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Chair of Global Justice

The "Climate Subjection" of Women

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Alla mia famiglia,

fonte costante di motivazione, forza, impegno e dedizione.

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INTRODUCTION

As a matter of fact, climate change is advancing at an outstanding pace, making life on Earth more dangerous, causing profound effects on human livelihoods and natural ecosystems. Indeed, changes in temperatures of land and water surface are increasing both the frequency and the intensity of extreme weather-related hazards, including droughts, fires, and floods. Climate Change is a non-discriminatory phenomenon which affects everyone. However, due to different social roles, cultural, and economic implications women and men experience its impacts disproportionally. Indeed, women have often limited access to resources, limited access to justice, limited mobility, and limited opportunities to be represented in the international forum. This implies that they are often disproportionally included in the environmental decision-making process. However, at the same time, women have the capacity to bring critical solutions and important contributions to climate change challenges due to their knowledge and experience in managing natural resources. This is particularly true in most underdeveloped and developing countries of the global South. In gender literature, the counterpart of the vulnerable woman living in the South, victim of the adverse consequences of environmental degradation, is the virtuous woman of the North, gifted with greater environmental awareness and pro-environmental values. While women in the South are often the target of natural resource management programs in virtue of their knowledge of local environment, those in the North strove and continue to strive to gain truthful agency in the international environmental debates. However, due to the lack of institutional sensitivity to the issue, and feminists' persistent claim of women's strong association with the natural environment, the narrative of women-environment has generated a policy gridlock, that resulted in a rhetoric which displays rigid dichotomies between women in relation to nature. Besides having reverted the attention from the real systemic problems, this narrative has also brought to light how embedded the question is within the societal patriarchal structure. Indeed, while women of the rural South are often less represented in international fora, those who have the voice to speak up for climate action are subject to strong criticism, often on the base of their gender. My thesis will argue that women are, indeed, often more vulnerable than men to climate change (especially in rural contexts) and, at the same time, they are committed to combating climate change and greatly involved in pro-environmental attitudes, as many men are as well. However, women's attitudes and vulnerabilities should be contextualized and not assessed as entry points for gender discourses in the environmental international fora. Notwithstanding women's alleged proximity to nature and concern with the environment, the discourse about gendered impacts of climate change should not be framed as a dichotomous relation between women and men following

an unchangeable gender script. Before assessing the impacts of the different vulnerabilities to climate change, equal opportunities to attain economic and political power should be analysed first. My study is based on the belief that gender justice and climate justice must go hand in hand in order to build effective and equal responses to climate change; at a global level, there must be an understanding of how gender inequality works in affecting access and control of resources, institutional structures and decision-making processes. Moreover, behind the development of my thesis lie both the environmental, ethical, and philosophical challenges that anthropogenic climate change has brought along. These ethical perspectives will be discussed by providing the reader with a critical perspective. In addition, I will also provide some criticism reflections to the mainstream debates on climate change which present women as either passive victims of environmental degradation or important agents of change; thus, misinterpreting and de-contextualizing the real causes of vulnerability and shifting the focus from the real issue: systemic power inequities. How is my thesis relevant to the discipline of political philosophy? In my dissertation, I will explore the global justice aspects of climate change, assessing the ethics of the issue passing through matters of climate responsibility, inter-generational justice, and distributive justice. Furthermore, I will argue that to address the issue of climate change an intersectional analysis approach should be adopted. Indeed, an intersectional analysis of climate change sheds light on how individuals and groups deal differently with climate change depending on where they are situated in power structures, which are context-specific and socially categorised. The intersectionality framework, thus, has potential application as an analytical tool for understanding how interactions among multiple dimensions of power can determine the development of adaptation strategies to climate change. Indeed, multiple social, economic, and cultural characteristics interact with gender in influencing power inequities and explaining how and why people face and manage climate change in different ways. By adopting an intersectional analysis approach, my thesis will investigate the role of gender and its interaction with different factors in determining adaptive responses to climate change. In providing a critic of existing power relations and institutional practices relevant for climate issues, I believe that intersectionality can contribute to develop alternative knowledge decisive for more effective and just climate strategies.

The structure of the thesis is the following. The first chapter will initially explore the different impacts of climate change and environmental disruption analysing gendered impacts in the following "areas": agriculture and food production; water scarcity; deforestation; different coping capacities in the face of natural disasters; energy use and production; and the disruption of the marine ecosystem. In dealing with these issues, the chapter will demonstrate how and why women are more disadvantaged than men in bearing the adverse impacts and consequences of human-induced environmental degradation. It will be argued that these differences are due to socio-economic and political conditions in which

women in most rural context are embedded. As the 2012 World Bank Development report suggests "women and girls are often disproportionately vulnerable to natural disasters and climate change impacts where their endowments, agency, and opportunities are not equal to those of men." It can be argued with absolute certainty that every person worldwide experiences the impacts of climate change. However, the consequences of human-induced climate variability and environmental degradation do not affect everyone in the same way. Indeed, both vulnerability and adaptive capacity to climate change will vary considerably depending on social, economic, political, and cultural implications. The 2018 UN Women Report on Gender Equality in the 2030 Agenda, clearly states that all the human-induced climate consequences have disproportionately negative impacts on women and children, who are "14 times as likely as men to die during a disaster". According to the report, the adverse effects of climate change also impact women's livelihood, especially in rural communities by reducing crop and forest yields, and the harvesting of marine life. This is so because at a global level, especially in rural communities, women represent the majority of who are engaged and responsible for reproductive tasks in the households, agriculture production, fetching water or timber or other foraging activities. Thus, climate-induced disasters exacerbate entrenched gender inequalities. However, gender differences relating to the impacts of climate change should be considered in relation to the underlying societal dynamics such as social status, poverty, power, and access to and control over resources. If this effort is not implemented, one might run the risk of reproducing gender roles and negative stereotypes, further exacerbating gender inequality in relation to climate change. Finally, the chapter will conclude by discussing gender and climate finance, along with its limits and the urgency of making it more gender-sensitive if adaptation and mitigation efforts to combat environmental disruption have to achieve their maximum potential and effectiveness. In fact, given the differences that women and men have in adaptive and mitigative capabilities, financing instruments and mechanisms should reflect these differences and take them into account in funds designing and operationalization, as well as concrete project financing. Indeed, there is widespread agreement that work remains to be done in engendering the larger global climate finance regime. If properly designed and executed, climate financing mechanisms aimed at empowering women and promote gender equality have a double potential to make climate change responses more effective and, simultaneously, improving women's lives. Evidence shows that gender-sensitive finance regimes are likely to be more effective as gender equality and empowerment of women generate more productivity, socio-economic development, environmental sustainability, and increasing results in adaptation and mitigation efforts towards climate change.

 The second chapter will cover feminist environmental ethics and some aspects of contemporary environmental ethics. It will start by explaining Western Environmental philosophy; a philosophical

discipline rooted in environmental ethics that was born in the early 1970s to investigate the moral relationship between human beings and the environment, including non-human animals, their value, and moral status. It did so by challenging traditional western environmental ethics and its human-centred approach, which attributes intrinsic or higher value to human beings than to non-human things. Attributing intrinsic value to non-human things means considering their value as non-instrumental, as having an end in themselves regardless of their utility or means to other ends. Thus, the possession of intrinsic value in themselves, makes non-human things morally valuable and generates a prima facie moral duty to protect it or at least refrain from damaging it. As mentioned before, the critic of traditional anthropocentric western ethical perspectives has been the focus of environmental ethics. However, the study of the moral relationship between human beings and the environment has evolved in various theories. It now covers a significant number of different positions according to which philosophical lens is adopted. The second chapter aims at investigating these different philosophical positions, with a specific focus on feminist environmental philosophy. Indeed, some, such as feminist theories, have shifted the focus from the *Anthropos* ("humans") to the *Andros* ("men"), arguing that environmental degradation results from human exploitation of nature, which is a manifestation of the oppression of women in male-dominating culture. More specifically, feminist environmental philosophy conceives nature as a feminist issue because they claim that through the understanding of environmental issues is possible to understand how and why women's oppression is connected to the unjustified exploitation of nature. Some feminists do not endorse an androcentric or patriarchal oppressive structure framework. However, they still maintain that anthropocentrism is responsible for environmental degradation. On the other hand, some authors debate on which kind of non-anthropocentric outlook one should adopt to consider the moral value of the environment. Thus, both feminist and non-feminist western environmental ethics assume the opposite of what canonical philosophy argues, namely that non-human animals and nature do have moral relevance and thus humans are responsible and morally obliged towards them. More precisely, concerning the former, the chapter will describe and provide critical reflections of different ecofeminist perspectives on the relation between women and nature. These are: the care ethical theory, the materialist theory, the spiritual-cultural approach, and the linguistic, and vegetarian perspectives. It will be argued that these theories do not always make a case for a good understanding of women's role within the environmental domain. On the other hand, the chapter will cover other contemporary environmental, ethical theories. It will demonstrate how different theories adopt distinct non-human centred approaches depending on their consideration of the environment as intrinsically or instrumentally valuable. Indeed, these theories show different possible philosophical approaches to not human-centred ethical theories. More precisely, it will deal with Arne Ness' deep ecology theory which,

contrary to other perspectives, focuses on ecological wholes such as species, populations, biotic communities, and ecosystems and sees in these collective entities the only locus of intrinsic value. Moreover, the deep ecology theory has significantly informed the ecofeminist debates. In fact, the chapter will conclude by exploring the major feminist critics aimed at it.

The third chapter is structured as follows. The first part will cover the existing links between gender and the environment. Specifically, the two popular strands which entered the environment-women discussion, namely ecofeminism from a Southern perspective and Women, Environment, and development (WED). Furthermore, it will be discussed the attempt to introduce the political claim for gender to enter the environmental agenda which led to an oversimplification of women's identity as a one- dimensional category. Since the Earth Summit held in Rio de Janeiro in 1992, the feminist presence became intrinsic to the environmental agenda, and women's defence of nature and the environment became a fixed "storyline" within global forums. The assertion that women from the global South were the hardest hit by the increasing environmental degradation gained significant currency, and therefore women started to be acknowledged as the principal caretakers of the environment. However, the maxim linking women to the environment came under question by some feminist scholars. Their argument rested on the assumption that slogans that drew attention to women as the environment's victims and caretakers did not match complex and daily realities of power inequalities. Despite these stereotypes' critiques, women-environment linkages persisted in global discourses on the environment and climate change. This has limited the conception of women as an heterogenous group and diverted the attention from the claim of the political space. In this regard, the evolution of the gender-environment link in climate change discussions will be briefly analysed. The second part of the chapter will analyse the connection between women's climate change vulnerability and poverty, by questioning the "feminization of poverty" thesis. It will be argued that the dichotomy between vulnerable or virtuous women in relation to the environment presents a static conception of women's roles. The discussion will proceed by maintaining that this insistence on women's universal vulnerability (at least as far as the developing world is concerned) can have an opposite effect. It will be argued that this also denies them agency, constructing their vulnerability as their specific problem while reinforcing differences between women and men. The discussion does not intend to deny that women are vulnerable in a multitude of situations. Rather, it asserts that generalizing about it tells us little about the configuration of social relations of power in specific contexts or how the vulnerability is produced for other groups. In other words, it will be argued that a generalized belief in women's vulnerability silences contextual differences. The relegation of gender mainly to vulnerability and

partly to virtuousness detracts attention from the problem that afflicts both the North and the South, and that is gender and power inequalities in decision-making in environmental management. Marginality needs to be viewed through the power relations that produce the vulnerability in the first place since the specificity of vulnerability may differ. The chapter will conclude by highlighting the necessity to reconceptualise vulnerability and gender. Women need to be seen like men being responsible and as well capable agents in mitigating climate change without losing track of power relations involved, without being categorized as earth-carers from the South or taking the blame for the North's eco-sins. The analysis needs to go beyond the impacts experienced by vulnerable women and start to look at the ways in which gendered discourses create and perpetuate gender asymmetries. In this way climate change policy might be framed through more inclusive, gender-sensitive discourses.

