical framework that guides this research consists of two components. On the one hand, it draws on the theoretical insights of ecofeminism and FPE regarding the link between the sexual division of labour and women's political participation in environmental issues, as well as gender and racial exclusions in climate policy. On the other hand, it incorporates the contributions of political economy and political ecology to explore the localised material impacts of "low-carbon transition" policies. Concepts such as masculinisation of environmental policy, extractivism, green extractivism, Green Sacrifice Zones and socio-environmental conflicts provide the theoretical-conceptual framework for answering the research question.

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[3] As it will be explained later (in: 1.1.2.1 Intersectionality, consubstantiality, race and ethnicity), this thesis employs instinctively the terms "racial" and "ethnic" to denote a dynamic of social segregation and subalternisation based on phenotypical and cultural traits.

[4] Rather than having a perspective on "motivations" and "political participation" grounded on methodological individualism, this thesis conceives both terms on a broader notion of action, based on shared experiences and collective agendas and agency (this is further explained in: 1.1.3 Debates around the sexual division of labour and women's political participation in environmental matters).

For the empirical analysis, this thesis was based on a socio-environmental conflict around the building of a large-scale photovoltaic park, which took place between the years 2016 and 2022 in the Yucatan Peninsula, Mexico. This case was chosen because of the magnitude of the conflict and its insertion into an expansive wave of infrastructure construction for renewable energy generation in Mexico, a country that, like the rest of Latin America, has historically been the target of natural resource extraction. This thesis uses a qualitative research methodology in which a series of testimonies from participants in the conflict were analysed using Qualitative Content Analysis to identify patterns and themes related to their motivations (gathered from secondary data).

The thesis is structured as follows: first, after this introduction, the methodology is described in detail in a single section. The first chapter then explores the insights of ecofeminism and FPE on the links between the sexual division of labour and environmental issues. It also situates and reviews the existing literature on women's political participation at this intersection. The second chapter establishes theoretical and conceptual links between "low-carbon transition" agendas and extractivism in order to capture the socio-environmental impacts of dominant approaches to the climate crisis. The third section describes the context and develops the study case along with the findings of the analysis and their discussion.

Methodology

Case Study

Due to the qualities of the social process studied, and informed by the theoretical-epistemological framework briefly exposed in the introduction, the present thesis used a study case to answer the research question. Following Levy (2008), the Case Study employed here may be classified as *Hypothesis-Generating* as rather than describe, interpret, or explain an individual historical episode, it aims to generalise beyond the data. Under certain types of hypothesis, this type of Case Study allows the researcher to contribute to the process of theory construction, however, it also has limitations such as constrained external validity, lack of ascertainment and difficulty in replication (George and Bennett, 2005; Poteete et al., 2012).

The case study chosen was a socio-environmental conflict against a photovoltaic park that took place in the Yucatan Peninsula, Mexico, from 2016 to 2023. My choice was based on the notoriety of this type of conflict in this region, compared to others (in Mexico and elsewhere) and disponibility of secondary sources. As well as cultural and intellectual proximity to interpret the data (language, habitus, prior knowledge) and personal motivations.

As described in the research corpus (chapter 2.1.3 Green extractivism in the Yucatan Peninsula, Mexico), the Yucatan Peninsula has experienced a proliferation of renewable energy projects in the wake of the 2015 Energy Transition Reform. The response has been the implosion of various socio-environmental conflicts in the country (especially in two regions: the Isthmus of Tehuantepec in Oaxaca and the Yucatan Peninsula), which have dragged out historical disputes of indigenous peoples in Mexico for the defence of their territories. In particular, the case against the Ticul A and B megaprojects was chosen because of the greater amount of information found on other conflicts of this type in the Yucatan Peninsula. It was particularly important to find testimonies from women who were actively involved in the resistance to the photovoltaic park.

Method

The present thesis made use of the techniques of Qualitative Data Analysis (Content Analysis) to identify the political motivations behind the testimonies of inhabitants of San José Tipceh who opposed the establishment of the projects Ticul A and B. Those testimonies in favour of the photovoltaic park were not taken into consideration, in the same way as those testimonies against, but which did not belong to inhabitants of San José Tipceh. First, the tasks of collecting

data and its transcription (in the case of audio-visual material) was carried out. Later, a process of Inductive Category Formation was used to classify the implicit and explicit allegations present in 15 testimonies (8 made by male participants and 7 by women).

Qualitative Content Analysis is a data analysis technique bound to qualitative and quantitative research standards, therefore, it can be defined as a mixed methods approach. It starts "from the methodological basis of Quantitative Content Analysis but to conceptualise the process of assigning categories to text passages as a qualitative-interpretive act" (Mayring, 2014, p. 10). However, because of its focus on description, this method is not suitable for theory-building that provides analysis that goes beyond the data. For example, in the case of the research question, Qualitative Content Analysis sheds light on the motivations expressed, and the coding process allows us to find patterns among them, but it does not capture the deeper mechanisms that drive behaviour. Even with these considerations in mind, Qualitative Content Analysis seems to be the most comprehensive and accurate textual analysis approach for qualitative collected material (Mayring, 2014).

The Inductive Category Formation was a systematic process supported by the software QCAMap, informed by the steps of content-analytical rules established by Mayring (2014, p. 80) (in line with the use of the software), which are:

1. Establishment of research questions and theoretical background.
2. Establishment of a selection criterion, category definition and level of abstraction.
3. Working through the text line by line while formulating categories (The coding unit was composed of sentences or a specific statement that reflects a particular motivation – the context unit was macro-propositions that reflect linked sentences of a specific statement. Some arguments fell in more than one category).
4. Revision of categories and rules after 10-50% of texts.
5. Final work through the material.
6. Intra-coder agreement check.
7. Interpretation of final results (which was done quantitatively by measuring frequency of the codes classified in categories and calculating their proportions on the basis of the total number).

In total, 133 codings resulted, classified in the categories described in the following table:

Table 1. Categories from Inductive Category Formation and their definition

Rejection of manipulation, imposition and threats	All the arguments concerning failures and omissions in legal procedures and coercive measures aimed at exercising power and imposition (mainly in the relationship between the company and the authorities with the inhabitants of San José Tipceh).
Rejection of violence and confrontation	All the arguments for rejecting physical violence and confrontation stemmed from internal divisions within the community, following the different positions of the residents regarding the megaproject.
Community benefits, solidarity and justice	All the arguments concerning collective well-being (general, without specifying in which aspect), the long-term sustainability of the community and the empowerment of the community to make decisions concerning its future as a whole. As well as justice concerning the distribution of benefits and impacts derived from the megaproject between the company and the inhabitants.
Defence of community rights, dignity and autonomy	All the arguments related to the existence and validity of the community's rights, especially the right to have a say and decide on their own lives as indigenous people. As well as mentions of the dignity of the people (e.g. not accepting to receive 'little' for their land).
Defence of livelihoods and impact on daily life	All the arguments against the direct impacts of the project on the community's livelihoods and/or on the material conditions of daily social reproduction (e.g. low incomes, lack of education) (without specifying impacts on natural resources or land use).
Care of children and future generations	All the arguments concerning the negative impacts of the megaproject on the lives of children and future generations (especially health and economic conditions).
Defence of natural resources and socio-environmental wellbeing	All the arguments aimed at the protection of natural resources, the environment, the territory and the socio-environmental well-being of the community (with emphasis on community health).
Criticism of institutions and authorities	All the arguments against the performance of the authorities (their alliance with extractive companies, inaction, coercive practices, corruption and their role as promoters of internal divisions).
Economic gains	All the arguments concerning the economic (monetary) gains derived from the negotiations with the company.
Defence of community modes of production (*ejidos*)	All the arguments in favour of the survival of communal land against its privatisation.

Source: Own elaboration

Out of the total 133 codes, 55 (41.35%) were attributed to male agents and 78 (58.65%) to female agents. To ensure equal representation of both male and female perspectives in the analysis, weights were assigned to balance the contributions of each group, making each group representative of 50% of the total population.

The weights were calculated using the following formulas:

$$\omega m \; = \; total \; population(0.5) \; \div \; number \; male \; agents \; codes$$

$$\omega f \; = \; total \; population(0.5) \; \div \; number \; female \; agents \; codes$$

Where:

$\omega m \;$ = weight for male agents codes.

$\omega f \;$ = weight for female agents codes.

$total \; population \;$ = total number of codes (133).

Substituting the values a weight of 1.209 for each male actor code and 0.852 for each female actor code was obtained.

The reasons for using quantitative interpretation are that it is particularly useful when presenting the most pressing stressors in a text (especially when comparing them across different groups of people) (Mayring, 2014). Therefore, to study the political motivations of women, in contrast with those shown by men in our study case, quantitative interpretation of the results seems to be an adequate technique.

Sources

Due to its inherent flexibility, qualitative content analysis does not necessarily require fieldwork or other specific data collection or analysis techniques (Poteete et al., 2012; Barbour, 2014). Thus, it can deal with a wide range of texts such as newspapers, documentations or websites (Mayring, 2014, p. 43). Due to the constraints for doing fieldwork, this thesis relied on the use of secondary data, which was gathered from different sources: videos and minutes of community meetings, interviews conducted by documentarians and scholars, and testimonies in activist spaces: Alarcón (2017), Asamblea Maya (2018), Asamblea Maya (2019), Mekaoui & Baños Ramírez (2021) and Gayou Soto (2024). The criteria to select the data was the inclusion of direct testimonies (in the form of audio-visual recording, transcription or textual quotations – no interpretations or paraphrases) of inhabitants of San José opposing the megaproject Ticul A and B. The context of each source is described in the following lines:

Alarcón (2017) is a documentary called "Voces de San José Tipceh ante la amenaza de Vega Solar" (Voices from San José Tipceh on the Vega Solar threat) produced by the Mexican journalist Daniel Alarcón. It shows the testimony of seven inhabitants of San José arguing why they opposed the building of the photovoltaic park. The interventions are free, with minimal

intervention by the producer, and were carried out in the streets of San José Tipceh at the beginning of the social confrontations.

Asamblea Maya (2018) and (2019) are videos and a minute of meetings held in the Assembly of Defenders of Mayan Territory, Múuch' Xíinbal (Asamblea de Defensores del Territorio Maya, Múuch' Xíinbal, in Spanish) where land defenders of San José Tipceh exposed their arguments against the construction of Ticul A and B in front of other land defenders of the Yucatan Peninsula when the conflict was at its height. The objective of the Assembly of Defenders of Mayan Territory, Múuch' Xíinbal is to defend the land of mayan communities of dispossession by governments and capitalist enterprises (Asamblea Maya, 2023). These data were published in the official media of the Assembly.

Mekaoui & Baños Ramírez (2021) is a paper written by Moroccan anthropologist Amina El Mekkaoui and researcher at the Universidad Autónoma de Yucatán Othón Baños Ramírez, which aims to illustrate the exercise of power and its counterbalances between the actors involved in the conflict over Ticul A and B. The methodology consisted of an ethnography that collected testimonies from a variety of participants: key community figures and locals with and without agrarian rights. From this, three women's testimonies were extracted, which included in the original paper to justify how the socio-environmental conflict had empowered women to voice their concerns and interests regarding the photovoltaic park This paper was published in a scientific journal one year before the cancellation of Ticul A and B.