The fourth and last chapter will deal with climate change denial, masculinity, and environmental concerns. Every historical process, every scientific discovery, every political ideology, has always been opposed to a specific form of denial, committed to supporting opposing theses that denied the existence or refuted the original theses' power and influence. The scheme of action is almost always the same, more or less credible and influential personalities are identified to be able to embody the negationist myth with the authority sufficient (very often academic) to fight the only real enemy identified, namely the authoritativeness of science. For what purpose? The goal is to safeguard mainly economic and political interests. It will be argued that this is the case, too, of climate denial. The studies on the reality of anthropogenic global warming are many, the evidence is overwhelming, and scientists agree on the already visible consequences of climate change. Yet many people around the world think that climate change is an invention, or at least claim that it is not an imminent event, that it is less dangerous than the data indicate. In fact, previsions about the temperature rise of the Earth's surface related to fossil fuels emissions have been supported for more than thirty years by scientific research and community. However, research of this kind, have been joined by other research aimed at delegitimizing the climate alarm and fight the worldwide environmental policies in continuous diffusion. The chapter will investigate this "game of the parties" that sees the two opposing factions take sides: on the one hand, the scientific authority, that remains faithful to its main channels of diffusion, on the other hand, political lobbies and economic interests that exploit the fruitful field of public opinion and social manipulation through information. In fact, there have been many discussions about the environmental state of the planet and what can be done to avert a real global climate crisis. And it was precisely in the media arenas (as well as on social media) that this democratic discussion emerged. The first part of the chapter will deal with the relationship between climate change denial and masculinism. What kind of relationship is there between climate change

denial and gender discrimination? How does the climate issue affect gender inequality? Why is it believed that climate battles and environmental protection are generally carried out by young women (very young) and are opposed mostly by white, western, and right-wing adult men? The discussion will draw from several research publications that show that climate change sceptics are often adult men, white, Western, right-wing, and anti-feminist. Indeed, evidence suggest there is a direct link between conservative white men and climate change denial. It will be argued that the correlation existing between the two comprises evidence that climate change denial is a form of "identity-protection" and a "system-justification" tendency of political conservatives, which explains their stickiness to the status quo and resistance to attempts to change it. More specifically, by integrating the identity-protection thesis about white males, and the system-justification tendencies about conservative individuals the theoretical framework for the "conservative white male" effect will be explained. In addition, the chapter will elaborate on the strong affiliation existing between right-wing, conservative politicians and the fossil fuel industry in promoting anti-climate change research to hamper any form of social change to preserve the status quo. The analysis goes further by elaborating on the relationship between climate sceptics and masculinism by introducing the concept of industrial breadwinner masculinity. It will be explained that this term stands for Western white men's (and the hyper-masculinised system that supports them) social, economic, and political advantage which describes the specific values and behaviours connected to a form of masculinity that sees the world as separated between humans and nature. Moreover, it will be point out how these white, adult, right-wing conservatist men often use a reactionary language, violent, intensely sexist that seeks to protect their well-defined identity. Indeed, this has been the case with the frequent attacks on the young Swedish environmental activist Greta Thunberg, often resulting in real hate campaigns from climate sceptics. More generally, the most frequent attacks do not pass only through the political ideas that these individuals defend but are transformed into targeted attacks that exploit personal and subjective characteristics. It will be argued that the commentators who verbally attack Thunberg are part of a well-established network of radical free-marketeer lobby groups which has strong ties with the fossil fuel industry and funders of climate science denial. Perhaps the most notorious example of these kind of attacks is represented by US President Donald Trump's curious use of the social network Twitter. The second part of the chapter will explore gender, environmental concerns, and behaviours in the attempt to answer whether women are for real more concerned for the environment than men. The discussion will draw from several studies showing that women, in general have, a higher level of concern for the environment but are less keen to engage in activism. Indeed, despite the inconsistency of the results, there is widespread support in Western literature to women's stronger attitudes towards pro-environmental activities and values. Concerning this, two main theoretical explanations will be

provided, namely the gender socialization perspectives and the biographical availability thesis. The chapter will conclude with the analysis of a study on gender and environmentalism, which illustrates that women's participation in public environmental behaviours has revealed to be reduced due to women's social roles which constrain their available time and commitments. Notwithstanding the time and space in which the gender-environment linkage is taken into analysis, these results confirm the claim that the focus should be on the systemic power inequities that characterise discourses about women and the environment rather than on a mere assessment on the impacts of climate change that categorize women as either victims or agents of change.

CHAPTER ONE

1. WHY AND HOW ARE WOMEN MORE VULNERABLE THAN MEN TO THE IMPACTS OF CLIMATE CHANGE?

1.1 Introducing the Gendered impacts of Climate Change

According to a 2012 World Bank Development report, "women and girls are often disproportionately vulnerable to natural disasters and climate change impacts where their endowments, agency, and opportunities are not equal to those of men." As a matter of fact, climate change is advancing at an outstanding pace, making life on Earth more dangerous, causing profound effects on human livelihoods and natural ecosystems. Indeed, changes in temperatures of land and water surface are increasing both the frequency and the intensity of extreme weather-related hazards, including droughts, fires, and floods. It can be argued with absolute certainty that every person worldwide experiences the impacts of climate change. However, the consequences of human-induced climate variability and environmental degradation do not affect everyone in the same way. Indeed, both vulnerability and adaptive capacity to climate change will vary considerably depending on social, economic, political, and cultural implications. The 2018 UN Women Report on Gender Equality in the 2030 Agenda, clearly states that all the human-induced climate consequences have disproportionately negative impacts on women and children, who are "14 times as likely as men to die during a disaster". According to the report, the adverse effects of climate change also impact women's livelihood, especially in rural communities by reducing crop and forest yields, and the harvesting of marine life. This is so because at a global level, especially in rural communities, women represent the majority of who are engaged and responsible for reproductive tasks in the households, agriculture production, fetching water or timber or other foraging activities. Thus, climate-induced disasters exacerbate entrenched gender inequalities. However, gender differences relating to the impacts of climate change should be considered in relation to the underlying societal dynamics such as social status, poverty, power, and access to and control over resources. If this effort is not implemented, one might run the risk of reproducing gender roles and negative stereotypes, further exacerbating gender inequality in relation to climate change. The structure of the chapter is the following: it will first explore the different impacts of climate change and environmental disruption analysing gendered impacts in the following "areas": agriculture and food production; water scarcity; deforestation; different coping capacities in the face of natural disasters; energy use and production; and the disruption of the marine ecosystem. In dealing with these issues, the chapter will demonstrate how and why women are more disadvantaged than men in bearing the adverse impacts and

consequences of human-induced environmental degradation. It will argue that these differences are due to socio-economic and political conditions in which women in most rural context are embedded. Finally, the chapter will conclude by discussing Gender and Climate finance, along with its limits and the urgency of making it more gender-sensitive if adaptation and mitigation efforts to combat environmental disruption, have to achieve their maximum potential and effectiveness.

1.2 Gender, agriculture, and food production

Land plays a fundamental role in Earth's climate system and comprises the primary foundation for human well-being and livelihoods. In an IPCC Special Report on Climate Change and Land (2019), experts assessed that human use and exploitation of global ice-free land surface accounts for approximately 70%. Due to the growing population, many regions have witnessed an expansion of areas devoted to agriculture and forestry due to commercial production and consumption, and food availability. These human activities have led to the increase of net GHG emissions which have brought along loss of the natural ecosystems (such as forests, savannahs, natural grasslands, and wetlands), and loss of biodiversity as well. As a matter of fact, anthropogenic environmental degradation is such a pervasive force to the point that it has been assessed that about a quarter of Earth's ice-free land area has been affected by it. Agriculture, Forestry and Other Land Use (AFOLU) activities accounted for around 13% of CO_2, 44% of methane (CH_4), and 81% of nitrous oxide (N_2O) emissions from human activities globally during 2007-2016, representing 23% of total net anthropogenic emissions of GHGs (IPCC 2019). Indeed, since the pre-industrial period, the land surface air temperature has soared, reaching almost twice the value of global average temperature. Experts report that from 1850-1900 to 2006-2015, the mean of the land surface air temperature increased by 1.53°C (Ibid). This has led to more intense and more frequent, durable heat-related occurrences globally, including heavy precipitations, droughts, heatwaves, flooding, dry-spells, sea-level rise, and rainfalls. Moreover, the study reveals that in 2015 there were about 500 million people living in areas affected by desertification between the 1980s and 2000s, with the highest registration in South and East Asia, the Sahara region but also in North Africa and in the Middle East. Climate change and the subsequent increases in frequency and intensity of extremes, have adversely impacted food security and terrestrial ecosystems and contributed to desertification and land degradation in many regions while exacerbating these processes in other regions. In fact, climate change creates additional stresses on land, exacerbating existing risks to livelihoods, biodiversity, human and ecosystem health, and infrastructure. This means that some regions will face higher risks with respect to others, which will face risks previously not expected. Increased desertification will

disproportionally affect Asia and Africa while North America, South America, Mediterranean, southern Africa, and central Asia might be increasingly affected by wildfire. In addition, it is predicted that the tropics and subtropics will be the most vulnerable to crop yield decline. In fact, experts report some shocking predictions, especially concerning drylands, where climate change and desertification are expected to cause reductions in crop and livestock productivity and reduce biodiversity. In addition, vulnerable populations living in those drylands and subject to water stress, drought intensity, and habitat degradation is estimated to hit 178 million people by 2050 at 1.5°C warming, which will increase to 220 million people at 2°C warming, and 277 million people at 3°C warming (IPCC 2019). What is more, within populations, certain groups are considered more at risks than others, namely women, the young, elderly and the poor.

According to the UN Women Report (2018), one-fourth of all economically active women at the global level are engaged in agriculture. This is particularly true in Asia and Africa where the majority of people in rural communities are employed in the agricultural sector, or related activities are women. As reported by a working paper on the role of women in agriculture written by FAO (2011), women make up the 43% of the global agriculture force and of that in developing countries, while they comprise half or more of the agricultural labour force in many Asian and African countries. In addition, women make essential contributions to agriculture and rural economic activities in all developing country regions, even though their roles vary considerably among and within regions and according to age and social class (FAO 2011). Projections predicted that by 2050 climate change will lead to reduced production of rice, wheat and, maize by 15, 49 and 9 per cent, respectively, in South Asia and by 15, 36 and 7 per cent in sub-Saharan Africa, resulting in higher food prices and heightened food insecurity (Agarwal 2014). As a result of reductions in crop yields, food distribution within households will be massively affected, potentially activating gender unequal nutritional outcomes. Moreover, conducted time use surveys have provided evidence that rural women's labour burden exceeds that of men and includes a higher proportion of (unpaid) responsibilities in the household in tasks such as food preparation and water collection. It has been estimated that women already contribute 60 to 70 per cent of their total labour time to food production, processing and preparation; an decrease in agricultural yields due to climate variability will increase even more the labour time spent in such activities (FAO 2010). Thus, it can be stated that the contribution of women to agricultural and food production and preparation is undoubtedly significant (FAO 2011); however, they bear the disproportional burden of the effects of climate change. In fact, an important aspect of comprehending the gender-differentiated impacts of climate change in the agricultural sector is women's higher dependency on biomass for their livelihoods and energy needs. Indeed, due to their heavy involvement in agricultural production and the management of natural resources, rural women

depend on the ecosystem for food security. In a recent study conducted in Malawi (Asfaw & Maggio 2017) it has been proved that the effects of extreme weather events reducing consumption, and nutrition, are more pronounced in areas where women predominantly owned land. Indeed, they are likely to suffer increased nutritional problems due to their low-income status and limited access to financial resources. Moreover, increased poverty and food insecurity will also cause problems relating to anaemia, common in pregnant women, and health risks accentuated by the paucity of resources in both pre- and post-natal care. It follows that when there is higher climate variability, women who are involved in agriculture disproportionately bear these climate shocks. The main point here is that agricultural vulnerability to climate change depends on cropping practices and access to land (Gender and Climate Alliance 2016). Although it is not possible to generalize on women's role in the agriculture sector, there is one generalization that does hold true across different countries, regions, and contexts: female farmers control less land and livestock with respect to their male "colleagues." (FAO 2011) This entails that adaptive capacities to the impacts of climate change are clearly not gender- sensitive. In a study conducted in 2015 on the Gender impacts of Land Tenure Reform which reviewed 14 empirical community case studies from several countries, the authors addressed a worrisome trend which they named "the masculinization of rural space." By this they mean that "in many contexts, women are the dominant producers in rural livelihoods and male outmigration is still important phenomenon, but many tenure reforms appear to be quite persistently entrenching and solidifying men's disproportionate control of, access to, land and natural resources" (Archambault & Zommers 2015). Also, according to FAO (2011) gender gaps in access to land and legal rights to land resources are significantly present in many countries. In more than half of the world's countries, this is due to customary, traditional, and religious rules discriminating against women, and which ignore -when present- statutory legislation that grants them these rights. Data on women's role in the agricultural sector point to deep gender inequalities. Women are far less likely to have access to, control over and ownership of land and other productive assets relative to men: despite women accounting for 43% of the labour force in the agricultural sector (Oxfam 2019), women only account for 13% of agriculture holders or landlords globally (UN Women 2019). Women's share ranges from 0.8 per cent in Saudi Arabia to 51 per cent in Cabo Verde, with an overall global share of 12.8 per cent (FAO 2010). Available evidence shows that, when women own land, their plots are generally smaller and of lower quality than men's and their rights to the land are less secure. Women landowners produce 20-30% less than men farmers because of two exclusions: that they are small farmers and they are women (Oxfam 2019). Another aspect of women's discrimination in land ownership is inheritance laws that determine who will have access to land or who will continue

using it. Concerning this, divorced women, women, and girl orphans can be profoundly disadvantaged (UNEP 2016).

1.3 Gender and water scarcity

Climate change and land degradation are relentlessly changing rural landscapes across the world in developing countries, this manifests in the scarce surface water availability. Women in rural contexts are usually given the task of fetching water (FAO 2017); this means that as a result of increasing droughts, they have to walk greater distances to collect water, which in turn means that their already substantial workload further increases. The Food and Agriculture Organization of the United Nations (2017) reports that in Sub-Saharan Africa alone, about 40 billion hours per year are spent to collect water (the same as a whole year of labour by France's entire workforce). While, according to the United Nations Environmental Programme (2016) women across India spend 150 million working days per year carrying and fetching water which equals a national loss of income of 10 billion rupees, corresponding to 160 million US dollars. These data suggest that the time women and girls spend on water collection has important effects on their lives, diminishing their ability to control how to spend and invest their time in other activities. Indeed, increased time taken to fetch water may entail that young female household members are additionally required to help with household duties, increasing the likelihood of missing school. According to the UN Population Found (2009), women are the household s managers and primary carers for family members, thus drought and erratic rainfall force women to work harder to secure food, water, and energy for their homes. Furthermore, girls are often forced to drop out of school to help their mothers with these tasks. This cycle of deprivation, poverty, and inequality undermines the social capital needed to deal effectively with climate change (UNFPA 2009). It should be highlighted that there are instances in urban areas in which the burden of water collection might be alleviated through motor vehicles or means of transportation in general. However, access to scooters, cart, bicycles and other means of transport is heavily gendered, due to the fact that men mostly own these and that cultural norms in some countries might hinder women and girls' ability to ride a bicycle or drive other motor vehicles as they are often considered to be male tools; even where these beliefs are not diffuse men tend to appropriate the most efficient types of transport (UNEP 2016). Also, women engaged in the agricultural workforce must adapt to increased instances of drought and desertification due to climate change. As a result of water scarcity, it is not uncommon that men tend to leave rural communities to search cultivable crops elsewhere. Indeed, with men migrating in search of employment, women become the effective heads of households and assume responsibilities traditionally assigned to men (Alam et al. 2015). The main problem here is that

women do not have the same authority as men in decision-making power, or even access to community services, education, or financial resources. Furthermore, depending on the context, women may also be disadvantaged by discriminatory laws and customs, which prevent them from acquire, own, and retain land or other assets, such as livestock. An example of this unequal scenario is the 2011 drought in Kenya. Indeed, when men migrated away from rural communities with livestock in search of water and pasture, women were left in charge of households with very few resources. As reported by Alam et al., in Kenya, women in pastoral communities were not allowed to make decision about selling or slaughtering livestock without men's permission, so they had to wait for men to return. This customary rule left them in precarious food and economic security conditions. The consequences were not rosy: petty trade and prostitution increased, along with the risk of contracting HIV/AIDS. Thus, both drought and desertification, coupled with other factors, may trigger food insecurity, famine but also health concerns for women. The impacts of droughts and desertification on women's health is especially true for rural women living in water-stressed areas, such as Sub Saharan and West Africa. Indeed, increasing water shortages are directly linked with exacerbated health and sanitation concerns for women. For example, in West Africa, due to changes in seasons and climatic conditions, women and children, are forced to use water supplies from dirty ponds, as these tend to dry up during the dry season, which inevitably increases their exposure to water-borne diseases (Denton 2002). Thus, health threats related to global warming face women with more immediate health risks than men, due to their role in the gender division of labour. As water collectors, women face high exposure to malaria, endemic in many parts of Africa (Denton 2002). Moreover, walking longer distances to fetch water for domestic purposes such as drinking, cooking, clothes- washing or sanitary use as well as for agricultural aims, put girls and women at high risk of physical insecurity, meaning sexual assaults, rapes and harassments. This is true also within domestic walls, due to the lack of access to water (particularly in drought-affected regions) which might contribute to tensions and violence between partners (UNEP 2016)

1.4 Gender and Deforestation

Deforestation will affect the livelihoods of both women and men. However, as in the case of agricultural activities, and water scarcity, the impacts will be different because of important gender differences in the extent of dependence on forests to sustain livelihoods, according to the UN Women Report on Gender Equality (2018). In fact, women, and girls from landless, and land-poor houses rely on forests as resources for collecting firewood, fodder, food items and other non-timber products. The implementation of these tasks is, once again, due to their roles in cooking, cattle care, supplementing household nutrition, and associated tasks. The report confirms the fact that poor rural women depend more than men on common pool resources such as forests due to their lack of access to private land (UN Women 2018). However, unequal access to forest resources can result in food insecurity, low resilience to disasters, and environmental change as well as lower incomes (UNEP 2016). Thus, it can be argued that women, to fulfil their responsibilities as household managers, are disproportionately affected by the depletion of forests. Some evidence might be helpful to comprehend and confirm the previous statement fully: a study in Malawi found deforestation was forcing older women to walk more than 10 kilometres a day to collect fuel wood while in Zambia, women spend on average 800 hours a year on the same task, and in the United Republic of Tanzania, they spend 300 hours a year. In addition, if we couple depletion of natural resources with the phenomenon of 'land grabbing', namely the expropriation of land for commercial purposes, the overall picture gets even worser. Indeed, concerning the afore-mentioned phenomenon of coercively evicting people from their land, it is widespread but intensively present in parts of Africa, Asia, and Latin America. How does land grabbing relate to gender inequality in dealing with the impacts of climate change, then? The answer is quite straightforward if we consider that women do not have access to private land, then the expropriation of land for commercial purposes further exacerbates women's climate subjection. Evidence suggests that forest areas decreased between 1990 and 2015 from 31 per cent of the Earth's total landmass to 30.7 per cent, mostly due to the conversion of forest land into agriculture and infrastructure (UN DESA 2017). The decrease of forest areas often translates in conflict for resources between communities, and destruction of livelihoods, also because of the introduction of pesticides and industrial-scale monocultures. According to a research conducted by Oxafam (2011), it has been estimated that 227 million hectares of land in developing countries were sold or leased to international investors between 2001 and 2011 alone. Forest depletion along with land grabbing are indeed significant threats to forest biodiversity, agrobiodiversity, and forest-dependent populations, the majority of which are women, who, as already argued, are heavily dependent on subsistence-oriented forest products. Finally, according to the Indian Economist Bina Agarwal, women's specific knowledge and dependence on forests makes them critical contributors

to forest conservation. Indeed, in a research conducted in 2009 on the impact of women's participation in community forest governance, Agarwal shows that the presence of a critical mass of women (between 25 and 33 per cent) in community forestry institutions has a an overall positive impact on forest condition, regeneration and also strengthens their political agency.

1.5 Gendered impacts of natural disasters

In a landmark paper, Neumayer and Plümper (2007) analysed the gendered differences in disasters mortality in a sample of 141 countries between 1981-2002. They found that, when it came to deaths, gender differences were directly linked to women's economic and social rights; indeed, according to the authors, in societies where women and men enjoyed equal rights, disasters caused the same number of deaths in both sexes. From the study, it appears that these discrepancies were the result of existing socio-economic inequalities between men and women. In fact, the impacts of disasters are not 'natural' as their origin, since they are more a result of the actions of human beings and context-dependent according to social inequalities and the depletion of natural resources; if such disasters hit societies which are based on unequal gendered power relations, the result will be that some people will experienced them in a very different way (Bredshaw 2004); thus, 'natural disaster' is a human labelled name, since "nature does not actually experience anything as a disaster, instead it does produce events that are disastrous to humans and have unexpected social consequences that exceed people's capacity to control them" (Welzer 2012). The unexpected social consequences of disasters, indeed, exceed women's coping capacities and thus expose them to a higher vulnerability to such hazards. According to Neumayer and Plümper (2007), three major causes are explaining why female life expectancy is systematically and disproportionally affected by natural hazards. First, biological, and physiological differences between men and women do acquire importance when it comes to a disaster's physical impact. It is quite straightforward, and it also follows common logic that women would find themselves less equipped to withstand the physical impact of a natural hazard. Indeed, due to their different physical features, in terms of physical strength and body size, they will be less able to self-rescue; let one think about running or climbing. These activities may require a strength component and a pace which women cannot bear. Such scenario gets even more tragic if we take in consideration pregnant women, especially if they are in the final stages of pregnancy. However, a study by Oxafam International (2005) suggest that vulnerability to natural hazards is not just a matter of biological or physiological gendered differences. Indeed, it is a problem that is partly determined by acquired coping skills. In fact, the authors report an example from Sri Lanka, which is useful to highlight the fact that climbing trees or swimming are predominantly "male tasks", meaning that these

activities are taught and done exclusively by men, who then are the only one to possess vital skills in the case of a tsunami or a flood. This brings us to the second cause of vulnerability and gendered mortality to natural disasters. According to Neumayer and Plümper (2007), social norms and role behaviours are extremely important in assessing women's clear disadvantage in rescue attempts. However, it may me objected that many women in different cultures accept these social norms and role behaviour according to their personal beliefs, indeed in a completely voluntary manner. Unfortunately, it is important to bear in mind that such norms and roles are often a by-product of unequal power relations between men and women in many societies. There are many instances, in several countries, in which women are relegated to the caring tasks, namely look after the children and the elderly members of their families. However, also dress codes present in certain cultures may restrict women's mobility; an example is a *sari*, a traditional female vest of the Indian subcontinent. Imagine running or even swim for self-rescuing from a tsunami or a flood, wearing such hampering clothing. It would be difficult for any women who has skills in such activities. Suppose we associate to this the fact that women are often subject to prejudice when it comes to learning male-dominated tasks. In that case, it derives they find themselves either completely helpless or relying on their husbands, fathers, or brothers. Another way in which unequal power relations between men and women is evident is the traditional division of labour. How can this difference disadvantage women in the event of a natural disaster? The study conducted by Oxfam (2005) reports that in the 2004 Asian tsunami, women in many villages in the Aceh region, Indonesia, and in parts of India accounted for over 70 percent of the deaths. In Indonesia, when the tsunami hit the coast, the majority who perished were women who lived in rural coastal areas, due to the fact that they were at home while the male family members were away, working. According to Oxfam (2005), male survivors in Indonesia outnumbered female survivors by almost three to one, in the worst case 80% of deaths were female. The Oxfam's evidence is supported by Rofi et al. (2006), who found that two-thirds of tsunami deaths in Aceh Province, Indonesia, were female. In India, the case was analogous. In fact, many women, waiting at the seashore for the fisherman to bring the catch, were hit by the waves arriving at a higher strength as they approached the shore, bringing their fatal impact directly at the coastal areas. Another similar situation is reported in the case of earthquakes, during which men are more likely to be at the outside or in sound buildings (such as factories) while women are at home in often precarious and inadequate building structures. The immediate effects of disasters are strongly interconnected with gender differences in casualty rates resulting from gender differences in physical and socio-economic endowments. However, a high percentage of female fatalities is common but not universal (UNEP 2016). For example, evidence suggest that during the 1995 Chicago heat wave in the United States, elderly African American men were most likely to die. Especially in floods, young