Gayou Soto (2024) is a paper written by the journalist and activist Sandra Gayou Soto, who, in the context of her graduate studies, explored the process of defence of territory in the community of San José Tipceh. The methodology was semi-structured interviews that were applied to four actors actively involved in the process of territorial defence in San José Tipceh around the years 2019-2020. The description of the resistance movement included a section on the political participation of the women of San José Tipceh, from which a testimony was taken. This paper was published two years after the cancellation of Ticul A and B was announced.

However, the employment of secondary data for Qualitative Content Analysis also poses a lot of limitations as by being disseminated under specific circumstances and interests, its original context can not be fully reconstructed (Wästerfors et al., 2014, p. 475). As a result, secondary data may not be ideal for a better understanding of the original context of the political participation of agents in this socio-environmental conflict, especially when it also includes the

values and perceptions of the journalists or scholars who produced it - as in the case of Alarcón (2017), Gayou Soto (2014) and Mekaoui & Baños Ramírez (2021).

Social Positionality, ethics and empirical research

All knowledge is situated (Haraway, 1988), which means that it will always be value-laden. With this in mind, the purpose of the thesis is to bring to light the voices (often marginalised in formal institutions) of people whose lives are directly affected by "low-carbon transition" agendas, in order to contribute to a socially just environmental transition. However, this aim cannot be fully achieved through research of this nature, as in addition to the researcher's filter, the investigation encountered a number of obstacles to the empirical work.

The main obstacle of this nature (from a methodological and ethical point of view) was the lack of access to the community I was studying in order to carry out interviews or other techniques of data collection (more reliable for the voices of the people). From the beginning of this thesis, this objective was pursued, which is why I contacted a number of academics and organisations with some connection to the socio-environmental conflict and/or the inhabitants of San José Tipceh. While most of them did not respond, those who did told me that the community had various agreements with them and others to protect their confidentiality, and therefore they did not have the resources to assist me.

One of the responses mentioned explicitly the fear of the community against "academic extractivism". This term refers to the spoliation of "ideas (whether scientific or environmentalist) from indigenous communities, taking them out of the contexts in which they were produced in order to depoliticize them and re-signify them from Western-centric logic" (Grosfoguel, 2016). Academic extractivism usually has been the object of denunciation in recent times, mainly against universities and/or academics from the Global north who study dynamics located outside these latitudes. In this case, conducting fieldwork while building bonds of trust, mutual support and shared knowledge is fundamental, but in my very specific case this was not possible due to time and material constraints.

After a few months and receiving similar responses, I opted for the use of secondary data for this research. However, besides the methodological limitations of the use of this type of data, I acknowledge that it did not represent my own space for dialogue, which allowed me to direct the voices of the residents of San José Tipceh towards issues related to my research question that I would have liked to explore in more depth.

Chapter 1. Sexual division of labour, women's political participation and environmental politics and policy.

Introduction. The main aim of this chapter is to explore the relationship between the sexual division of labour, women's political participation in environmental issues and agendas. It begins by describing what the sexual division of labour is and how this structure has influenced the relationship between genders and between humans and nature. It then describes how women's political participation and the creation and implementation of environmental agendas have been embedded in these relationships. The chapter also seeks to highlight the ways in which FPE provides critical frameworks for analysing women's roles and agency in environmental issues, with a particular focus on intersectionality as an essential part of understanding identities and political agency.

1.1 Sexual division of labour and political participation of women in environmental matters

1.1.1 Capitalist sexual division of labour

Capitalism is sustained by the sexual division of labour. Over the last few decades, theorists such as Costa (1975), Vogel (1983), Federici (2004), and Salleh (1997) have argued that productive labour, that which produces surplus value, depends on reproductive labour, which is carried out mainly by women. By reproductive labour we refer to all the tasks that maintain the reproduction of human and non-human life on this earth.

Early notions of the sexual division of labour described the separation of unpaid domestic and reproductive work from paid work – the former carried out by women, the latter by men. However, the sexual division of labour has been theorised not only as a separation, but also as a gender hierarchy in which feminised work is devalued and made invisible. Silvia Federici, for example, notes that with the rise of capitalism (as opposed to subsistence economies), only market-oriented production is defined as a 'value-creating activity', while reproductive labour in this mode of production began to be considered 'valueless' (2004, pp. 74-75).

Later, in the field known as 'ecofeminism', the analysis of the sexual division of labour was extended to the field of human-nature relations. The pillar of the contributions on gendered labour and nature is perhaps the warning of theorists such as Salleh (1997) and Mies (2019) that in capitalist societies there is an association between women, or the feminine, and nature.

This association leads to a relationship of domination and exploitation: that of "humanity (man) over nature (woman)" (Mies, 2019, p. 104). A relationship in which women's participation in the production and reproduction of life is seen as a function of their own nature. Under this premise, the sexual division of labour is supported by a biological bias in which the work performed by men is seen as "human work" and the work performed by women is seen as a determination of their nature (Mies, 2019).

Echoing Maria Mies, Vandana Shiva (1989) argues that, for cultural and historical reasons, women (especially from the Third World) are primarily responsible for the tasks of sustainability due to their key role in the reproduction of nature. However, this work is considered 'unproductive' under capitalism, as the process of capital accumulation erodes the link between survival and productivity, giving way to a vision of productivity based solely on the production of commodities. By positioning women as those responsible for the reproduction of human beings and nature, and men as producers of commodities, the sexual division of labour, an essential condition for the reproduction of capitalism, turns into a means of devaluing and subordinating women and their labour.

According to Salleh (2009), this unpaid work of (re)production (of humans and nature) creates a "metabolic [unpaid] value", resulting in a triple debt of capitalism: to exploited labour, to reproductive labour and to exploited nature. Ecofeminisms have pointed to Cartesian binomials or dualisms such as: culture/nature, mind/body or production/reproduction as the dominant way of thinking that, together with science and technology, trigger this domination of man over nature and woman (Navarro Trujillo, 2022).

At the same time, feminist economics and ecofeminisms have highlighted the dependence of the productive sphere (or capitalism) on reproductive labour, as well as between human and non-human life. It should be noted, however, that these views are not rooted in essentialist links between women and their caring tasks, as they are based on the perspective of a position culturally and socially ascribed to women in the sexual division of labour. This position has also been explored in relation to women's political participation in environmental issues in fields such as feminist political ecology.

1.1.2. Political participation of women in environmental matters

In terms of political participation around environmental matters, the field of Feminist Political Ecology (FPE) has made the greatest contributions, with several authors examining gendered power relations in our relationship with nature. Three main themes have been discussed in FPE: "1) a vision of actually existing gendered ecologies permeated by power; 2) the movements and struggles that have grown up around them; and 3) the study of these ecologies, power relations, and emerging alternatives" (Rochelau & Nirmal, 2015, p. 796).

As it determines social differences, which shape the access and control over resources, FPE treats identities as a central subject when studying women's political participation around environmental matters (MacGregor, 2017). The production of these identities is seen as shaped by both material conditions and non-material practices, two dimensions that in turn shape each other. While the sexual division of labour can be seen as a material structure, social subjectivities, discourses and representations can be seen as part of these non-material practices (Fletcher, 2018).

With regard to the first of these two dimensions, emphasis has been placed on the direct links between women's position in the sexual division of labour and the motivations and demands embedded in their political participation. For example, in "Earthcare: women and the environment", Merchant (1996) explores the bridges between women's traditional roles as caregivers and their involvement in environmental activism and sustainable activities. She shows how women in different cultures have historically held the social position of primary caregivers within households and communities, which makes them more closely connected to nature (e.g. by ensuring food production or access to water) and thus more aware of environmental issues.

In a similar vein, but concerned with women from the global South, feminist theorists from the South have argued for calling these activities under names as "territorial feminisms", "communal feminisms" or "survival ecofeminism". Being the result of the link between environmental worries and historical anti-extractive struggles by, mainly, peasant and indigenous communities, these feminisms place the priority on the predatory practices of the capitalist-patriarchal project in specific territories (Lang et al. 2021, p. 10). In doing so, they have extended some of the themes of liberal feminisms and criticised others, in order to also pay attention to the defence of autonomy, bodies and territories (Svampa, 2015).

By unravelling the multiple relations of domination of land, territories and bodies, which shape their livelihoods, women immersed in these struggles challenge and redefine capitalism as the dominant model of production and its territorial dynamics (Lang et al. 2021, p. 10). In this process, they challenge the individualistic vision of modernity by accepting human-human and human-nature dependencies (eco-dependence and interdependence) (Herrero, 2013), a process that leads them to propose other ways of organising production, the reproduction of life and territories. At the heart of these proposals is the culture of care and the pro-communal ethos (Svampa, 2015).

Similarly, FPE explores how these material practices derive and simultaneously reproduce social gendered subjectivities (Elmhirst, 2011). The study of social subjectivities is important in FPE and political ecology because they are "shaped by and reflect differential access to and control over nature and experiences of disasters and climate change" (Resurección, 2017, p. 78). Specifically, subjectivities are relevant to the analysis of gendered social positions, identities and political participation in (at least) two ways: gendered emotions and gendered discourses.

Concerning the first one, contributions made in the field of FPE have highlighted the ways in which gendered emotions are inter-connected with resource struggles. After studying the access to clean water in a community in Bangladesh, Sultana (2011), for instance, finds that social relations of power, gendered subjectivities and emotions are in a process of mutual shaping in contexts of environmental conflicts. For the author, the gendered dimension of the emotions does not derive from essentialist links, but rather, they are constituted as a result of practices, specifically: "the result of spaces, places, bodies, and experiences" (p. 164). In this regard, the interests and motives behind natural resource management account for gender-based differences due to the "distinctive roles, responsibilities and knowledge" between men and women concerning natural resource management (Elmhirst, 2008, p. 5).

Second, gendered discourses are relevant to the analysis because they influence the dynamics within spaces of political participation and reinforce social norms and positions. In this regard, authors such as Elmhirst (2008) and MacGregor (2010) examine how policy responses to climate change create exclusions and opportunities by naturalising (and thus reproducing) power relations. One of the consequences of this framing is the neglect of feminised activities within the sexual division of labour (i.e. human and natural reproduction) in climate policy (Khoury, 2023), as well as the exclusion of indigenous peoples and women in decision-making

processes (Ulloa, 2012), as discussed in the next section (1.2. Discourses and representations: gender and racial exclusions in climate politics and policy).

1.1.2.1 Intersectionality, consubstantiality, race and ethnicity

It is worth noting that the analysis in FPE pays attention not only to gender, but also to other aspects of identity that shape power relations, such as class, race and ethnicity. The idea that identities are compound by multiple elements immersed in different structures of inequalities has its origin in what the African-American jurist Kimberlé Crenshaw (1991) coined as "intersectionality". This concept refers to "the critical insight that race, class, gender, sexuality, ethnicity, nation, ability, and age operate not as unitary, mutually exclusive entities, but as a reciprocally constructing phenomena that in turn shape complex social inequalities" (Hill Collins, 2015, p. 2).

The study of intersectionality has nurtured the analysis regarding women's political participation in environmental matters. However, the inclusion of this approach in FPE to study gender has not always been easy, as sometimes it has been interpreted as isolated identity categories of analysis, or fragmented and hierarchical social oppressions. In this regard, Kergoat (2012) proposed the term 'consubstantiality', which denotes how these aspects are consubstantial in social relations, which have a history and material representation that are often rendered invisible or reduced when looking at or privileging certain dimensions of identities.