males appeared to be particularly vulnerable through a greater propensity for more reckless behaviour towards risk (Neumayer & Plümper, 2007). Neumayer and Plümper found the third cause for female higher mortality in natural disasters in the discriminatory access to resources and temporary breakdown of social order after the disaster occurred. In the aftermath of a natural disaster, indeed, the pre-existing discriminatory processes are exacerbated and detrimentally affect and intensify women's and girls' health. This applies to resource distribution, which will inevitably reflect the patriarchal structure of society were women were and continue to remain marginalized while facing scarcer resources. In fact, according to several disaster researchers, in many countries, women are excluded from the manging and control of relief efforts. On the other hand, another major issue for women after a disaster is the increase in domestic and sexual violence due to disaster-induced stress, alcohol abuse, and the breakdown of law and order (Bradshaw 2004). The fact that women are massively exposed to sexual abuse and violence in post-conflict scenarios is something not new at all. However, it might be said that the focus on conflict overshadowed the fact that such abuses also happen in the aftermath of a natural hazard, during which law and order are difficult to implement, and victims have to seek refuge in camps or in other temporary facilities. In refugee camps that arise after a natural disaster has occurred, women and girl refugees, are exposed to higher risks than their male counterparts. Moreover, social strains in such situations aggravate stress levels in the family, which may result in incidences of domestic violence. Indeed, it is in refugee camps that unaccompanied women became prey and subjects to sexual abuse and rape. In addition to this, women might be more disadvantaged in relation to the dreadful hygienic conditions of the camps, something that is intensified when there are cultural or religious norms that prevent women to share those spaces with men; a costume which, in most of the cases, is impossible to respect in refugees camps. It is important to highlight that neither the world's wealthiest countries can be spared from the dangerous social repercussions of climate change. In his book "Climate Wars", Harald Welzer gives us a vivid picture of the consequences of Hurricane Katrina, which in 2005 hit New Orleans, in the United States, and left the city under 7.60 metres of water. Indeed, the consequences of the hurricane resulted in a proper social disaster: uncontrollable violent outbreaks, attacks on relief teams, shootings, shop lootings and rapes. Furthermore, the repercussion of the flood touched the population unequally. While the wealthier dwellers were able to flee the city, most of the people trapped in New Orleans were African American women and children, the poorest demographic group in the US (UNDP 2013). So, more women and girls die during and after natural disasters, usually at a younger age, with respect to men and boys. This is due to the interaction between biological and physiological differences between men and women within disadvantaged socio-economic patterns: social norms and roles that differently restrict their behaviours, emergent resource shortages, and the temporary breakdown of

social order (Neumayer & Plümper, 2007). For the reasons stated above, the argument about the disproportional impacts of natural disaster is strongly in favour of an intersectional gendered analysis rather than a simple biological sex-based analysis. Moreover, according to the UNEP (2016) women may be disadvantaged in many other ways during environmental disasters due to their under-representation in both formal and informal decision- making roles pre- and post-disaster. However, women are more likely to believe warnings and have a greater propensity to act on them.

1.6 Gender, energy use, and production

Energy production and consumption are critical drivers of livelihoods, economies, and environmental conditions. According to the UNEP (2016), fossil fuel burning is the largest source of the anthropogenic greenhouse gas (GHG) emissions that are the leading cause of global climate change, and roughly two-thirds of all GHG emissions come from the energy sector (IEA 2015). Energy use then is certainly one of the main aspects upon which action must took in mitigation strategies for combating climate change. It is not surprising, then, that fossil fuel burning is at the centre of global climate debates due to the irreversible impacts of large-scale energy infrastructures and the related extractive industries' impacts on ecosystems, biodiversity, and communities (UNEP 2012). At the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP21) in Paris in 2015, all countries agreed on a long-term goal to keep the average global temperature increase below 2°C compared with pre-industrial levels and to aim to limit this increase to 1.5°C (UNFCCC 2015). In order to meet this commitment a rapid transition from fossil fuels to renewable energy sources such as solar, wind, geothermal, hydropower, and ocean power must be fully accomplished. However, access to affordable and clean energy sources worldwide is strongly biased. Indeed, as in 2018 1.1 billion people globally lacked access to electricity, while more than 3 billion people, particularly in Asia and Sub-Saharan Arica, still relied on combustible fuels and traditional biomass (such as coal, kerosene, wood, crop waste, animal dung, agricultural waste) for cooking, heating and household energy needs (UN Women 2018; UNEP 2016). The amount of pollution coming from non-renewable energy production has harmful consequences for human health as well as ecosystems and biodiversity, (including through on-site pollutant releases and releases of airborne particles when fuels are burned). These environmental risks are not experienced and distributed equally across societies. Indeed, the exposure to these contaminants intersects with many factors such as class, race, age and geographical location and also with gender, magnifying disadvantages. (Gochfeld & Burger 2011) According to the report on gender equality in the 2030 agenda, across 92 countries 64 percent of households rely on solid fuels and other unclean fuels such

as kerosene which are treated using inefficient technologies (e.g. leaky stoves, open fires), this, in turn, contributes to high levels of air pollution within and outside the household. As mentioned before, many households in rural settings use solid fuels for cooking and heating purposes. Amongst the higher numbers, we find sub-Saharan Africa and Oceania, which respectively employ 85.7 per cent and 86.2 percent of solid fuels for domestic use. In these contexts, women are those who spend more time cooking than men, and in the case of hazardous fuels and stoves they are more exposed to toxic smoke from cooking with solid fuels and to physical burns. The health impacts stemming from unclean fuel consumption and production are indeed unevenly experienced by women and children who usually spend more time at home. Indeed, the health dimension of energy use and production are highly gendered due to women's and men's differences in energy use and exposure to related emissions (UNEP 2016). Cooking and heating with solid fuels produces high levels of indoor air pollution, especially particles leading to a variety of child and adult diseases, making it a major environmental health concern (WHO 2015). According to the World Health Organization, the exposure to household air pollution from biomass burning kills nearly 4 million people per year. At the same time, millions more suffer from cancer, pneumonia, heart and lung disease, blindness and burns, while smoke from cooking fires is associated with cataracts. Evidence suggests that the premature deaths of more than 2 million women and children annually due to dependency on households polluting fuels are directly linked to use of solid fuels for cooking and heating. (WHO 2014; GACC 2013) Moreover, in 2012, indoor air pollution caused 4.3 million premature deaths, with women and girls accounting for 6 out of every 10 of these. Solid fuels are often burned in inefficient open fires and basic stoves with inadequate ventilation that expose family members, especially women and children who spend longer hours indoors, to toxic smoke and physical burns. The cumulative effects are manifested in respiratory infections, lung inflammation and cancer, low birthweight, cardiovascular problems, and cataracts.

In addition to the adverse health effects associated with indoor air pollution, there are other harmful and disproportional consequences due to the reliance on solid fuels because women and girls. As the primary collectors of solid fuels such as firewood, they spend a significant amount of time collecting it and are forced to travel longer distances when other energy resources are scarce or unavailable. In fact, considering socially constructed gendered social norms present in many rural societies, and according to specific regions, women and children bear a major share of the unpaid work needed to collect biomass fuels. For example, depending on the region, season, and availability, average biomass collection time in Africa is estimated to be four to ten hours per week (UNEP 2016). At the same time, UN Women reports that girls in households that use solid fuels for cooking spend 18 hours a week on average gathering fuel, compared to 5 hours a week in households using clean fuels.

Besides being significantly time-consuming, fuel collection is also particularly dangerous for women, especially in conflict settings, making them more vulnerable to harassment and sexual violence when they leave their communities or refugee camps. As the UN gender equality report (2018) makes known, a recent study has estimated that in 22 African countries, women and girls spend an average of two hours each day just collecting fuel. This heavy task puts them at risk of injury, animal attacks, and physical and sexual violence and also hinders girls' education and leisure time. What is more, always according to the report, on average, a woman in Africa has to carry 20 kilograms of fuelwood five kilometres per day; this entails long-term health problems related to heavy load carrying. The practice of fuelwood fetching has harmful effects on the environment too. When fuelwood is unsustainably harvested, it contributes to forest degradation, deforestation, and loss of biodiversity. This holds even if deforestation has many other and often greater causes such as industrial logging, commercial charcoal production and large-scale conversion of land into agricultural and other uses. Thus, the use of dirty solid fuels also contributes to harmful emissions of carbon dioxide and black carbon, a driving factor for global warming and regional climate disruption.

1.7 Gender and the disruption of the marine ecosystem

According to the 2019 Special Report on the Ocean and Cryosphere in a Changing Climate, the global ocean has warmed relentlessly since 1970 and has taken up more than 90% of the excess heat in the climate system. In addition, the experts report that since 1993, the rate of ocean warming has more than doubled; marine heatwaves have very likely doubled in frequency since 1982 and are increasing in intensity. What is more, by absorbing more CO_2, the ocean has undergone increasing surface acidification. It has been calculated that the percentage of anthropogenic CO_2 emissions which has been absorbed by the ocean since the 1980s is around 20-30%. The impacts of climate change, such as sea level rise, flooding, erosion, and other impacts of climate change are already displacing millions of people globally. Sea level rise is particularly problematic for coastal communities because its impacts translate into lost livelihoods, property damage, forced migration and a variety of human rights violations (UNEP 2016). Indeed, coastal communities are particularly vulnerable because, due to sea level rise, saline waters contaminate coastal freshwater. In turn, water contamination impacts the livelihoods of coastal communities already suffering from chronic water shortages and directly or indirectly causing adverse health impacts. This also triggers forced migration not only of human beings- it is predicted that 187 million of people could be displaced by 2100 due to climate change- but also that of animals as a response of changes in the physical and biological components of the marine ecosystems (UNEP 2016). Indeed, according to the IPCC report (2019), since 1950, due to

ocean warming, sea ice change, human activities, and bio-geo-chemicals changes in their habitats, many marine species have experienced shifts in season activities and geographical areas. The alteration in species and ecosystems compositions and interactions has resulted in a cascade effect. In addition, since the mid-20th century, many human communities living in the Arctic, in high mountains areas, coastal environments, and islands, have been profoundly affected by ocean warming, sea level rising, and cryosphere shrinking. This is of major concern for incomes, food security, water resources and quality, health, well-being, and migration patterns (UNEP 2016; IPCC 2019). There is evidence that environmental change affecting marine systems has gendered impacts since, once again, women and man experience these changes differently. According to the World Bank (2012) women comprise 47 per cent of the total global fisheries workforce if the entire fishing cycle is considered. Women make up the majority of the workforce in post-production fishery activities (e.g. processing and selling), but most importantly, even though responsibilities vary depending on different locations, women are in charge of household nutritional security (UNEP 2016). Thus, when fish resources are scarce, women are obliged to renounce to nutrients, opting for other food supplements, or take on additional job considering that they have fewer coping mechanisms and financial assets to face these challenges (Ibid). Moreover, it has been documented that in some regions of Africa and Sri-Lanka, in the event of fisheries collapse, women undertake transactional sex so to compensate for income loss (Béné & Merten 2008). This phenomenon has been termed "fish-for-sex" transactions and refers to those arrangements between female fish traders and fishermen in which the former engage in sexual relations with male fishers because they are unable to secure food thresholds for their families. Béné and Merten, observed that this is due to the economic impoverishment of female fish traders which are often widowed, divorced, or single. This type of practice is frequently compared to prostitution, say the authors. As it is easily predictable, it leads to stigmatization and social exclusion also due to the explicit direct link between these unprotected sex practices and the spread of HIV/AIDS. Thus, declining catches create pressures on women who, either decide to trade sex for fish or are blackmailed by fishermen who are in stronger economic and social positions. Besides harmful health consequences deriving from the spread of diseases, women experience other health problems in relation to freshwater contamination in coastal areas. Indeed, drinking water salinity is a significant determinant of high preeclampsia rates and gestation hypertension in pregnant women (UNEP 2016). Moreover, evidence suggests that gender differences are also present in the exposure towards plastic and chemical components ingested by fish which are then transferred from the food chain to humans. For women, the risks associated with the ingestion of these substances result in breast cancer and reproductive disorders. Moreover, the ingestion of methyl mercury (a heavy metal found in marine systems due to land-.based industrial

emissions, coal burning and mining processes), which in humans is a heavy neurotoxin, has special implications for women resulting in foetal exposure and neurodevelopment problems for the new-borns (UNEP 2016).

1.8 Gender and Climate Finance

Climate finance is an umbrella term which encompasses public, private, philanthropic sources of financing towards climate change actions, such as mitigation and adaptation actions; finance flows can be local, national, or transnational. The term also refers to the financial mechanism established under the United Nations Framework Convention on Climate Chane (UNFCC) which structures the way in which these funds are distributed, and which also serves the Kyoto Protocol and the Paris Agreement. The international climate finance regime has been built in accordance with the principle of "common differentiated responsibility" and "polluter pays" principle, mirroring the recognition of different countries' contributions to climate change and their capacity to cope with its consequences; in this sense, climate finance has been projected to favour the less endowed and the more vulnerable countries and populations (UNCC 2020). In other words, it comprehends all the financial flows that come from developed countries to developing ones. The public sector financing institutions for climate action are mainly four; three of them are formally part of the UNFCC financial mechanism, while the World Bank administers the fourth. These are respectively the Adaptation Fund (AF), Green Climate Fund (GCF), Global Environment Facility (GEF) and the Climate Investment Funds (CIF). However, what is the nexus between gender and climate finance? From the previous discussion, it stands out that climate change affects women and men differently because women tend to be more reliant on natural resources due to their traditional roles and household responsibilities. Indeed, uneven political and socio-economic opportunities and power inequities often make women disproportionately vulnerable to climate change impacts. Thus, as already mentioned in the previous paragraphs, women are less likely to get credit to buy drought-resistant crops and in land allotments, they are more likely to be allocated marginal lands that are at higher risk of climate impacts, such as flooding or downpours (UNDP 2013). According to Women's Environment and Development Organization (2019) by December 2018, the aforementioned public funds had an explicit gender policy and/ or gender action plan, a gender specialist focused on the implementation of the policy and/or action plan, and increasing accountability mechanisms integrating gender equality principles. However, despite already present degrees of gender sensitivity, these mechanisms still lack adequate engagement paths to provide sustainable participation at the grassroots level for women's organizations, advocacy groups, or individuals. Indeed, as highlighted by the WEDO report Women's

organisations and climate finance, accessing, and engaging with the funds still holds many challenges for women's organisations. These challenges are systemic and include: the complexity of accessing climate finance, lack of meaningful support at community level to access funds, the problem of language barriers for remote rural communities (e.g. English as *lingua franca* for climate finance communications), inability to access timely information and national bureaucracies that discourage women from trying for climate finance opportunities (Oxfam 2019). This is due to the fact that when the current climate finance architecture was designed, it was oriented towards large-scale projects, meaning it's construction was marked by a lack of alignment between local, national and international levels, which did not take into account local stakeholders or grassroot organizations (WEDO 2019). Indeed, WEDO argues that women's organizations are often small grassroots organizations which have structural limitations in terms of human resources and operational capabilities; due to their smaller scale, they have limited engagement possibilities in the financing mechanisms. What is more, a recent analysis from the OECD (2016) revealed that climate finance trends are not gender sensitive enough. Indeed, only 3% of climate finance from DAC (Development Assistance Committee) members – a forum made up of 30 majors donor countries in the world - specifically addressed gender equality as a primary target, while the remaining 28% integrated gender equality as a secondary afterthought. Moreover, the analysis reported that financial support for locally led gender and climate action has also been held back behind, with fewer resources dedicated to funding for women-based civil societies (CSOs) in developing countries. The OCED (2016) found that only 2% of all gender-responsive climate aid was channelled to southern based CSOs in 2014.

Another effective tool for climate change adaptation is microfinance, which refers to the provision of financial services, such as small loans, saving accounts, insurance, and money transfers, to customers that lack access to traditional financial services usually due to poverty. More generally, microfinance is the extension of small loans to the very poor, in combination with other financial services such as saving facilities, training, health services, networking, and peer support. According to the Conversation (2017), microfinance has proven to be a strong development tool in providing sustainable, tailored financial services for a vast number of the poor, particularly women. Indeed, the online newspaper reports that by 2013, 3,098 microfinance institutions had reached over 211 million clients, 114 million of whom were living in extreme poverty. Of these, 82.6% (94 million), were women. This data is confirmed by the UN Women (2019) which reports that women and girls make up the majority of the world's poor. Indeed 330 million women and girls live on less than $1.90 a day (4.4 million more than men) while there are 122 women aged 25-34 living in extreme poverty for every 100 men of the same age group. Microfinance is an important tool for enabling poor women to reach financial independence by engaging in income-generating activities which might strengthen

their decision-making power within the household and society. Indeed, according to the Conversation, microfinance has great potential to reduce gender inequality. This has been confirmed by their study from data analysing 64 developing countries between 2003 and 2014, which examined the general international trends and patterns on gender inequality and microfinance. The results provided evidence of a negative relationship between women's participation in microfinance and gender inequality, which meant that gender inequality potentially decreases when women's participation increases. Indeed, it was proved that in the average developing nation, an increase in microfinance by around 15% corresponded to a decline in gender inequality by about half. However, the study also revealed that this correlation was biased by cultural characteristics and local practices that determined the relationships between men and women, such as women household responsibilities which prevent them from fully adopt employment opportunities through microfinance-generated investments. Concerning this, also UN Women (2019) noted that due to these entrenched socio-cultural systems, women face the negative stigmatization when they decide to leave their home for pursuing professional activities. So, given the differences that women and men have in adaptive and mitigative capabilities, financing instruments and mechanisms should reflect these differences and take them into account in funds designing and operationalization as well as concrete project financing. Indeed, there is widespread agreement that work remains to be done in engendering the larger global climate finance regime (UNDP 2013; WEDO 2019; Oxfam 2019). In fact, if properly designed and executed, climate financing mechanisms aimed at empowering women and promote gender equality have a double potential to make climate change responses more effective and, simultaneously, improving women's lives. Evidence shows that gender-sensitive finance regimes are likely to be more effective as gender equality and empowerment of women generate more productivity, socio-economic development, environmental sustainability, and increasing results in adaptation and mitigation efforts towards climate change (UNDP 2013). According to the UNDP, if projects that reduce the walking distance to access energy sources, water and sanitation, or projects that promote reforestation and sustainable forest management, receive funds, this will benefit sustainable environmental practices and also decrease the negative effects of environmental change and deterioration on women and girls. In the same way, funding women-headed households that have lost their homes to disaster events will support adaptation and recovery efforts and minimize stresses on the environment caused by refugee populations. If the global finance architecture continues to aliment gender biases and differences in access to assets and credit, time use, and in treatment by markets and formal institutions (including legal and regulatory frameworks) women's opportunities will remain profoundly constrained. It is of pivotal importance to recognize the urgent need for adequate, gender-responsive climate finance in addressing climate challenges. However, it is also fundamental to recognize that women are powerful

agents of change, not simply victims of the system. Indeed, women's traditional roles, and the knowledge stemming from it, puts them in a position that can be utilized to identify effective adaptation and mitigation strategies. Adaptation and mitigation efforts that ignore the scope of women's potential fail to achieve their maximum potential and effectiveness. Nevertheless, for such strategies to be at their finest, it is required that women have decent, fair access and control over their financial resources.

CHAPTER TWO

2. PHILOSOPHICAL ENVIRONMENTAL THEORIES: THE HOMO SAPIENS AND THE ENVIRONMENT

2.1 Introducing Environmental Ethics

Western Environmental philosophy is rooted in environmental ethics, a philosophical discipline that was born in the early 1970s to investigate the moral relationship between human beings and the environment, including non-human animals, their value, and moral status. It did so by challenging traditional western environmental ethics and its human-centred approach, which attributed intrinsic or higher value to human beings than to non-human things (SEP 2015a). Attributing intrinsic value to non-human things means considering their value as non-instrumental, as having an end in themselves regardless of their utility or means to other ends. Thus, the possession of intrinsic value in themselves, makes non-human things morally valuable and "generates a prima facie moral duty to protect it or at least refrain from damaging it" (SEP 2015a). Many environmental philosophers consider Aldo Leopold as the first genuinely environmental ethicist. Indeed, in his essay "The Land Ethic" published in his book A Sand Country Almanac (1949), he argued that "a land ethic reflects the existence of an ecological conscience, and this, in turn, reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity", and again that "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise". As mentioned before, the critic of traditional anthropocentric western ethical perspectives has been the focus of environmental ethics. However, the study of the moral relationship between human beings and the environment has evolved in various theories. It now covers a significant number of different positions according to which philosophical lens is adopted. Indeed, some, such as feminist theories, have shifted the focus from the *Anthropos* ("humans") to the *Andros* ("men"), arguing that environmental degradation results from human exploitation of nature, which is a manifestation of the oppression of women in male-dominating culture. Some feminists do not endorse an androcentric or patriarchal oppressive structure framework. However, they still maintain that anthropocentrism is responsible for environmental degradation. On the other hand, some authors debate on which kind of non-anthropocentric outlook one should adopt to consider the moral value of the environment. This chapter will cover feminist environmental ethics and some aspects of contemporary environmental ethics. More precisely, concerning the former, it will describe and provide critical reflections of different ecofeminist perspectives on the relation between women and

nature. These are: the care ethical theory, the materialist theory, the spiritual-cultural approach, and the epistemological, linguistic, and vegetarian perspectives. On the other hand, the chapter will cover other contemporary environmental, ethical theories. It will demonstrate how different theories adopt distinct non-human centred approaches depending on their consideration of the environment as intrinsically or instrumentally valuable. Indeed, these theories show different possible philosophical approaches to not human-centred ethical theories. More precisely, it will deal with Arne Ness' deep ecology theory which, contrary to other perspectives, focuses on ecological wholes such as species, populations, biotic communities, and ecosystems and sees in these collective entities the only locus of intrinsic value. Moreover, the deep ecology theory has significantly informed the ecofeminist debates. In fact, the chapter will conclude by exploring the major feminist critics aimed at it.

2.2 Outlining Feminist Environmental Philosophy

"Nature is a Feminist Issue", is the slogan of feminist environmental philosophy which stems from the claim that through the understanding of environmental issues it is possible to understand how and why women's oppression is connected to the unjustified exploitation of nature (SEP 2015b). The previous chapter has demonstrated how and why women disproportionally bear the adverse impacts of climate change, more generally. The data reported in the previous chapter show that problems such as deforestation, pollution due to the use of dirty fossil fuels, the disruption of the marine ecosystem, natural disasters, water pollution, and the decrease in agricultural yields bring significant consequences. This is true especially for poor, rural women in less developed countries due to their productive and reproductive roles and responsibilities in the households. Thus, bringing light on these issues helps us understand how women's socio-political-economic status is interconnected to contemporary environmental problems. Western environmental philosophy and Feminist environmental philosophy reject the positions held by canonical Western philosophy tradition which roots on (a) a strong commitment to rationalism, making humans superior to non-human animals and nature; (b) a conception of humans as rations beings, who can engage in abstract reasoning; (c) a conception of the moral agent and the knower as impartial, detached and disinterested; (d) a belief in dualisms: reason vs. emotion, mind vs. body, culture vs. nature, absolutism vs. relativism, objectivity vs. subjectivity; (e) an assumption of the existence of an ontological divide between humans and non-humans; and (f) the belief in a universal criterion for assessing unique epistemological principles and ethics (SEP 2015b). Western environmental ethics, both feminist and non-feminist, then assume the opposite of what canonical philosophy argues, namely that non-human animals and nature do have moral relevance and thus humans are responsible and morally obliged towards them.