In FPE, both the terms race and ethnicity have been used to designate social relations of hierarchisation and exclusion on the basis of the socially constructed conception of "otherness". While the first one centres on differentiations based principally on phenotypical traits (Mollet & Faria, 2013), the second has more to do with sharing cultural features (Barth, 1969). Both, however, converge in the identity of the subjects and can be studied inseparably. In this sense, following the scheme of Grieco (2018) these two terms are used interchangeably and the term 'racialisation' or 'racialised' is used to refer to the processes of subalternisation based on these categories and the individuals who are subject to them.

1.1.3 Debates around the sexual division of labour and women's political participation in environmental matters

In FPE, as well as in feminist economics and political science, the links between women's political participation and their position within the sexual division of labour are often contested. For some authors, such as MacGregor (2006), O'Shaughnessy and Krogman (2011), discourses that emphasise women's political role as anchored in their role in social reproduction risk naturalising and reproducing gender inequalities by reifying these differences as universal or natural.

On the other hand, materialist feminists and ecofeminists such as Merchant (1996), Van Plumwood (1993) or Federici (2013) argue that the caring role that women play within this hierarchical structure makes them key to resisting and challenging these relations of oppression and exploitation. This argument is based on the idea that the great emancipatory potential of these movements lies in the fact that they expose the artificial separation between two interdependent spheres: production and reproduction.

In this regard, from feminist militancy itself, as well as from the field of FPE, alternative notions of what is understood by 'political participation' have been put forward to include spheres of action that go beyond the notions of what is known as institutional or public. According to Fraser (1990), in the official spaces of political participation, the terms "private" and "public" function as "cultural classifications and rhetorical labels [...] often used to delegitimise some interests, views and issues and to valorise others" (p. 73). By being embedded in what is known as the "private sphere", reproductive labour has often been erased from official spaces of political participation.

Nonetheless, beyond these spaces, women have organised collectively at the gender-environment intersection to take action in multiple ways to address the vulnerability they face. An example of this is the resistance of women in latin america against extractivism, a model that pushes them to organise politically around care tasks. By procuring social reproduction in their territories, they (re)define their bonds with their community and with nature, at the same time that seek to make themselves visible through collective organisation and protest (Arriagada & Zambra, 2019a). These actions, built on top of something considered private, as reproductive labour, show new understandings of political participation and agency.

These manifestations, as well, take the notion of 'motivations' beyond methodological individualism by relying on collective agendas unified by experience. In this respect, it has been

shown how shared environmental experiences trigger women's collective politicisation processes (Arriagada & Zambra, 2019a; Sultana, 2011). As well, in ecofeminist practices, such as those of community ecofeminisms, women's demands have been articulated around the rights and emancipation of the community rather than of individuals (Paredes, 2010). However, far from being included in environmental and climate agendas, these movements and their demands, are distorted by global climate agendas to "include" indigenous women as targets or objects of interventions (Ulloa, 2012).

1.2. Discourses and representations: gender and ethnic exclusions in climate politics and policy

Although the existence of climate change (and its manifestations) are real, it is also shaped by social and cultural norms, as well as discourses that inform experiences and understandings (MacGregor, 2010). In this regard, it has been argued that the way climate change is interpreted, debated and contested is shaped by "the discursive and social constructions of hegemonic masculinities and femininities" (MacGregor, 2010, p. 228). As well as by a "climate eco-governmentality" and "geopolitics of knowledge" that articulate global strategies and powers that affect indigenous territories and autonomies, and erase them as subjects of knowledge and action (Ulloa, 2012).

Regarding the first, FPE has also analysed the discursive gender dimension of climate change agendas through a feminist constructivist analysis. The contributions in this area show that climate policy is not only dominated by male representatives, but is also based on discourses associated with the masculine (e.g. specialised science, technical and technological answers, mastery of nature). The codes underlying these discourses in turn prioritise methodologies, strategies and criteria that emphasise the productive sector (also associated with the masculine) (MacGregor, 2010; Fosado Centeno, 2020), erasing reproductive labour from the picture and relegating it to the 'private' sphere.

A stereotypically masculinist discourse that dominates climate change policy and sidelines women's participation is that of Ecological Modernisation (EM). By framing the climate change debate as a 'scientific, gender-neutral problem' that requires techno-scientific solutions (MacGregor, 2010, p. 224), this discourse renders gender as an irrelevant feature for studying or contesting climate change. Moreover, Ecomodern discourses are associated with a new shift in hegemonic masculinity, one that combines roles historically associated with the masculine

and feminine (e.g. violence and caring) to promote 'environmentalism' within the structures of 'business as usual'. (Hultman, 2013).

In this scenario, the discourse of Ecological Modernisation advocates lucrative 'win-win' technologies such as carbon sequestration and renewable energy in male-dominated environmental politics and policy. These proposals marginalise women's voices and the issues traditionally associated with them (e.g. environmental health, habitats and livelihoods) in favour of subjects whose knowledge is based on scientific or technical issues (MacGregor, 2010; Fosado Centeno, 2020).

However, it has also been noted that other climate change policies "include" women as typecast in roles that have been socially and culturally associated with the feminine. Resurrección (2017), for instance, argues that "women" are invoked in climate change politics as chief victims and caretakers, which makes them prompt to be treated as "labour constituency with assigned risk management and climate adaptation tasks" (Resurrección, 2017, p. 78). Under this discourse, women (specially from the global south) have been mobilised through climate change programs to meet the unpaid labour force required in conservation projects (see: Elmhirst and Resurrección, 2008; Gay-Antaki, 2016).

These exclusions and representations affect indigenous women in particular, as global climate change agendas omit and reproduce not only gendered relations of domination, but also those against indigenous peoples. For Ulloa (2012), the triad of modern science, climate and politics, represented in discourses (mostly from developed countries) and centred on economic growth and territorial control, continuously excludes indigenous peoples as subjects of knowledge and action. Similarly, Sultana (2022) uses the term 'climate coloniality' to refer to the various ways in which residual colonial power structures shape the impacts of climate change and responses to it (e.g. extraction and exploitation of natural resources, epistemic violence, and development interventions that reproduce the racialisation and 'othering' of populations in the global South).

What these contributions show is that the 'inclusion' of women in climate change policy not only reproduces social constructions of masculinity/femininity and ethnicity, but also has material consequences: the erasure and exploitation of the sexual division of labour, which in turn perpetuates gender hierarchies. In this regard, ambitious climate change agendas such as the European Green Deal (Khoury, 2023) and the Green New Deal (Cohn & Ducanson, 2023) have been criticised for failing to address reproductive (or care) work within their policies (e.g.

valuing care work, promoting policies that prioritise the maintenance and protection of people and nature).

It has also been studied how the lack of a gender perspective on these large-scale climate change agendas reinforces the patriarchal system of decision-making in local levels. In the case of forest management, for instance, Boyd (2002) argues that, besides being formulated in a male-dominated environment, this strategy renders women and their interests invisible by not recognising "the existence of gendered institutions, power structures and hierarchies" (p. 71). Besides their participatory exclusion, women often perceive and benefit (or lose) differently from climate mitigation and adaptation projects (Gay-Antaki, 2016).

Particularly when it comes to indigenous women, the essentialist link that is often conceived between them and 'mother nature' leads to their inclusion in climate policies as external programme targets or objects, in the role of 'passive victims' rather than as decision-makers (Ulloa, 2012). This resonates with other studies that show how indigenous peoples are represented in climate change discourses as either victims or 'harbingers', as they are conceived as having a special relationship with nature (Lindroth & Sinevaara-Niskanen, 2013; Roosvall & Tegelberg, 2013; Belfer et al., 2017), or in militant discourses as essentialist "rebel" or "resistant" because of their identity (Grieco, 2018).

This way, it can be argued that climate politics and policy are influenced and reproduce discourses and representations that keep men and women in two separated spheres: one of "highly valued science, economics and defence" and the other of "devalued social reproduction and private domestic duty" (MacGregor, 2010, p. 236). In climate coloniality, these agendas reproduce not only gender hierarchies but also ethical ones, by perpetuating neo-colonial relations. These discourses and representations are materialised in actions and programmes that have effects (but are also contested) at other levels.

Conclusion. This chapter has highlighted the interplay between the sexual division of labour, women's political participation in environmental issues and climate change agendas. It has shown how capitalism, and even its dependence on it, devalues and erases reproductive labour (which fuels gender hierarchies) from the public sphere by confining this space to what is considered the 'productive sector'. FPE has demonstrated how this structure persists in climate policy and politics (through direct practices, discourses and representations), a dynamic that impacts women's political agency in, at least, two ways: by the connections between women's

political agency and their socially assigned position in the sexual division of labour, and by their insertion into networks of social inequalities reproduced by these agendas.

In the latter respect, this chapter also underlines the importance of considering intersectionality in these discussions by describing how the construction of indigenous and rural women as political actors goes beyond the concerns derived from their position in the sexual division of labour, as it also intersects with hierarchical ethnic-racial relations. Finally, based on the experiences of these 'sub-altern' actors, the chapter shows how the understanding of political participation is broader than individual actions confined to the public sphere or official spaces.

Chapter 2. Green extractivism, socio-environmental conflicts and indigenous peoples

Introduction: The aim of this chapter is to build bridges between life reproduction and green extractivism, and to ground this discussion in the socio-environmental conflicts in the Yucatan Peninsula. The first section is a theoretical path from the notion of extractivism to green extractivism. It examines the concepts of extractivism, neo-extractivism and green extractivism in terms of their role in the World-economy, their socio-environmental consequences (specifically, for life reproduction) and the intra-country dynamics of "otherness" they generate. It also highlights how green extractivism leads to the creation of Green Sacrifice Zones and socio-environmental conflicts. The second section describes the context in which the case study is situated (the extractivism in the Yucatan Peninsula, Mexico), in the light of the concepts previously explored.

2.1 Extractivism and its derivations in Latin America, socio-environmental conflicts and the territorial turn

2.1.1 Extractivism

Since colonial times, Latin America has been a historically raw material exporter. In the context of economic globalisation, Latin American scholars coined the term "extractivism" in this region to describe this activity as an appropriation of natural resources by the global north in the process of capital valorisation, the structural dependencies it creates in the region and its socio-environmental impacts.

Gudynas (2018) defines "extractivism" as: "a kind of appropriation of natural resources in big quantities and/or big intensity, where half or more of them is exported as raw material without or with limited industrial processing" (p. 62). This definition makes it possible to distinguish between primary sector activities that are oriented towards self-consumption or the national market, and those that are embedded in the international market. This characteristic positions extractivism not as an isolated practice, but as a model of resource appropriation dependent on global markets.

Others, as Machado Aráoz (2013), have traced the trajectory of extractivism to assert that it is not a "stage" of capitalism, or a problem of certain economies, but a "structural feature of capitalism as a World-economy" that emerged as a "historical and geopolitical product of the

original differentiation-hierarchisation between colonial territories and imperial metropolises – the first thought as mere spaces of plunder for the provisioning of the later." (p. 131). Since its emergence, extractivism has been consolidating and transforming with the globalisation of capital, revealing the dependence of this process on the imperial-colonial division of the global market.