2.2.1 Ecofeminist philosophy: is Nature a Feminist issue?

Why is the environment a feminist issue? What is the relationship between women and the environment? What are the links between the domination of nature and the domination of women? Moreover, why is it important to recognize these connections? These are some main questions that lay at the heart of the ecofeminist philosophy. However, before starting to discuss it is important to highlight that as there is no single philosophical stand for feminism, the same holds for ecofeminist perspectives. Indeed, in ecofeminist theories, both feminist and environmentalist instances converge. For this reason, as there is no single kind of feminism or a single type of environmentalism or ecology, it might be more appropriate to speak about the different current perspectives in the plural "eco-feminisms." Ecofeminism emerges as a distinct philosophical position in the late 1980s, early 1990s. Originally, the term 'ecofeminism' had a general meaning, indicating the multitude of women-nature connections and the complex set of theories and doctrines, elaborated especially in the Anglo-Saxon cultural contexts, in which converged both feminist demands and ecological demands. The term ecofeminism appeared for the first time in 1974 in a writing by French feminist Francoise d'Eaubonne, '*Le féminisme ou la mort.*' The author focused on the environmental costs of development and identified women as the subject of change, capable of using their potential to bring about an ecological revolution (SEP 2015b). As a branch of feminism, it relies on the concept of gender to investigate the links between humans and the environment, conceived as the natural world. Generally, ecofeminist philosophy has three objectives, namely: (1) to explore the nature of the connections between the unjustified dominations of women and nature; (2) to critique male-biased Western canonical philosophical about women and nature; and (3) to create alternatives and solutions to such male-biased views. However, one might fall into deception, thinking that ecofeminist theories argue that women should be in a more favourable position of power. Indeed, ecofeminists seek to achieve an egalitarian society in which no dominant group exists (Zein & Seitiawan 2019). Amongst the most influential scholars on ecofeminism we find the American philosopher Karen Warren; in her book 'Ecofeminist Philosophy', she describes ecofeminism as a critical project, with the objective of dismantling the interconnected forms of domination, and oppression of women. She puts at the very heart of her critical ecofeminist thinking the elimination of all forms of domination. In her own words: "the basic starting point of ecofeminist philosophy is that the dominations of women, other humans, and nonhuman nature are interconnected, are wrong, and ought to be eliminated" (Cuomo 2012). According to Warren, only through understanding the androcentric domination of nature – note that the reference is to the *Andros* rather than to the *Anthropos* – is possible to get a real picture of gender oppression and nature exploitation. That is because the "woman" and "nature" are not fixed and ahistorical concepts, instead they are socially and culturally constructed. She argues that ecofeminism

is not just a philosophical view about power structures in society; it is also an ethical tendency and a political movement. The common thread which unites the various authors in ecofeminist philosophy is the conviction that life on earth is a network of interconnections and that no natural hierarchy exists. Rather that such hierarchy is the result of humans' projection onto nature, which is used to justify oppressive forms of domination: sexual, social, racial, and so on. Despite the diversity of approaches, the interest of the various authors has been directed to the general conceptual framework which justifies all these forms of oppression: "patriarchy." Conceptually, the framework in which these relations occur, is an oppressive one that is functional to explain, maintain and justify institutions, relationships, and practices of unjustified domination and subordination. When such oppressive conceptual framework is patriarchal, it justifies women's subordination (SEP 2015b). Patriarchal conceptual frameworks characteristics are hierarchies and oppositional dualisms, such as high vs. low, male vs. female, mind vs. body, culture vs. nature, reason vs. emotion, action vs. passivity, universal vs. particular, freedom vs. necessity, civilized vs. primitive, public vs. private, subject vs. object. While the first terms are associated with men and are considered valuable, in contrast, the second terms are associated with women and are de-valued. According to Warren sexism, racism, classism, hetero-sexism, and ethnocentrism are what she defines unjustified "isms of domination," and they have five common features. The first one is the value-hierarchical, Up-Down thinking according to which what is "Up" has greater value than what is "Down"; this mirrors canonical philosophy's hierarchical thinking which opposes men as Up and women as Down thus putting men in a superior and more valuable relation towards women. The second feature is the oppositional and mutually exclusive value dualism, which opposes male versus female and culture versus nature. It ascribes greater value to what identifies with males or culture rather than with females or nature. It basically argues that it is better to be male or culture-identified than to be female or nature-identified (SEP 2015b). Power and privilege, conceived as systemic advantaging the Ups over the Downs, are the third and fourth features of an oppressive conceptual framework. Finally, the fifth feature is the "logic of domination," which is the most important feature in philosophical terms. Indeed, it is the moral proposition that justifies the oppressive relationship between the superior and the subordinated. Thus, these oppressive, patriarchal conceptual frameworks establish conceptions of power and relationships of domination and perpetuate the dichotomic dominations of women and nature. However, as specified by Plumwood (1993), dualism is not just a dichotomy or a hierarchy, which can be contingent and surmountable. Dualism is a way of thinking that makes equality unconceivable. Thus, a dualist relationship is one of separation and domination characterized by the radical exclusion of one of its components, and it is not open to change. Religion, philosophy, science, cultural symbols, social models, sexual norms, education, and the economy all reflect this logic of power and

domination that situate men's existence in the foreground while putting women in the background. From the liberal distinction of the public versus the private, ecofeminism argues that men's world has been constructed on the opposition between the natural world and women. Thus, being a man means dissociating oneself from the feminine world and from what it represents, meaning: weakness, care, inclusion. Then, masculinity is achieved through the opposition to the real world of daily life, fleeing from any contact with the female world of the home environment, towards the male world of politics or public life. What lies at the very heart of oppositional dualism is the experience of these two oppositional worlds.

2.2.2 The Care-Ethical perspective

Ecofeminism emphasizes the interconnectivity of all forms of life. However, ecofeminism also offers an ethical theory based on the values of motherhood and care. Scholars who proposed care-related perspectives on the human relationship with nature, particularly value women as mothers in their caring, nurturing, and subsistence roles. They suggest so because they suppose women have a "sense of compassion, responsibility, and connection towards their environments, which in turn leads them to take action to preserve and repair them" (MacGregor 2004). Ecofeminist care perspectives focus on the celebration of caring because it produces an alleged superior awareness of the process of environmental degradation. In this sense, women are considered as determinant in solving the ecological crisis. However, this perspective on women as earth-carers raises essential implications. For example, it runs the risk of romanticizing the idea that women have an alleged greater closeness to nature, and it further exacerbates their exploitation based on their care duties in masculinist and misogynist cultures. Celebrating women's caring as a moral responsibility and an instinctual predisposition seems incompatible with feminist objectives because it reduces women's concern for the environment to their maternal feelings (MacGregor 2004). This emphasis on the symbolic role of motherhood, which reassesses women in their traditional roles after centuries of struggles for gaining civil and social rights, seems to be quite an anachronist approach to the issue of gender equality. The main danger that such motherhood centrality poses to women's role in contemporary societies is to re-confine them into the four walls of the home environment, therefore equalizing them to the instinctual aspect of the natural world while removing them from culture. Moreover, women's maternal role is often associated with their involvement in environmentalist activism; this motherhood environmentalism, makes women's concern about nature some translation of their instincts towards home and family. This 'eco-maternalism', as defined by MacGregor (2010), translates in different hyperfeminine approaches to environmentalism. These approaches monopolize

women's role in the private sphere with a tremendous amount of responsibility in tackling environmental degradation, such as making good and responsible choices in the supermarket or recycling in the household. Indeed, women are often targeted in the private sphere according to an alleged "gender script" (Ibid), which tells them they are better placed to solve the problem at home through their social reproductive roles instead than at powerful positions in governments and institutions. These approaches further exacerbate gender injustice, do not promote gender equality, and feminizes environmental responsibility like it is an exclusive feminine dominion. This narrative only focuses on women and ignores men in the bigger picture; it will follow that men are disempowered in gender relations in the environmental sector. Indeed, even though women are disproportionally affected by environmental crises, this does not exclude the other fact that "gender" does not stand only for "women". In fact, even if they benefit from gender inequalities, men live their lives in relation to the ways in which power, gender, race, and class are articulated (Fletcher 2018). However, the major criticism addressed to ecofeminism is perhaps its essentialism. Indeed, ecofeminism demonstrates adherence to rigid dichotomies, among others, between men and women. For this reason, critics point out that the dichotomy between men and women, culture, and nature creates a dualism too rigid and too focused on differences. In this sense, ecofeminism correlates too strongly the social status of women with the social status of nature. In doing so, it further exacerbates the difference between men and women, rather than adopting a non-essentialist view according to which women together with nature have both masculine and feminine qualities, and that just as feminine qualities have often been seen as less worthy, nature is also seen as having less value than culture. Other critiques focus on the mysticism of ecofeminism, arguing that the very focus of their work has been disproportionally on the "mystical" connection between women and nature rather than on the actual conditions of women themselves. Besides, there are also divergent views on women's participation in oppressive structures. Indeed, mainstream feminism strives to promote equality within the existing social and political structure, by making it possible for women to hold positions of power in business, industries, and politics, using direct involvement as the primary tactic to achieve equality. On the contrary, many ecofeminists oppose active engagement in these areas, as these are the same structures that the movement wants to dismantle.

2.2.3 The Materialist perspective

Concerning the participation of women in oppressive structures there is another common ecofeminist dimension called materialist ecofeminism. This ecofeminist perspective, also referred to as socialist ecofeminism or Marxist ecofeminism consistently draws on a Marxist-informed rationale and focuses on the socio-economic conditions of dominations of women and nature. A materialist vision, links institutions such as power, property, and labour as sources of dominance over women and nature. These links are due to the productive and reproductive roles of women. One of the main exponents of this ecofeminist philosophical branch is Mary Mellor (2000), who argues that women and men do not identically mediate between culture and nature and that this is due to the "capitalist patriarchy" which refers to the Marxist notions of the means and forces of production which are predominantly owned by men. Indeed, materialist ecofeminism is based on the assertion that "sex/gender inequality is not a by-product of other inequalities but represents material relation of inequality between dominant men and subordinate women" (Mellor 2000). This inequality is reflected in differences in ownership in raw materials, land, energy resources and factories, machinery, technologies, and general working skills. Thus, women find themselves in a systemic economic disadvantage due to a male-biased allocation and distribution of the economic resources in society. More specifically, materialist ecofeminist is based on two central concepts: mediation and immanence. Regarding the first concept, mediation, Mellor argues that women are materially placed between 'Man' and 'Nature', and that gender mediates the relations between humans and nature. Without acknowledging this gender mediating relation, an environmental ethic between humanity and nature is not possible, says the author. However, what does mediation implicates? This concept requires both exploitation and exclusion and is defined as "making time, space, or resources for someone else" but it is not only performed by women since societies are not starkly cleaved into mediators and mediated. Indeed, the network of mediation embraces many people according to their 'race,' gender, class, or ethnicity. For example, western women are often the beneficiaries of mediation, even though they might mediate their biological time for their families, they do take advantage of others' time, labour and resources of the South and the Earth's sustainability. Notwithstanding the varieties of networks of mediation, Mellor (2000) points out that the most destructive ones are those in industrialized societies of capitalist patriarchy "that rests on a huge network of mediation through exploitation and exclusion: of women, of workers exploited or excluded on the basis of class, 'race,' through the expropriation of colonized lands and the exclusion of colonized peoples." It is not by chance that women are addressed as one of the colonies of capitalist patriarchy. On the other hand, immanence refers to women's position in gendered societies as embodying nature both materially and symbolically. In this contraposition, men are dominant and have a transcendent relation with nature because they claim

to be above it, while women are perceived and seen as immanent to nature, embodying it. Furthermore, she explains that the basic argument of materialist ecofeminism is that "western society has created itself against nature using the sex/gender division of labour (one) of its vehicles". According to the English scholar, a materialist ecofeminist approach does not identify women and nature as essentially affine, but it rather reflects the material analysis of the creation and the burden of male domination. Indeed, materialist ecofeminism rejects women-nature mystic relations as the basis of its thinking since women's identification with the natural world is nothing more than the evidence of the material exploitation of women's work (Mellor 2000). Indeed, in materialist ecofeminism, the biological and social dimensions are interconnected, and this interconnection is useful to explain the fact that women are not in more direct relation or more in proximity with nature because of an alleged physiological or either spiritual affinity but because of their social reproductive and productive roles by which they are defined and find themselves in. This is women's "material conditions in relation to the materiality of human existence." Indeed, it does not matter that women have specific body characteristics that do specific things. Rather, it matters how society accounts for these specific characteristics, for sexual differences; in this way materialist ecofeminism does not fall into the essentialist-naturalist trap.

2.2.4 The Cultural-Spiritual perspective

Another perspective on ecofeminism is cultural-spiritual theory, majorly represented by the work of Vandana Shiva, an Indian quantum physics and economist, considered the most famous theorist of social ecology. In her most important work, 'Staying Alive: Women, Ecology and Development', socio-economic conditions are central to her argument for "systematic underdevelopment" or "maldevelopment" (Shiva 1988), introduced by European colonizers through Asia and Africa. She strongly criticizes the new models of exploitation applied to the territory, brought by globalization because it modifies the balance of the vital cycles of nature. Her commitment tends to highlight two main visions of the world: Western vision, which exalts progress measuring everything in terms of profit; and the reality of rural communities in the Third World. The clash between these two realities, which could at first suggest greater benefits for poor people, increases poverty and causes serious environmental consequences. Shiva's premises in her book, describe the experience of Indian women, summarized in the "feminine principle" of nature and women, as producers of life, as *terra mater* (mother earth). The strong link between nature and women observed in Shiva's context, seriously endangers the female figure in the balance of poor countries' economies. The author traces a realistic analysis of the relationship between nature and women, describing how this relationship is changing

in India due to the choices requested by industrial development, choices made by a patriarchal social context. The exploitation of natural resources, forests, water, cultivated areas, has changed the economy of the Indian rural population which was supported by women's activities in harmony with nature itself; Shiva describes this exploitation as a source of violence because women depend on these 'natural' realities thus it results in violence against the female figure. The Indian scholar points out that modern science and industrial development, developed in the West, born in Europe with the scientific revolution, are patriarchal in origin and gave rise to industrial capitalism. The scientific revolution has transformed the earth and its inhabitants, into "machines" for the supply of raw materials. Indeed, for Shiva, the development proposed by Western countries, as cited above, is 'maldevelopment' because it is not real and sustainable since it makes people in poor countries bear the costs of alleged well-being, forcing them to give up the natural wealth of their country to foreign powers. Indeed, in late-independent countries, the development conceived according to the Western patriarchal model, did not include the female figure in its organization, so women do no weight because what really matters is having more goods to export, even if the local people will never be able to buy them. In this way, cultures, traditions, and social models are destroyed to make room for a competitive culture whose level of civilization is controlled by the market. According to Shiva, the greatest damage produced by industrial civilization (that is by Western models) was the equation of woman-nature and the definition of both as passive, inert, and equalized to raw material to be manipulated. The patriarchal development model declines nature as unproductive, and therefore, women linked to nature are in themselves unproductive. The type of development that Shiva denounces is one that considers natural forests a "unproductive until they are grown in monocultures for trade" for profits and capital. This development is devoid of conservative principles and that does not allow the renewal of natural elements. It is a maldevelopment that is synonymous with underdevelopment because it accentuates the diversity of the sexes, creates discrimination in social activities between men and women, destroys subsistence economies, and creates material poverty where there has been none with serious consequences also for the natural environment in which these populations live (Shiva 1988). Therefore, violence committed against nature is violence committed against women, which is based on the condition of the exploitation of resources, thus male dominance over nature and women. Contrary to the unfair and disadvantaged position in which rural women find themselves, Shiva asserts that they are the "depositaries of an original knowledge, derived from centuries of familiarity with the earth, a knowledge that modern science, masculinist and patriarchal, condemned to death." By thinking in a masculine way, the Western tradition differentiates culture from the binomial women-nature. Vandana Shiva argues that women have a special connection with the environment because of their daily interactions with nature. Men have ignored this connection

and, as a result, they have created a development "devoid of the connection to the feminine, conservative, and ecological principle". Indeed, Shiva states that women in subsistence economies are experts "in their rights to holist and ecological knowledge of natural processes" and stresses that such pieces of knowledge have not been recognized by the capitalist paradigm which has failed to perceive the interconnections of nature or the connection of women's lives and work with knowledge and the creation of wealth. This last aspect of Vandana Shiva's work brings me to another set of ecofeminist perspectives, namely ecofeminist epistemology. These epistemological perspectives enlarge feminist epistemology concerns and deal with how gender influences conceptions of knowledge and does it by showing the centrality of women-nature connections to these concerns (SEP 2015b). The ecofeminist epistemological claim basically argues that, as a matter of fact knowledge is gendered, and this is due to women's concrete daily experiences and interactions with the environment due to their productive and reproductive roles

2.2.5 The Language perspective

Furthermore, some theorists focus on the language perspective; they argue that the language we use reflects our view of the world and ourselves, or rather our conceptual framework. These philosophers believe that language becomes problematic because it creates concepts of women, animals, and nature that contribute to the exacerbation of the oppressive conceptual framework discussed above and justify the dominations of women, animals, and nature. In other words, according to the language perspectives, there are connections -symbolic ones- between sexism and naturist language; this language puts women and nonhuman nature down by naturalizing women and feminizing nature. For example, the English language often escribes women in animal terms with pejorative connotations (e.g., chicks, cows, bitches, pussycats, bunnies, whales,) while mirroring a sexist, patriarchal culture where animals are considered as inferior to humans, and women as inferior to men. Another aspect of the language perspectives focuses on the feminization of nature, as opposed to the masculinization of culture. Examples of such views are references to Mother Nature (which is not Father Nature) who is described in female and sexual terms: she is raped, mastered, conquered, mined, her (not his) secrets are "penetrated", her "womb" (men don't have one) is put into the service of the "man of science" (not female scientists or only scientists), "virgin timber" is felled or cut down, fertile (not potent) soil is tilled, and land that lies "fallow" is "barren" (SEP 2015b). These examples, according to these perspectives, suggest a feminization rather than a masculinization of the exploitation of both women and nature, and that such exploitation is done by animalizing and naturalizing women rather than humanizing and "culturizing" them. Concerning such theories, in her book 'The Sexual Politics of

Meat' - which I will better explore later on - Carol Adams (1990) argues that the denigration of women through this naturalized language describes, reflects, reinforces and perpetuates the patriarchal system of domination and ignores that such dominations are not metaphorical but somewhat culturally analogous and socially accepted. However, one must bear in mind that claiming that only women are 'animalized' by this language would be false. Indeed, the English language also addresses men in pejorative terms, such as sharks, jackasses, toads, pigs. Also, claiming that all terms which refer to animals or nature are derogatory would be wrong as well; one might think to typical western culture's terminology such as eagle-eyed, busy as a bee, lion-hearted. However, these ways of saying are seldom used to described women. The real point which these perspectives want to highlight concerning women and nature domination is that within patriarchal contexts the very majority of the terms described above addressing women, and those used to depict animals and nature have a different function in respect to those reported for men: they operationalize the devaluation of women, animals and nature and they strengthen their unjustified dominations.

2.2.6 The Vegetarian perspective

When ecofeminism is applied to animal rights, it gives life to another ecofeminist theory: vegetarian ecofeminism. The term vegetarian ecofeminism embraces vegan ecofeminist theories and animalist feminist theories. According to Greta Gaard (2003), since its inception, ecofeminism has had a quarrelsome relationship with the idea of animal liberation. Indeed, while some ecofeminist authors have omitted animals-human relations from their work, others instead have emphasized the oppression of non-human animals, also called speciesism, as implied in the ecofeminist analysis. Vegetarian ecofeminists argue that speciesism works exactly like the other systems of oppression (e.g., racism, classism, hetero-sexism, naturalism) being deeply attached to them; by examining the political contexts of food choices, vegetarian ecofeminists implement the feminist intuition that "what is personal is also political" (Gaard 2003). The suffering that animals experience in industrial farms are well-acknowledged nowadays; according to these ecofeminist theories, vegetarians can transfer their compassion and empathy from the suffering of non-human animals to their food choices. Indeed, vegetarian ecofeminists argue that passing over animals' suffering nullifies our empathy towards them (Gaard 2003). Therefore, vegetarian ecofeminism aims to create an empathic connection between human experiences and other non-human animals' experience. The origins of these perspectives are to be found in the experience of solidarity for non-human animals, in the liberation theories and feminist activism movement of the 1960s and 1970s. Even though feminism can boast a long tradition of commitment to animal liberation movements and animal rights, for the purpose of

conciseness, the attention will be focused on one of the most famous authors of vegetarian ecofeminism, the scholar Carol J. Adams. In her book 'The sexual politics of meat,' Adams argues that understanding the reality of non-humans, analysing our food choices, and identifying connections between the oppressors and the oppressed is a moral commitment. According to the author, our food, culture, and societies are formulated around the concept of virility, the first expression of patriarchal politics. This androcentric paradigm which subjugates women and non-humans by animalizing the former and feminizing and sexualizing the latter. Also, Adams' assumption is anchored in the belief that this androcentric power controls access to food consumption, creating control over animals and women's bodies. All this produces a mythologization of male strength and a false assertion of female sexual freedom, attributable to male "consumption" of female sexuality. Adams further argues that this condition of exploitation is imprinted on non-human female bodies', exploited to produce milk and eggs precisely because of their gender and reproductive capacities. Indeed, the so-called "animal derivatives", what she calls the feminized proteins, are products of the reproductive function of "non-human mothers", exploited twice, as belonging to a lower species and as belonging to the "weaker sex". At this point, it seems proper to introduce an important concept from Adam's work, the concept of the absent referent. Through slaughter, animals become absent referents, that is they are made absent as animals so that meat can exist; the point is that through the transformation of animals bodies into meat, which presupposes the existence of meat, animals are made invisible from the act of eating meat because they have been transformed into food (Adams, 1990). Moreover, the term meat is mystified by Western culture and language, which contribute to the animal's absence with the use of gastronomic language, so we do not feel guilty or responsible for their death. In a nutshell, the absent referent is what allows us not to reflect on the fact that a cooked dead body has replaced a live animal. The most interesting aspect of Adam's work is perhaps the belief that women and animals are overlapping but absent referents. This is because both experience violence exercised upon their bodies. She argues that the structure of the absent referents has legitimized patriarchal values' institutionalization so that as animals are absent from our language about meat, in violence against women, particularly rape, women are often absent referents in the description of cultural violence. In fact, their experience often becomes a way to describe another type of oppression such as in the expression "rape" of Earth; when the language of violence is employed metaphorically, women who are raped become absent referent and it is not by chance that they often describe their abusive experiences saying they felt like a "piece of meat". In Western culture, the function of the absent referent is functional to translate real experiences of violence into controlled metaphors. This is also true in sadomasochistic pornography, which tools used for sexual arousal lure those used to control animals (e.g., dog collars, whips, and ropes). Thus, according to Adams, sexual violence and the act

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of eating meat are interconnected as they are two forms of oppression that share the common characteristic of being absent referents.

2.3 Different perspectives on Contemporary Environmental Ethics

As already explained in the introduction of this chapter, environmental ethicists want to keep the distance from canonical western ethical anthropocentric philosophy, which ignores the natural environment's moral status as non-intrinsically valuable. However, contemporary environmental ethicists do grasp from traditional ethical theories to elaborate on their theoretical frameworks. For example, this is the case for consequentialist and deontological approaches, which have been taken as frameworks in developing specific forms of environmental philosophy. Indeed, these two normative theories conceive values and rights in different ways, asking the following two basic moral questions: what kinds of things are intrinsically valuable, good, or bad? What makes an action right or wrong? However, in the discussion of what might be assessed as environmentally good or bad, they differ in terms of how they conceive the intrinsic value of non-human beings. If, on the one side, consequentialist thinking focuses on the promotion of the intrinsic value of states of affairs, on the other side, deontologist focus on the intrinsic values of entities that have to be respected. Thus, these two different conceptions of the notion of intrinsic value extend the fundamental argument between deontologists and consequentialists to somewhat modified form (SEP 2015a). However, is important to highlight that conceptions of the intrinsic values of non-human beings intended in different ways, depending on the normative approach, are based on individualistic moral concerns, that is they are directed towards individuals. Instead, other perspectives focus on ecological wholes such as species, populations, biotic communities, and ecosystems and see in these collective entities the only locus of intrinsic value. These theories, which we can define "ecological", condemn the individualistic approaches for failing to accommodate conservation concerns for ecological wholes. Many of these versions are based on Aldo Leopold's statement, "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise". What is more, many feminist environmental philosophers argue that in Leopold's opening line of "The Land Ethic" can be found a reference to gendered environmental ethics; indeed, the author wrote: "Odysseus's slave girls were property. The disposal of property was then, as now, a matter of expediency, not of right and wrong" (Leopold, 1949). In addition, ecofeminist philosophers such as Plumwood (1993) defends a consideration of the self as an ecological being, who lives in relation with other members of the larger biotic community. This is not a coincidence because the emergence of ecofeminist philosophy has been historically linked to deep ecology (SEP 2015b). However, as

this link was contested, the ecofeminism-deep ecology debate emerged. The following sections will briefly explore Arne Naess' "biospheric egalitarianism", which sees humans as metaphysically embedded in a bio-spherical net of relations, along with its major feminist critics.