For Machado Aráoz, extractivism is at the very foundation and is a condition of capitalism as it is part of what Marx denotes as "social metabolism of capital". This concept is key to understanding the creation of value in Marxist theory, insofar as it is used to describe the multiple disruptions to the processes of life's reproduction that are necessary for the generation of capital. These disruptions, encompassed by the term *metabolic shift,* take different forms at different dimensions and scales – its material and territorial manifestation is the "expropriation of certain bodies-territories of their respective territories-livelihoods" (p. 132), a process analysed by Marx under the concept of primitive accumulation. Through this *metabolic shift,* capital subsumes the processes of sustaining and reproducing life into the dynamics of capital accumulation[5].

This perspective sheds light on the relationship between capitalism, colonialism and extractivism. On this line, and following on the analysis of surplus transfers, capitalism expansion and accumulation by dispossession of authors like Amin (1975) and Harvey (2004), Machado Aráoz asserts that the current extractivist regimes in Latin America remain a manifestation of the processes of structural expropriation and systemic dependency that emerge from (and reproduce) current neo-colonial relations.

From this structuralist perspective, authors such as Gudynas (2018) have argued that extractivism in Latin America is a continuous process that persists regardless of the type of government and political-ideological orientation of governments in the region. In this sense, since the early 2000s, variations of the term such as 'neo-extractivism' have emerged to describe the greater involvement of national states in extractive activities, under discourses of economic development and poverty reduction, within the framework of what Svampa (2015) refers to as the 'commodity consensus'.

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[5] Although this argument is in line with the statements made by feminist economists (described in chapter 1: capitalist sexual division of labour) about the subsumption of social reproduction labour under capitalism, the debate around extractivism has largely ignored the study of life reproduction from a feminist or gender perspective.

2.1.2 Commodities consensus, neo-extractivism and socio-environmental conflicts

The *commodity consensus* is a concept that describes the process of "reprimarisation" of Latin American economies in the international division of labour since 2000. This process, fuelled by rising international commodity prices and increasing demand in central and emerging economies, has involved greater state involvement in large-scale commodity export projects. In the raw materials consensus, the state acts in alliance with transnational corporations, legitimising their actions with the argument of state control of extractivist rents. (Svampa, 2015).

To render possible, neo-extractivism entails a territorial reconfiguration, as it tends towards land grabbing and intensive land occupation through monoculture or mono production activities (Svampa, 2019). This process, carried out under diverse ownership and access regimes by private, public, mixed corporations or cooperatives, implies a multi-dimensional transformation in the territories where extractive activities are located – from socio-environmental impacts (such as destruction of natural good and livelihoods) to socio-political reconfigurations (changes in public policies, corruption, reduction of the coverage of human and nature rights) (Gudynas, 2018).

For Svampa (2019) and Tapia (2016), neo-extractivism has meant a vertical (top-down) model of territorial appropriation and exploitation of common goods, supported by an economic and political-ideological order that creates new social asymmetries in the region. In response, several social resistances have emerged in Latin America, focusing on the defence of the commons, biodiversity and the environment, as well as on ancestral land struggles, in the case of those led by indigenous and peasant peoples.

Inasmuch as these conflicts are related to "the access and control of natural goods and the territory" (Svampa, 2019, p. 31), they can be qualified as "socio-environmental conflicts". Socio-environmental conflicts are defined as "mobilizations by local communities against particular economic activities whereby environmental impacts are a key element of their grievances" (Temper et al, 2015, p. 262). However, the claims in the context of socio-environmental conflicts do not reduce to the environmental matters *per se*, but they also expand into related domains, such as the participation in decision-making and the recognition of alternative worldviews (Temper et al, 2015).

In these conflicts, however, the different actors involved do not participate in symmetrical power positions and often do not represent a mechanism for debating the development strategies from which they derive. In fact, in Latin America, many countries have implemented "socio-environmental conflict resolution technologies" to neutralise the social actors who oppose the expropriation of resources by big economic interests. By promoting a purely technical "negotiated conflict resolution" (which leaves aside the discussion of antagonistic development projects) within the framework of a system of "governance", the countries of the region ensure the integration of their resource-exporting economies into the World-economy (Acselrad et al. 2010).

2.1.3 Indigenous peoples, women and the eco-territorial turn

Svampa (2019) recognises that one of the integral aspects of these socio-environmental conflicts arising as a result of neo-extractivism is the defence of territory (in its material and symbolic dimensions). The author designates this feature as the "eco-territorial turn" of struggles. Being rooted in the notion of territory as a "total social concept" that allows to analyse the social and political dynamics underlying territorial conflicts, the "eco-territorial turn" also refers to the consolidation of alternative "structures of meaning and schemes of interpretation" to the dominant territoriality (p. 45).

According to Tapia (2016), an example of the eco-territorial turn of struggles are the socio-environmental conflicts led by indigenous peoples, whose territories, along with their economic and cultural rights, are being dispossessed in the face of the advance of extractive policies[6]. The resistance of indigenous peoples has revealed the persistence and reproduction of "political and socio-cultural relations of strong historical and systematic exclusion, discrimination, subordination and domination" against them (p. 81). In this way, they have demonstrated the existence of "internal colonialism" in the relationship between the state, agents of capital and their communities within the framework of neo-extractivism.

Internal colonialism is a term coined by González Casanova (2006) to describe a "structure of social relations of domination and exploitation between heterogeneous cultural groups" (p. 97) within a nation-state. Looking at the reconfiguration of internal colonialism in the light of the

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[6] To the extent that ethnic boundaries are constantly changing as a result of social interaction (Barth, 1969), socio-environmental conflicts can be seen not only as a space where social categories such as ethnicity shape power relations, but also as social exchanges that reify and/or renegotiate such categories.

intensification of extractivism in Latin America, Tapia (2022) argues that the two are intertwined processes, as the former requires the subordination of subaltern subjects under a project of capitalist development. To this end, national states reproduce the components of internal colonialism: extractivism (as a constitutive moment), the external and patrimonial character of the state with hierarchical governments, and structural racism (p. 302).

Affected by the intersection of colonial-extractive and patriarchal violence, racialised women in Latin America have historically defended their territories. For them, maintaining control over their territories is key to their self-sufficiency and to their communities, as it includes the land that is the basis of their material existence (Cruz, 2020). In doing so, they have developed a 'politics linked to the defence of life' that recognises and values their reproductive labour at the community level (Cortés-Cortés & Zapata-Marcelo, 2022), but also challenges the capitalist way of organising the relationship between humans and nature (Herrero, 2013) (as mentioned earlier, in: 1.1 Sexual division of labour and women's political participation in environmental issues).

2.1.4 Green extractivism in Latin America and the "low-carbon transition"

Latin America's past and present as an extractive region, combined with the flourishing of multi-level policies for the "low-carbon transition", and the large quantities of strategic resource reserves for the energy transition found there, have also made it a target of what has recently been termed "green extractivism". This term has been used in activism and academia to denote and criticise the "extraction and capitalist appropriation of raw materials, natural resources (such as solar radiation or wind) and labour, especially in the global South, in order to bring about a green-technological energy transition" (Dietz, 2023, p. 57). This concept has also been used to point out that the socio-environmental impacts of extractivism, logics and actors who deploy it, are still present in these projects, even though they are justified and legitimised as necessary in the face of climate catastrophe (Verweijen & Dunlap 2021).

According to Andreucci et al. (2023) green extractivism can be considered as a form of *extractivism* to the extent that the current generation of "green" energy follows a "predatory logic of land and natural resources appropriation [that] (re)produces uneven geographical relations globally" (p. 3). This formulation is based on the concept *energy-extractive nexus*, which outlines how the so-called "low-carbon transition", by being a "capital-driven energy transition", leads to an expansion of the commodity frontier. Green extractivism follows the geographical dynamic of extractivism, which, being imbricated with colonialism (as revisited

above), "continues to insert indigenous and peasant territories and economies into complex global production networks and circuits of capital valorisation" (p. 3).

Although the term green extractivism has been used primarily to highlight the mineral intensity of the "low-carbon transition" (Bainton et al. 2021), it has also been used to describe the resource grabs justified by these policies in a broader context. Rivi Bruna (2021), for example, argues that to the extent that global climate policies are predominantly 'land-based'[7], they entail a territorial reconfiguration aimed at exploiting and extracting the natural resources needed for their agenda. Incorporated into the current international division of labour (where countries of the global South are suppliers of raw materials to meet global demand), the expansion of the commodity frontier promoted by green policies triggers a process of land grabbing in the global South to meet the demand for tangible and intangible resources (e.g. solar and wind energy) for the "low-carbon transition".

Rivi Bruna (2021) examines the internal dynamics of land grabbing in Mozambique, arguing that in extractive zones, some states become hostages to international agendas and financial institutions and their recent environmental goals. In this way, states facilitate the expropriation of resources from poor rural populations within their territories to serve the interests of the capitalist classes. These unequal exchanges are part of the framework of extractivism, as this geographical separation of segments of production (extraction, transformation, use and profit) is part of the "exploitation and appropriation of nature as an intrinsic part of the capitalist mode of production in an ever-growing globalised world economy" (p. 221). Like other forms of extractivism, the author argues, green extractivism affects rural livelihoods by expropriating assets necessary for their social reproduction. Thus, these dynamics may be seen as part of the metabolic shift described in Chapter 2.

2.1.5 Green Sacrifice Zones

In this respect, empirical research shows that the "victims of low-carbon transitions" are often minority groups, such as indigenous communities or ethnic minorities (Sovacool, 2021). In times of climate change, outrage against them is justified by multi-level authorities under environmentalist or developmentist discourses that present their territories as 'underdeveloped'

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[7] Such as tree plantations, Climate-smart agriculture, or large-scale infrastructures projects of renewable energy (e.g. wind or solar)

or 'poor and empty' (Ulloa, 2012; Composto y Navarro, 2014). In this way, their territories become what has recently been called 'Green Sacrifice Zones'.

In Political Ecology, the term *Green Sacrifice Zones* emerged to designate the territories that are or will be affected by the production dynamics of any technology driving a "low-carbon transition". These zones "bear the social, environmental, health, and economic costs of decarbonizing economies […]" (Zofragos & Robbins, 2020). The concept also emphasises the spatial injustices created by large-scale renewable energy and related projects, which follow an extractivist and colonial logic (by being embedded in the dominant social relations of production). These segregations are perpetuated by the neo-colonial relations of 'othering' and 'exclusion' within the governance of climate change (e.g. the justification of violence against certain populations in order to promote the life or development of others). (Andreucci & Zofragos, 2021).

Just as in the case of "traditional" extractivism, green extractivism in America Latina has been contested by indigenous and African-American peoples, organised women, communities and citizenships, as well as ecological movements. In these socio-environmental conflicts, protest are made against the authoritarian imposition of economic projects and its social-environmental externalisation to those zones in the Global South – some of these been: displacement and forced resettlement, pollution and lost of subsistence means, as well as modifications in the rights and access over natural resources (Dietz, 2023).

2.2 Context

2.2.1 Energy transition and green extractivism in Mexico

Despite the current Mexican government's (from 2018 to 2024, with Andres Manuel López Obrados as president) prioritisation of fossil fuel energy production, the last decade has seen a surge in foreign investment in large-scale renewable energy projects in the country. This surge has meant the further integration of the national energy market and some territories into the global energy market, with varying impacts on local communities, especially indigenous peoples.

Two pivotal regulatory modifications can be considered the background of the implementation of such projects: the Energy Reform of 2013 (or *Reforma Energética* in Spanish) and the Energy Transition Law of 2015 (or *Ley de Transición Energética* in Spanish). All of these changes took place during the presidency of President Enrique Peña Nieto (2012-2018), who presided over a

government that from the outset maintained an environmentalist discourse that helped Mexico gain international prestige as a climate leader. (Bizberg, 2020).

In 2013, the Mexican Congress approved a series of amendments to the Mexican Constitution to open up the country's energy market to private developers - which had been controlled by Pemex and the Federal Electricity Commission (CFE by its acronym in Spanish), the two state-owned energy companies. This series of reforms (known as the Energy Reform) opened up the possibility of private participation in the transport, storage and distribution of fossil fuels, as well as in the generation and marketing of electricity. The wholesale electricity market was also created as a result of the energy reform. It buys and sells all the products needed to operate the national electricity system, as well as clean energy certificates. Through this market, Mexico's Federal Electricity Commission began holding long-term auctions for private companies to become its suppliers (Centro Nacional de Control de Energía, 2018).

The energy reform was followed a year later by two secondary laws: the Hydrocarbons Law (*Ley de Hidrocarburos*) and the Electricity Law (*Ley de la Industria Eléctrica*). With the aim of promoting the production of hydrocarbons and electricity in Mexico, these two laws gave priority to activities related to this purpose over other activities requiring land use. In particular, the Electricity Law granted energy companies the right to occupy privately owned land. Although it established the right of landowners to refuse to rent or sell their land, it also created legal mechanisms for energy companies to force negotiations, such as the right to mediation and legal easements. (Ley de Hidrocarburos, 2014; Ley de la Industria Eléctrica, 2014).

Two years later, Mexico approved the Energy Transition Law, a reform aimed at promoting and regulating the generation of 'clean energy' and reducing pollutant emissions from the electricity industry (with a target of 35% 'clean energy' by 2024) (Ley de Transición Energética, 2015). In line with this objective and its international commitments, the government also submitted an Intended Nationally Determined Contribution, in which it committed to reducing GHG emissions by 22% by 2030 and to meeting the global target of 1.5°C by the end of the century. This document was submitted as part of the Paris Agreement and was intended to 'feed into' the agreement to be adopted at COP 21 (Intended Nationally Determined Contribution, 2015).

2.2.2 Reforms, Ejidos and Indigenous rights

The reforms concerning the actors and conditions of energy production, as well as the promotion of environmental goals and the transition to "clean" energies, have opened a window for private investors in the field of renewable energy production in Mexico. These measures can be seen as the continuation of a pattern of integration (and subordination) of Mexico in the structures of neoliberal globalisation, driven by transnational corporations (who are the main beneficiaries) and implemented by state institutions that perpetuate the dependencies of the country's productive structures in the global market (Vargas Suárez, 2015).

One of the main impacts of these reforms has been the subordination of the territory to the energy market and the associated changes in land tenure. As a result, new areas of the country are being targeted by energy companies or the state for the development of renewable energy projects - a process of land privatisation in rural Mexico. Some of these areas are *ejidos*, a form of communal property recognised by the Mexican constitution and often owned by indigenous peoples.

By targeting indigenous territories, this set of reforms and their effects have affected the rights of indigenous communities by providing a legal basis for the prioritisation of private interests over others in energy matters. In doing so, the reforms have violated the rights of indigenous peoples recognised in the Mexican Constitution and guaranteed by international law, such as the right to free use of their lands, territories and resources, and the right to free, prior and informed consultation (Ancheita & Wiesner, 2015). The latter is recognised in ILO Convention No. 169 (ILO, n.d.), which states that indigenous peoples must be consulted 'in good faith and in a form appropriate to the circumstances' on all measures taken by the government that directly affect them.

Socio-environmental conflicts in some of these territories have arisen or leveraged as a consequence of the increasing number of renewable energies projects in Mexico.[8] Two of the cornerstones of these struggles is the defence of commons against "land dispossession" and denunciations of "neo-colonialism". In this sense, they can be seen as a continuation of an historical resistance by local communities against their subjugation to the state and corporations and, more broadly, to the expansion of the extractive frontier and its modification in the human-nature relationship (Ávila-Calero, 2017).

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[8] See: Ávila-Calero, S. (2017) and Tornel et al. (2023)

2.1.3 Green extractivism in the Yucatan Peninsula, Mexico

Due to its geographical location, the Yucatan Peninsula was identified in the 2000s by the Mexican authorities as an area with potential for the development of renewable energy infrastructure (especially solar and wind) (see Map 1). With the implementation of the 2015 Energy Transition Law (Ley de Transición Energética in Spanish), several projects of this type were awarded in this federal entity (9 out of 16 of the first long-term energy auctions in 2016) (Tornel, 2023). These projects were awarded to private companies, mainly with foreign capital, in a context of the promotion of foreign investment under a governmental discourse of economic development of Yucatan (Gayou Soto, 2024).

Yucatan is an entity located in the southeast of Mexico, a region that is home to a large proportion of Mexico's indigenous population (68%)[9] and vast natural resources (Cámara Pérez, 2023). At the same time, it accounts for the lowest income levels of the country. In the collective Mexican imagination, the southeast is positioned as a region with a vast diversity of culture and natural resources, but "economically underdeveloped" compared to the rest of the country.

Map 1: Geographical Location of the Yucatan Peninsula

Source: Google Maps

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[9] As informed by INEGI (*Instituto Nacional de Estadística y Geografía*), the autonomous institution in charge of collecting and systematising socio-demographic data in Mexico. In its censuses, INEGI makes use of self-identification to use the classification of 'indigenous'.

According to Bonfil Batalla (1987), as a result of the conquest, two visions of national identity converged in the southeast of Mexico: the first, a vision rooted in indigenous cultures and pre-Columbian traditions, and the second, a vision of national development based on Western values and the inherited European way of life. To this extent, the region has been subjected in recent decades to various developmentalist proposals that seek to advance the region economically in order to 'integrate' it with the rest of the country, while leaving behind indigenous populations. This is illustrated, for example, by the growth of the tourism industry, which has turned indigenous peoples into subjects of the interests of this market. (Ansótegi, 2021; Cañas Cuevas, 2016).

These proposals have implied a necessary political, territorial and cultural (re)configuration in the region (Ansótegi, 2021). In Yucatán, this (re)configuration is nowadays depicted in the deployment of renewable energy infrastructure (Tornel et al. 2023) (among other lucrative projects such as pig and poultry mega-farms; the promotion of soy monoculture; high-impact tourism and the so-called "Mayan Train") (Gayou, 2024).

Due to their large scale, for most of these renewable energy projects (solar and wind), the territory and lands of the company, a large part of which are *ejido* lands, are a fundamental resource to be controlled (Llanes, 2019). In order to appropriate *ejido* lands, companies have exploited the economic imbalances between them and the indigenous population. Through formal and informal intermediaries, and under the discourse of "shared social benefits" (also reproduced by the state government), companies use manipulation and coercion to achieve usufruct of the land (Reyes Maturano, 2022). As well, the deployment of these megaprojects entails violations of procedural justice, as indigenous peoples have been excluded from decision-making processes regarding the use of their lands (Barragán Contreras, 2021).

In the indigenous and peasant populations, whose land is being expropriated for use in the megaprojects, a variety of attitudes and interests have emerged in relation to these (Barragán Contreras, 2021). However, some of them have organised to denounce the violence against them in the context of the expansion of infrastructure construction for renewable energy generation and to defend their lands from it. In doing so, they denounce these megaprojects for their various socio-environmental and cultural repercussions in their territories. Some of these are: division and conflicts amongst local communities, the loss of subsistence means, immigration, insecurity and increased violence, land dispossession and big-scale deforestation, loss of customs and traditions, as well as of the Mayan language (Uc Be, 2018; Uc Be, 2021;

Gayou Soto, 2024). Although many of these are directly related to life reproduction, no literature or evidence was found regarding the gendered dimension of these impacts.

Several socio-environmental conflicts have emerged in the Yucatan Peninsula in response to the renewable energy megaprojects promoted by the 2015 Energy Transition Law. In these conflicts, the organised communities (accompanied by networks of different actors) have positioned themselves as defenders of the territory, and as indigenous peoples (Llanes, 2019). While some of these struggles have resulted in the temporary or permanent suspension of infrastructure projects, others are still ongoing.

Conclusion. This chapter has highlighted the links between extractivism, life reproduction, "low-carbon transition" agendas and territorial dynamics grounded in colonial legacies. The analysis has shown how green extractivism, promoted by these agendas, can be seen as a continuation of extractivism, a fundamental aspect of the World-economy that is deeply rooted in the historical and geopolitical structures of colonialism and that has repercussions in the cycles of life reproduction in the territories it is deployed.

Furthermore, the chapter has shown how extractivism and green extractivism translates into top-down territorial (i.e. land dispossession) dynamics within countries (internal colonialism) based on race-ethical segregations, which are contested by demands for autonomy and self-determination. It also demonstrated how the resistance of racialized women against extractivism has drawn links between the defence of their territories and the preservation of the material conditions for their reproduction and that of their communities. In Mexico, all these dynamics are represented in the processes (promoted by agendas such as the Energy Reform and the Energy Transition Law) of territorial reconfiguration in regions such as the Yucatan Peninsula.

Chapter 3. Study Case

Introduction. The aim of this chapter is to develop the case study. First, it describes the main characteristics of the socio-environmental conflict that arose in the Yucatan Peninsula as a result of the Ticul A and B megaprojects. This part provides a general overview of the conflict, as well as the main events of political resistance and other considerations for understanding the political participation of women (and general motivations) to oppose the project. Finally, it describes the overall results and main findings obtained from the analysis of the testimonies of the participants, as described in the Methodology section and a discussion section where these findings with the literature previously presented.

3.1 Photovoltaic parks Ticul A and B

3.1.1 Overview

Two of these renewable energy megaprojects were the photovoltaic parks "Ticul A" and "Ticul B", whose construction began in 2016 but was permanently halted in 2023 due to the resistance of the affected neighbouring communities. The project entailed clearing 604 hectares of jungle in the Yucatan Peninsula to accommodate approximately 1.2 million solar panels and was slated to be executed by the US transnational companies Vega Solar 1 and 2, subsidiaries of SunPower (EJAtlas, 2022).

These parks were planned to be situated in the municipalities of Muna, Sacalum, and Ticul in Yucatán, only 200 metres from the locality of San José Tipceh (see map 1 and 2), a locality inhabited by 606 people where almost 40% of the population speaks an indigenous language (Mayan). Its perimeter is home to the *ejido* of San José Tibceh, which has around 1 517 hectares in common use and 102 *ejidatarios*. Its main economic activity is the cultivation or harvesting of agricultural products (Mekaoui & Baños Ramírez, 2021; INEGI, n.d.). In this area, the harvest of Mayan milpa, traditional beekeeping, vegetable production, as well as the traditional management and exploitation of the jungle prevail (EJAtlas, 2022).

While the local impacts of these projects were overlooked and disregarded, the project was promoted by federal and state authorities as a means to combat the climate crisis by reducing greenhouse gas emissions. Some of the potential socio-environmental impact of the photovoltaic parks are: temperature increase, biodiversity loss, food insecurity, loss of landscape, deforestation (and loss of forest carbon sequestration capacity), loss of vegetation

(e.g. milpa and forest resources for charcoal and timber production), reduced ecological and hydrological connectivity, air and noise pollution, increase in corruption, land dispossession and loss of traditional knowledge and practices (Ejatlas, 2022; Balam, 2023).

Source: Geocomunes (http://132.248.26.105/catalogue/#/dataset/59)
(Scale 1:72224)

3.1.2 Chronology

According to Tornel et al. (2023), the key events in the development of the socio-environmental conflict around Ticul A and B are as follows:

❖ Social tensions began in February 2016 when the new *ejido* commissioner[10] obtained the permission of the *ejidatarios* to lease the land for the harvest of fruit trees (citrus) to a particular acting as an intermediate of the company (a private owner of some land adjacent to the *ejido*)[11]. When the *ejidatarios* obtained more information about the

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[10] The Municipal Authority in San José Tipceh is the Municipal Commissioner, however, the *ejidal* commissioner is the political authority of the *ejido*. Usually, the person holding this title is elected by an assembly of *ejidatarios* and their main functions are the representation of the *ejidal* population and the administrattion of the common goods (Ley Agraria, 1992).

[11] Under the Mexican constitution and after a reform made in 1992 (art. 27), *ejidatarios* hold formal title to their land which enables them to lease or sell their plots if a majority of members of the ejido agree.

negotiation, they expressed their concerns regarding its limitations and benefits for them. In the face of this disagreement, the commissioner undertook a campaign of lies and coercion for the *ejidatarios* to agree on the purchase and sale of land, as denounced by the latter.[12]

❖ Two months later, in April 2016, the *ejidatarios* realised there were machines for infrastructure building in the area previously sold. After investigating, the *ejidatarios* knew the land was going to be used for the installation of more than a million solar panels. This situation triggered the social tensions since a group of *ejidatarios*, on the grounds that the ''cession'' of the land violated the applicable legislation, decided to oppose the project, while the rest decided not to object. The group of opponents appealed to the support of local and regional organisations to request to the authorities a public information meeting on the project. This request was also supported by representatives of academia and civil society in Yucatán.

❖ This situation resulted in a reunion between members of the community, *ejidatarios*, civil society, federal and local government authorities, as well as representatives of the development company, where the *ejidatarios* requested to make modifications to the original contract. However, after holding a series of negotiations with the company, the *ejidatarios* did not reach a consensus (some of them had already accepted money from the proposal, which further difficultated the process).

❖ The opponent *ejidatarios*, together with community members, with the support of a network of activists and academics, managed to file a complaint with the Inter-American Commission on Human Rights, which forced the Mexican government to get involved in the discrepancies. As a result the federal government recognised the need to carry out an indigenous consultation to guarantee consent and approval of the project.

❖ These consultations, mandated by the law as described above, were carried out by the Energy Secretariat (SENER by its acronym in Spanish) and the objective was to "reach agreements and obtain free, prior, and informed consent from the indigenous Mayan community of San José Tipceh for the construction and operation of the project" (SENER, 2017, p. 4). However, these consultations did not comply with the procedures (being prior) as the environmental authorisations for the projects had already been

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[12] Ejidatarios denounced that the *ejido* commissioner faked an assistance list of two assemblies where the sale of the land was agreed, as well, they denounced threats and pressure from the commissioner to accept the concession.

granted by the Ministry of Environment and Natural Resources (SEMARNAT by its acronym in Spanish).

❖ During the consultation process, the community, and not only the *ejidatarios* had the possibility to know more about the characteristics of the projects through informative meetings. However, the company representatives kept presenting biassed and incomplete information about their socio-environmental impacts, a situation that increased the discrepancies within *ejidatarios* and locals (which led to physical violence at one of the *ejidal* meetings in September 2018).

❖ In November 2018, the final assembly of the consultation process (where the final decision was supposed to be taken) was carried out and in it, the consent of the community was obtained by SENER and the company.

❖ A part of the opponents community members and *ejidatarios* decided to keep the resistance until June 2022, when, after presenting an amparo, the Collegiate Court of Yucatan (a body of the federal judiciary in Mexico) decided to suspend the project definitively. The argument given by the Court was that the past resolutions had not had a proper legal procedure by the involved instances.

3.1.3 Socio-environmental conflict and background of women's political participation

As can be seen in the development of the events, the socio-environmental conflict around Ticul A and B in the Yucatan Peninsula involved several actors and interests. To contextualise the political participation of women against these projects, the following factors need to be taken into account.

The indigenous consultations served as a platform for the positioning of the interests of the entire community in the decision-making process, among them, women. In Mexico, only 25% of people holding an ejidatario title are women (INEGI, 2022, p. 10), a situation that has excluded them from participation regarding the communal lands (Gay-Antaki, 2016). In the case of women from San José Tipceh, the consultation process enabled them (*ejidatarias* and non-*ejidatarias*) to express their interests and have a formal participation regarding the megaproject (Llanes, 2019; El Mekaoui & Baños Ramírez, 2021).

However, there was not a differentiated group of women land defenders during the conflict. Although in one of the assemblies organised by Mayan land defenders, one of the woman involved in the resistance mentioned that as women and community members, they formed a

committee at the beginning of the tensions, which was later dissolved (Asamblea de Defensores del Territorio Maya, 2018, p. 16).

This inclusion of positions and political actors in the scene enabled by the indigenous consultation also reduced the possibility that discussions would be limited to economic benefits derived from land use (usually involving mostly male actors). This success broadened the negotiations beyond a purchase and sale contract between *ejidatarios* and company representatives (all of them male, as it was observed during the data collection).

As well, the indigenous consultations served as a means for the fulfilment and vindication of indigenous rights (Maya in particular). In this sense, appealing to the rights derived from indigenous identity as a community became a crucial element in the resistance to megaprojects. According to Llanes (2019), this process is resulting in important cultural changes for Mayan actors and an incipient reconfiguration of power relations around the land (between *ejidatarios* and non-*ejidatarios* but also between communities, companies and governments). In this context, some leaders of the resistance opted to form a committee and align themselves with an organisation of Mayan land defenders in the Yucatan Peninsula (Asamblea de Defensores del Territorio Maya Múuch' Xíinbal), whose objective is to defend the land of mayan communities of dispossession by governments and capitalist enterprises (Asamblea Maya, 2023).

On the other hand, the escalation of the conflict, as well as the various networks that were formed between the actors involved in the conflict, allowed political actors to communicate their positions through different forums and media, such as community assemblies, local or international forums, news, documentaries and academic articles. In these, both *ejidatarios* and non-*ejidatarios* expressed their arguments against the Ticul A and B megaproject. Although this feature seemed to trigger the visibility of women (there was considerable female participation in these spaces), they were dominated by male voices.

In addition, it is important to mention that one of the central arguments in the defence against the project was the flaws and inconsistencies in the legal procedures. The community, with the help of other actors such as activist groups and academia, focused on defending their rights in the agrarian sphere, access to information (on the ecological and social impacts of the megaproject), and human rights (especially as an indigenous community). In this sense, the cornerstone of the ruling rested upon the three primary criticisms of the community: the absence

of prior indigenous consultation,[13] failure to comply with requirements for mitigating the social and environmental impacts of the project,[14] and inadequate legal and juridical treatment of the members of San José Tipceh as an indigenous community. Furthermore, following the arguments of the complainants, the court emphasised the profound disruption to the community's worldview posed by the infrastructure projects (Tornel, et al., 2023).

3.2 Political motivations of San José Tipceh inhabitants to oppose Ticul A and B – Results

After conducting a qualitative inductive analysis of the testimonies of the inhabitants of San José Tipceh on their participation in the socio-environmental conflict against Ticul A and B (see methodology section), it was found that the motivations that led them to participate in the conflict are very varied, as they can be classified as follows: Rejection of manipulation, imposition and threats, Community benefits, solidarity and justice, Rejection of violence and confrontation, Defence of community rights, dignity and autonomy, Defence of livelihoods and impact on daily life, Care of children and future generations, Defence of natural resources and socio-environmental wellbeing, Criticism of institutions and authorities, Economic gains and Defence of community modes of production (*ejidos*).

Despite their variety, some of these motivations are of greater importance to the inhabitants, as they were explicitly or implicitly mentioned to a greater extent in the testimonies analysed. This is the case of Rejection of manipulation, imposition and threats, Community benefits, solidarity and justice, Rejection of violence and confrontation, Defense of community rights, dignity and autonomy, which concentrated 71% of the allegations, as shown in figure 1.

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[13] The Office in Mexico of the United Nations High Commissioner for Human Rights (UN-HCHR) issued observations and recommendations on the lack of compliance with the prior, free, informed, good faith and culturally appropriate nature of consultations with indigenous peoples carried out by Mexican authorities (CEMDA, 2019)

[14] While the company hided the information about the possible negative impacts of the megaproject during the consultation process (Tornel, 2023), the environmental authorisations issued by SEMARNAT did not included socio-environmental parameters nor effective measures to control the negative impacts of the project by prioritising financial and technical criteria (Heinrinch Böll Stiftung, 2018).

Figure 1. Political Motivations of San José Tipceh inhabitants against Ticul A and B (total)
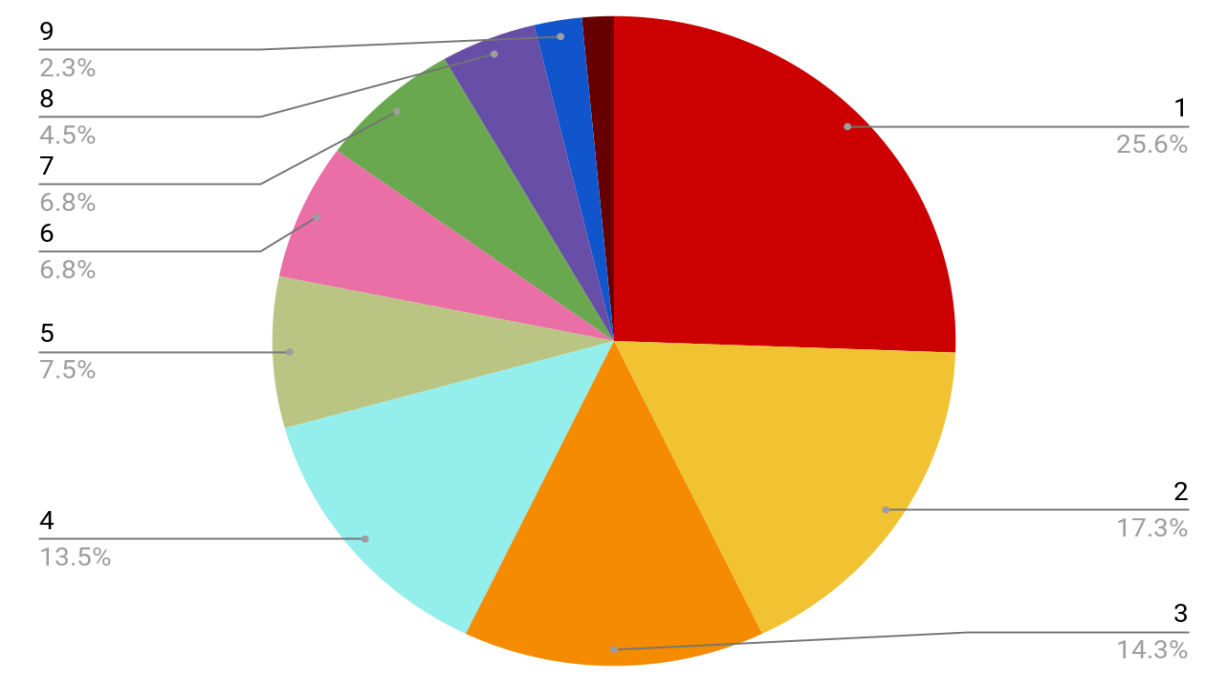
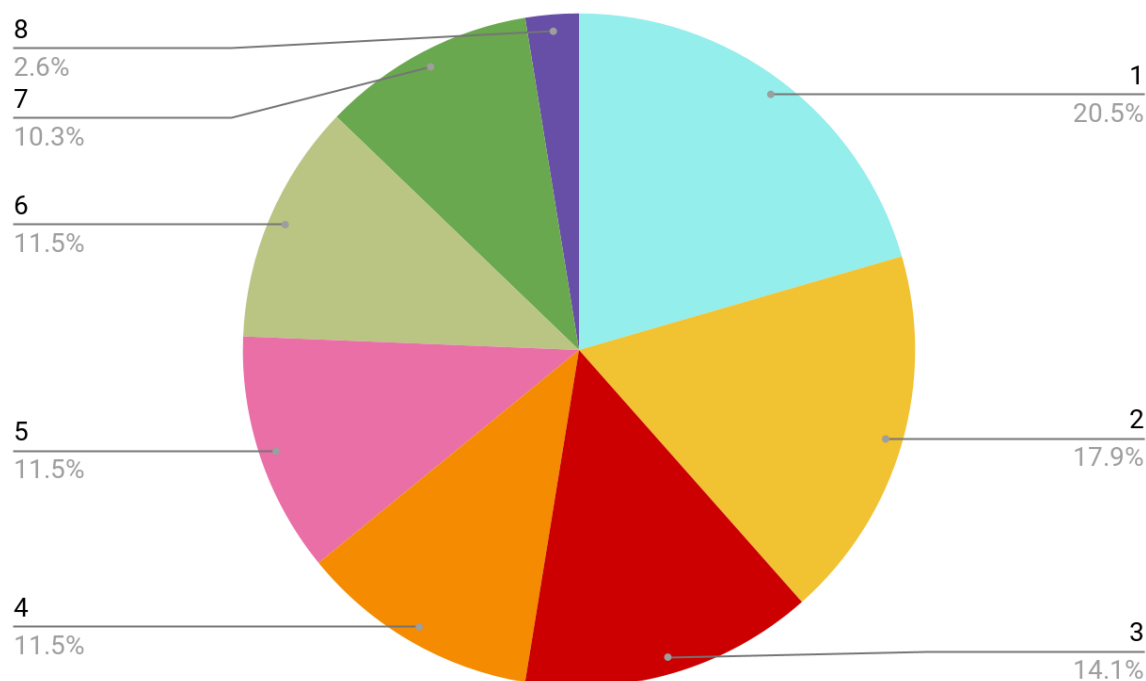| 1	Rejection of manipulation, imposition and threats	6	Care of children and future generations
2	Community benefits, solidarity and justice	7	Defence of natural resources and socio-environmental wellbeing
3	Rejection of violence and confrontation	8	Criticism of institutions and authorities
4	Defence of community rights, dignity and autonomy	9	Economic gains
5	Defence of livelihoods and impact on daily life	10	Defence of community modes of production (*ejidos*)

Source: Own elaboration

Although in the resistance against the photovoltaic parks "Ticul A" and "Ticul B", members of the community of San José Tipceh gathered together in a single front with no gender backgrounding, some paths can be drawn between the type of concerns and this category. As shown in figures 2 and 3, by disaggregating the testimonies by gender, it can be found how men and women pay more or less attention to the different motivations found in all the testimonies.

Initially, it is noticeable that the allegations made by men are more concentrated in a few categories (Rejection of manipulation, imposition and threats, Rejection of violence and confrontation, Community benefits, solidarity and justice). Meanwhile, those made by women are more varied, paying a similar attention to seven of them (Defence of community rights, dignity and autonomy, Community benefits, solidarity and justice, Rejection of manipulation,

imposition and threats, Rejection of violence and confrontation, Care of children and future generations, Defence of livelihoods and impact on daily life and Defence of natural resources and socio-environmental wellbeing).

Figure 2. Political Motivations of San José Tipceh inhabitants against Ticul A and B (Women)

1	Defence of community rights, dignity and autonomy	6	Defence of livelihoods and impact on daily life
2	Community benefits, solidarity and justice	7	Defence of natural resources and socio-environmental wellbeing
3	Rejection of manipulation, imposition and threats	8	Criticism of institutions and authorities
4	Rejection of violence and confrontation	9	Economic gains (0%)
5	Care of children and future generations	10	Defence of community modes of production (*ejidos*) (0%)

Source: Own elaboration

Figure 3. Political Motivations of San José Tipceh inhabitants against Ticul A and B (Men)
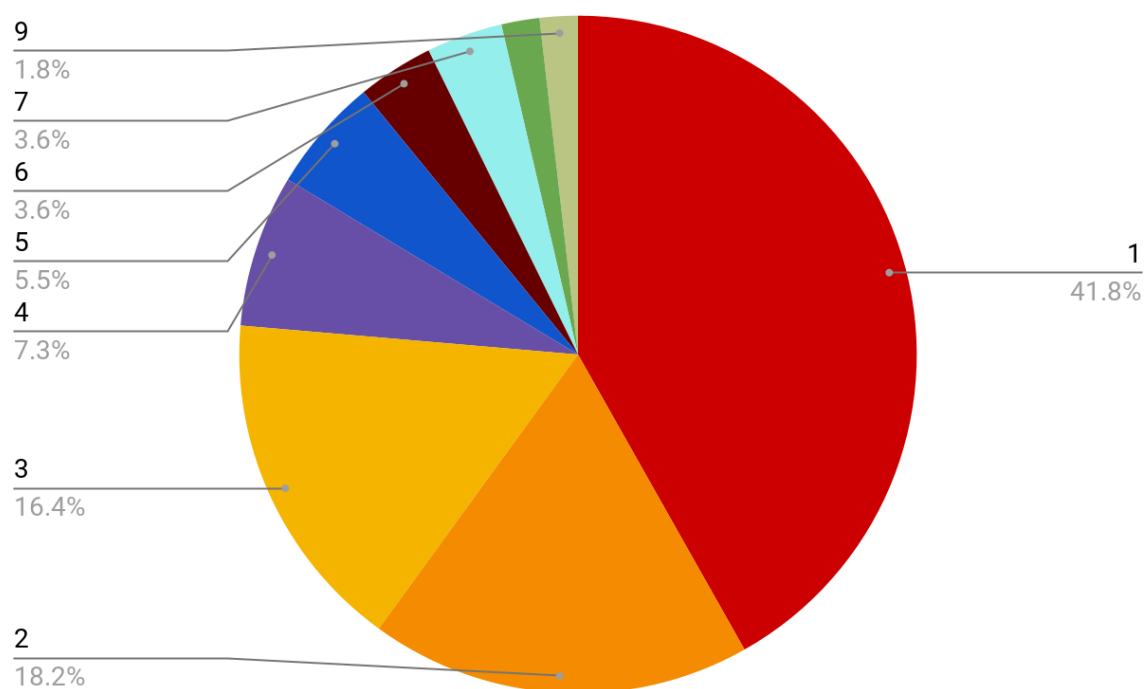
|			
1	Rejection of manipulation, imposition and threats	6	Defence of community modes of production (*ejidos*)
2	Rejection of violence and confrontation	7	Defence of community rights, dignity and autonomy
3	Community benefits, solidarity and justice	8	Defence of natural resources and socio-environmental wellbeing
4	Criticism of institutions and authorities	9	Defence of livelihoods and impact on daily life
5	Economic gains	10	Care of children and future generations (0%)

Source: Own elaboration

Besides having a greater variety of motivations to participate politically in the socio-environmental conflict, what the figures also show is that, in this case, women paid more attention to the socio-environmental impacts of the projects Ticul A and B (by appealing to arguments that fall into categories such as Care of children and future generations, Defence of livelihoods and impact on daily life and Defence of natural resources and socio-environmental wellbeing). Men, on the other hand, showed a greater concern by procedural features of the negotiations and the violence and coercion around them (as a lot of their allegations can be classified in the categories Rejection of manipulation, imposition and threats, Rejection of violence and confrontation). However, both groups appealed in a similar measure to the costs

and benefits of the projects for the community and to the sense of justice (Community benefits, solidarity and justice).

The following figures (from 4 to 9) show those classifications where a bigger difference can be found in the coding process disaggregated by gender. These are: Defence of community rights, dignity and autonomy, Rejection of manipulation, imposition and threats, Care of children and future generations, Defence of livelihoods and impact on daily life and Defence of natural resources and socio-environmental wellbeing.
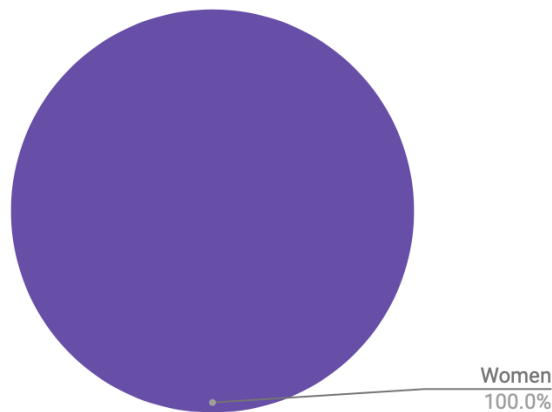
Figure 4. Defence of community rights, dignity and autonomy (disaggregated by gender)

Men
15.1%

Women
84.9%
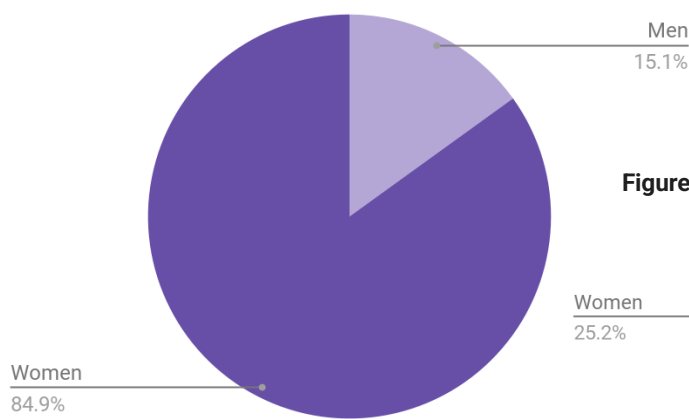
Figure 5. Rejection of manipulation, imposition and threats (disaggregated by gender)
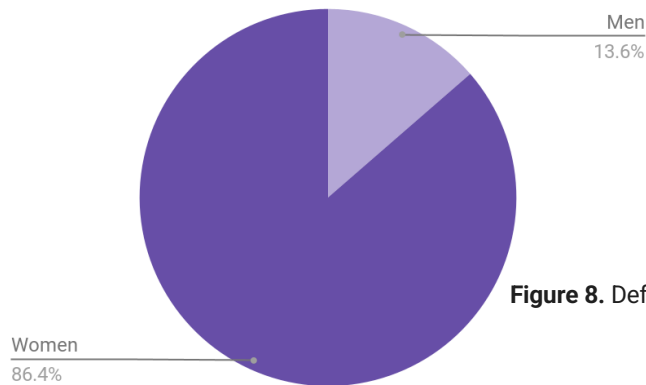

Women
25.2%

Men
74.8%
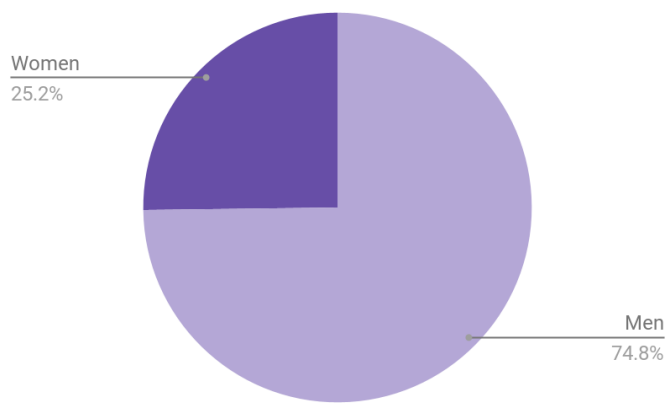
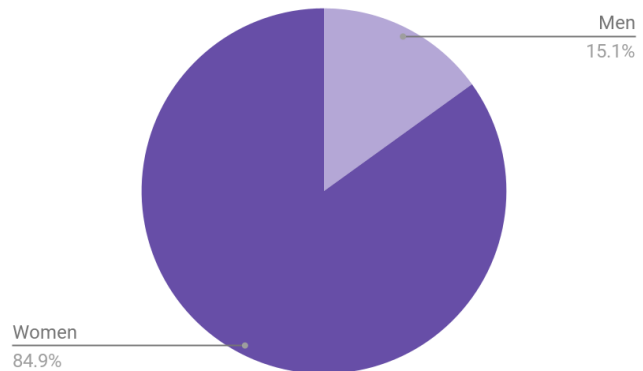**Figure 6.** Care of children and future generations (disaggregated by gender)

Women
100.0%

Source: own elaboration

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Figure 7. Defence of livelihoods and impact on daily life
(disaggregated by gender)

Men
13.6%

Women
86.4%

Figure 8. Defence of natural resources and socio-environmental
wellbeing (disaggregated by gender)

Men
15.1%

Women
84.9%

Source: own elaboration

What these figures show is that while the men appear to be focused on rejecting the coercive measures used during the conflict to control the inhabitants of San José Tipceh, the women are the ones who are mainly raising concerns related to reproductive labour (the reproduction of human life and not human life, as defined above). In particular, they showed great concern for the quality of life of their sons and daughters. In this regard, some of the testimonies show how the negative environmental impacts of the solar park concern them because of its effects on their children's lives, as illustrated in the following quotes:

> "What will we leave to our children and grandchildren? They will blame us, if they suffer in the future, it will be our fault as mothers."
>
> - Testimony (women) (Asamblea Maya, 2018, p. 17)

> "We already enjoy free air, without pollution, but what about those who are growing up? those who are growing up, how are they going to be?."
>
> - Testimony (women) (Alarcón, 2017)

"Since I found out that it's for solar panels [the use of the land], it's going to harm me too, and my daughters too."

- Testimony (women) (Alarcón, 2017)

In addition, in contrast to men, women argued extensively for the fulfilment of community rights, autonomy and dignity. Their arguments in this regard highlight the decision making on the use of the land in their territories and their right as a people to make the decision (pointing out that not only *ejidatarios* have rights):

"United we can vote for everything that comes from the company and not allow them to plunder our land".

- Testimony (women) (Asamblea Maya, 2019)

"We as a people will make the decision. And the *ejidatarios* say to us, how is it that you are not *ejidatarios* and can decide? Well, there are more of us than the *ejidatarios* who live in the town."

- Testimony (women) (Asamblea Maya, 2018, p. 17)

As well, arguments in favour of community rights, autonomy and dignity appear to be linked with the impact of the solar park in their livelihoods (socio-environmental affectations) and future generations:

"We all have land and territory [...] we are here to defend those lands because that is what gives us something to eat, because we are breathing clean air. Well, for me, it is a healthy life and what we must demand is that the government learns to respect our rights and that it does not favour the corporations".

- Testimony (women) (Asamblea Maya, 2019)

"Because when it comes, it is going to affect everyone, it is not going to choose: 'ejidatario, you have paper, here I am going to give you what corresponds to you in terms of sickness'. No, it's going to affect everyone, that's why we all have the right."

- Testimony (women) (Alarcón, 2017)

"Don't be discouraged, we are not alone, united we can, because we are a people, we are indigenous, and we are all going to fight and say no. If because of them [the

megaprojects] we are going to have divisions [among the community] then why do we want those projects. It's going to bring us problems, it's going to affect our health, it's not going to benefit us, nothing, so what's the point? It will bring illnesses to our children. As I say: tomorrow, we will leave, our children will stay."

- Testimony (women) (Asamblea Maya, 2018, p. 17)

3.2.1 Discussion

Although the motivations of the inhabitants of San José Tipceh are very diverse (both men and women), their gendered dimension, explored in the previous section, is consistent with some of the propositions of the ecofeminisms and FPE explored in the first chapter of this thesis. The findings also take the discussion further by incorporating other elements explored by Critical Political Economy and Political ecology regarding the territorial dynamics of extractivism and green extractivism.

Firstly, the concerns of the women of San José Tipceh about socio-environmental well-being and its link to the lives of their children and future generations are consistent with the contributions of ecofeminisms and FPE. These show that women often engage in environmental issues because of their culturally and socially ascribed position in the sexual division of labour. As the primary bearers of reproductive labour, women's motivation to get involved are more oriented towards promoting the care of human and non-human life than that of men.

A second issue that needs to be addressed is the fact that the defence of land and autonomy over territories appears largely in the opposition of the inhabitants of San José Tipceh to the Ticul A and B renewable energy projects. This agenda is expressed mainly by women, and even became more important to them than the direct socio-environmental impacts of the photovoltaic park. As mentioned before, the resource and land grabbing entailed in green extractivism, follows the patterns of the international division of labour (rooted in ethnic-colonial relations) in extractivism. Thus, the defence of control over territories and resources in San José Tipceh, may be seen as a continuation of racialized people's land-struggles derived from this model of appropriation (as described in chapter: 2.1.3 Indigenous peoples and the eco-territorial turn).

Moreover, the findings show how the rights and autonomy to decide on the use of land in the territory of San Jose Tipceh is seen by the women of San José Tipceh as a condition for having healthy socio-environmental conditions for the reproduction of the inhabitants' livelihoods and future generations. This finding resonates with the intersection between "feminist" or women

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concerning struggles and anti-extractive ones in Latin America (that have given rise to concepts such as concepts such as: "territorial feminisms", "communal feminisms" or "survival ecofeminism") (described in chapter: 1.1.2. Political participation of women in environmental matters). Specifically, the political agenda of women in San José Tipceh may be seen as part of the resistance of (mainly indigenous) women to the patriarchal and colonial threats (such as land dispossession) that jeopardise the relationship between the land (or *nature*) and their lives, in their territories (Cabnal, 2010).

In defending the ecological conditions and natural goods that allow for the reproduction of their lives and the lives of the communities to which they belong, the "everyday realities" of the women of San José Tipceh seem inextricably linked to the integrity of their territory and the autonomy of their communities to decide on it. By defending the right to autonomously determine how to organise the material conditions of their existence (Navarro Trujillo, 2022), they seem to be defying the capitalist way (imposed by extractivist, green extractivist projects) of organising the relationship between humans and nature - i.e. the subordination of life reproduction to the generation of profit.

Conclusion

This thesis has explored the interplay between the sexual division of labour, climate agendas and green extractivism, through the gendered dimension of resistance against the photovoltaic parks Ticul A and B photovoltaic in the Yucatan Peninsula, Mexico. By addressing the question: what are the motivations of women (in relation to those that drive men) to participate politically in socio-environmental conflicts in Green Sacrifice Zones? It explored the way in which "low-carbon transition" policies continue to subordinate life reproduction to the imperative of accumulation, a dynamic that is contested by the political subjects (in this case, racialized women) whose livelihoods are impacted by the material-territorial impacts of these.

The analysed testimonies of the San José Tipceh inhabitants against Ticul A and B reveals a gendered dimension in the resistance, where women emphasise the socio-environmental impacts on daily life and future generations, and advocate for the accomplishment of communal rights and autonomy. Their demands as well show associations between these two agendas by bringing up concerns about the use of land and the impacts this would generate in their livelihoods (e.g. by pointing out how the negative socio-environmental impacts derived from the use of land for the photovoltaic park would translate into affectations fo them, their children, the community, and future generations).

From this, it can be asserted that the demands of women in socio-environmental conflicts related to green extractivism shed light on what ecofeminisms and Feminist Political ecology contributions have proved. First, how women's political engagement is intertwined with their socially ascribed roles in the sexual division of labour. Second, the exclusion of women, specially racialised, and their agendas, in the making of climate agendas. Finally, and perhaps more importantly, the perpetuation of social inequalities through the construction of typecast subjects (seen as object/target) by these agendas.

The neglect of reproductive life in "low-carbon transition" agendas is constructed through these three dimensions. However, by inhabiting what can be named as a Green Sacrifice Zone, the demands of the women of San José Tipceh, also respond to a territorial dimension of reproductive labour that is linked to the social dynamics associated with their status as racialized women in certain geographies. In other words, rural zones located in regions that historically have been integrated into the global economy as suppliers of raw materials, and that are now also becoming target areas for the material needs in the supply chain for the "low-carbon transition", such as Latin America.

To understand this last point, the term green extractivism was employed. Despite the promises of renewable energy projects, the processes of resource land appropriation and socio-environmental impacts may be seen as a continuation of extractivism. This model is deeply intertwined with colonial dynamics and entails a transformation in the relationships between humans and humans and nature, specifically, the subordination of social reproduction to the principle of capital accumulation. However, the gendered dimension and the analysis of the sexual division of labour of these processes has been widely overlooked by the literature.

In their advocacy for community rights and autonomy, in the wake of climate change solutions, women articulate a broader struggle against extractivism, colonialism and top-down territorial reconfigurations. This can be seen as part of the historical struggles of indigenous and peasant women in Latin America for the defence of territory and against all threats that jeopardise the relationship between land and the life reproduction in their communities, highlighting the multiple socio-ecological dependencies that exist in their territories.

The voices of women in San José Tipceh shed light on how the solutions to the climate crisis (such as energy renewable infrastructure projects), reproduce intersected social inequalities, and continue disregarding questions such as reproductive labour and autonomy. In this sense, this thesis raises questions about "low-carbon transition" policies and socio-environmental justice. As well, it raises questions about how gender, ethnicity and social relations can be and social relations around these categories can be rethought in the wake of the climate crisis.

By exploring the gendered dimension of political resistance in socio-environmental conflicts, this thesis calls for a more critical approach to climate policy-making that addresses social justice. As well, from an intersectional perspective, it opens up questions about how to integrate feminist demands into environmental agendas to ensure they do not overlook the interconnections between geographical scales and between the discursive and material sphere.

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In this thesis, artificial intelligence was used sparingly and only to find synonyms and to improve the wording of some sentences.

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The following statutory declaration is a part of the thesis, and should be included in the bound work.

I, the undersigned,

Last name: Jiménez de León

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Title of Master's thesis: From Low-carbon Transition Agendas to Ground Reality: Life Reproduction, Women and Ethnicity

Name of supervisor 1 (Paris): Isabelle Hillenkamp

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