2.3.1 Deep ecology

In the 1970s, the rise of ecological concerns revived interest for Leopold's 'land ethic' which, as previously expressed, focused on the need to develop an ecological conscience and individual responsibility towards the health of the land. On the basis lay by Leopold, the Norwegian philosopher Arne Naess, distinguished between shallow ecology, the traditional moral framework limited to the fighting against pollution and resource depletion exclusively for the sake human well-being, and "deep ecology", which instead focused on preserving the integrity of the biosphere for its own sake, notwithstanding the possible benefits that humans might gain from doing so. Naess characterized its environmental, ethical perspective as "biospheric egalitarianism". The term biosphere also refers to non-living things such as ecosystems, landscapes, or rivers. Moreover, deep ecology rejects the separation between humans and the rest of the world, adopting a "total-field image" of the world which considers "organisms as knots in the biospherical net or field of intrinsic relations"; this means that each organism, being intrinsically valuable, is constituted by mutual ecological relations with other living things (Naess 2005). It follows that also humans live in this net of relations; thus, if they conceptualize themselves in relational terms with the world, they will take better care of it and of nature in general (SEP2015a). Indeed, drawing from Spinoza's metaphysics, Naess's deep ecology rejects atomistic individualism, arguing that separating the human self from the rest of the world leads to selfishness towards other people but also towards nature. Thus, Self- realization means reconnecting the egoistic human individual with the wider environment (SEP 2015a). In addition, deep ecology emphasizes richness and diversity of life, as enhancing the value of human and non-human life on Earth independently of the usefulness for human purposes. Furthermore, he argues that anthropocentrism has detrimental consequences on the quality of men and women's lives because such quality depends in part on "the deep pleasure and satisfaction we receive from a close partnership with other forms of life"; so, to respect and to care for the environment means equally to respect and care for oneself since we are part of the environment and should identify with it. Naess defines his philosophy as an "ecosophy," meaning a philosophy of ecological harmony or equilibrium which sees human Self-realization as a solution to the environmental crises resulting from human selfishness and exploitation of nature (Naess 2006; SEP 2015a). However, Naess' biospheric egalitarianism has been criticized for being too elusive and indeterminate in its practical ends. For example, Singers argues

that showing the intrinsic worth in plants as a whole does not provide any explanation of the value of the individual micro-organisms and that the total field image proposed by Naess does not suggest that all its components have equal intrinsic worth. Thus, according to Singer, deep ecology fails to yield persuasive answers to the lives of individual living beings and might be more feasible to apply it at the level of ecosystems and species, according to a more holist approach, which considers species or ecosystems as entities in their own right (Singer 1993). Also, Naess's relational theory has been condemned by feminist critics such as Val Plumwood (1993) due to its potential justification of nature's exploitation "for one is presumably more entitled to treat oneself in whatever ways one likes than to treat another independent agent in whatever ways one likes" Moreover, Plumwood (1993) has criticized deep ecology's focus on anthropocentrism, arguing it " (…) has failed to observe the way in which anthropocentrism and androcentrism are linked" and that the failure to observe such connection "is the result of an inadequate historical analysis and understanding of the way in which the inferiorization of both women and nature is grounded in rationalism". Plumwood's point is that deep ecology has criticized anthropocentrism without considering its androcentric roots. Thus, according to the philosopher deep ecology is based on two false assumption, namely that anthropocentrism and androcentrism are two distinct and separate ways of thinking and that deep ecology critics the culture versus nature dualism without analysing how such dualism has historically justified the domination on both women and nature. The second critic raised by Plumwood (1993) is aimed at deep ecology's principle of self-realization, which claims that humans are embedded, merged with the cosmos. Plumwood asserts that this principle is basically false because it assumes "the discontinuity thesis", namely that humans, or more generally culture, are ontologically separated from nature. Because deep ecology does not deny the discontinuity between nature and culture, Plumwood assumes that it is a conceptually flawed environmental philosophy.

CHAPTER THREE

3. WOMEN, GENDER, AND CLIMATE CHANGE

3.1 Links between gender and the environment

Since the Earth Summit held in Rio de Janeiro in 1992, the feminist presence became intrinsic to the environmental agenda, and women's defence of nature and the environment became a fixed "storyline" within global forums. The assertion that women from the global South were the hardest hit by the increasing environmental degradation gained significant currency, and therefore women started to be acknowledged as the principal caretakers of the environment. However, the maxim linking women to the environment came under question by some feminist scholars. Their argument rested on the assumption that slogans that drew attention to women as the environment's victims and caretakers did not match complex and daily realities of power inequalities. Despite these stereotypes' critiques, women-environment linkages persisted in global discourses on the environment and climate change. The chapter is structured as follows. The first part will cover the existing links between gender and the environment. Specifically, the two popular strands that entered the environment-women discussion, namely ecofeminism from a Southern perspective and Women, Environment, and development (WED). Furthermore, it will be discussed the attempt to introduce the political claim for gender to enter the environmental agenda, which led to an oversimplification of women's identity as a one- dimensional category. This has limited the conception of women as a heterogeneous group and diverted the attention from the claim of the political space. In this regard, the evolution of the gender-environment link in climate change discussions will be briefly analysed. The second part of the chapter will analyse the connection between women's climate change vulnerability and poverty by questioning the "feminization of poverty" thesis. It will be argued that the dichotomy between vulnerable or virtuous women in relation to the environment presents a static conception of women's roles. The discussion will proceed by maintaining that the insistence on women's universal vulnerability, especially in the developing world, can have an opposite effect. It will be argued that this also denies them agency, constructing their vulnerability as their specific problem while reinforcing differences between women and men. The discussion does not intend to deny that women are vulnerable in a multitude of situations. Rather, it asserts that generalizing about it tells us little about the configuration of social relations of power in specific contexts or how the vulnerability is produced for other groups. In other words, it will be argued that a generalized belief in women's vulnerability silences contextual differences. The dismissal of gender primary to vulnerability and partly to virtuousness shifts attention from the problem that burdens both the North and the South,

and that is gender and power inequalities in decision-making in environmental management. Marginality needs to be viewed through the power relations that produce vulnerability in the first place since the specificity of vulnerability may differ. The chapter will conclude by highlighting the necessity to reconceptualise vulnerability and gender. Women need to be seen like men being responsible and as well capable agents in mitigating climate change without losing track of power relations involved, without being categorized as earth-carers from the South or taking the blame for the North's eco-sins. The analysis needs to go beyond the impacts experienced by vulnerable women and start to look at the ways in which gendered discourses create and perpetuate gender asymmetries. In this way, climate change policy might be framed through more inclusive, gender-sensitive discourses.

3.1.1 WED and Ecofeminism

Research on the connections between gender and the environment in the South began in Asia, stimulated by two main strands: "women, environment, and development" (or WED) and a specific variant of ecofeminism from a Southern perspective. Both advanced the assumption of natural connections between women and environmental resources. In these frameworks, rural women from the global South are acknowledged as the unrecognized caretakers of the environment, endowed with intrinsic care towards the Earth and its resources, which enables them to save Planet Earth for future generations. The former can be identified with Shiva's spiritual-cultural premise of the "ontology of the feminine as the living principle" that sees rural indigenous women as the original givers of life and, therefore, the rightful caretakers of nature (Shiva 1989). As already discussed in the previous chapter, the Indian scholar powerfully vehicles her message by arguing that "women are the repositories of an original knowledge, derived from centuries of familiarity with the Earth, a knowledge that modern science, masculinist and patriarchal condemned to death". Vandana Shiva states that women have a special connection to the environment because of their daily interactions with it, and this connection has been ignored. According to Shiva, women in subsistence economies who produce "wealth in collaboration with nature, have been experts in their right to holistic and ecological knowledge of nature processes". Thus, by thinking "masculine", the Western tradition has created a development "devoid of the feminine, conservative, and ecological principle". Unlike Shiva's spiritual-cultural ontological approach, the second strand, WED, followed a different logic, namely that women are adversely affected by environmental degradation because of an a priori and universal gender division of labour. Thus, WED's feminine ontology drew from more materialist assumptions. In the division of labour, women are usually assigned reproductive roles; this explains

their socially ascribed roles as primarily responsible for the collection of forest products and food for daily household subsistence. Policy planners automatically interpreted it as meaning that women had to be the primary targets in conservation projects due to their daily roles, which connected them more closely to natural resources. Thus, not surprisingly, the roots of WED thinking were associated with environmental disciplines such as forestry and agriculture in developing regions (Elmhirst, Resurreccion 2013). Indeed, research for policy planning started to focus on women, forests, and energy resources (FAO 1989). The body of research already described in the first chapter of this dissertation found women to spend more time in foraging and livelihood tasks such as collecting water, food, fodder, and fuel, which are increasingly endangered by deforestation and intensive monoculture agriculture. Thus, not surprisingly, saving nature became linked with women in the pursuit of sustainable development. Indeed, both women and nature traditionally shared a common claim for recognition and empowerment, as well as marginal importance in the development agenda. These compelling narratives also stemmed from organised movements of rural and indigenous women aimed at saving trees and hinder commercial loggers, destroyers of forests, and forest livelihoods. The Chipko movement comprises the main example of these grassroots organizations. In 1974, this forest-conservation movement, entirely composed of Indian rural women, took action to stop tree felling of indigenous forests. The women's protest was a non-violent agitation that managed to save 12,000 square kilometres of the watershed. The women involved in the protest threatened to hug the trees if lumberjacks attempted to cut them down, from this the name of the movement "Chipko", which in Hindi means "to embrace". Therefore, the movement showed the close link between rural women, in this case, those of Northern India, and the indigenous forests. They showed they were the "protectors" of their local natural resources, and thus the best suited for the management of natural resources, due to their daily practices and familiarity with their surrounding environment. In other words, it acknowledged women as the depositary of local indigenous knowledge. In the domain of environment and development discussions and policymaking, ecofeminism and WED evolved as characterised by strong materialist–essentialist linkages between women and the environment. This was so due to the fact that both shared the belief that experiences of the environment are differentiated by the differences in daily work activities and responsibilities of men and women. Following this rationale, men and women also differ in their interests in natural resource management through their distinctive roles, responsibilities, and knowledge. So, as Elmhirst and Resureccion (2013) note, gender is thus understood as a critical variable in shaping processes of ecological change, viable livelihoods, and the prospects for sustainable development.

3.1.2 Feminist entry in climate debates

The discursive strands of WED and ecofeminism strongly influenced the Rio conventions in 1992 and the Beijing Women's Platform for Action in 1995. Indeed, women's innate role as natural resource managers, endowed with special knowledge and skills in caring for the environment, appeared in many statements of the documents. To quote a few of them, the Rio Declaration specifies in principle 20 that "women have a vital role in environmental management and development", while the preamble recognises "the vital role that women play in the conservation and sustainable use of biological diversity". Furthermore, in Beijing (1995), the global framework recites "women, especially indigenous women, have particular knowledge of ecological linkages and fragile ecosystem management" and that "the meeting took note of the critical linkage between the environment changes and the role of women as natural resource managers and providers". Many critics have followed these assumptions and especially the use of 'women's roles' as somewhat fixed. The scholar Bernadette Resureccion (2013) reports some of the main critics. First, policy planning based on fixed roles might eventually be counter-productive for women because it risks treating them as "key assets" in resource conservation initiatives on the assumption of their caretakers' roles. Women, environment, and development translations in policy relies on simplifications of women's relation with the environment and natural resources, assuming their attributes as fixed and disassociated from social relationships of power structures. Second, WED and ecofeminism policy translations decontextualize women's position in environmental realities by overshadowing the institutional dynamics which lie behind complex social, gendered relationships. Three, WED and ecofeminism risk to "victimize" rural women from the South by conveying their images as walking longer distances in their daily households' tasks as resources are gradually depleted. Fourth, the attention posed to women's knowledge of the environment is not even analysed as deriving from a position of subordination, or as an obligation stemming from a systemic power structure. Finally, the fifth critical standpoint argues that women-environment linkage obliviates men's contribution to resource use and management from the bigger picture. Amongst the scholar who proposed a deviation from this fixed gendered pattern, we find Cecile Jackson. In her work, Jackson (1993) advanced a shift towards the analysis of the power relations existing between men and women so to treat women not just as a category but rather as a disaggregated group of subjects. Underneath this proposal lies the strong claim of the dynamic, social, and historical construction of gender roles. The common thread between the criticisms of women-environment discourses was the "intellectual unease with the idea of a centred feminine subject as the stable icon of feminist environmental advocacy" (Resurreccion 2013). In the attempt to muster a programmatic statement or to legitimise political involvement within the environmental arena, WED and ecofeminism put forward the view of one-

dimensional, fixed identity of women. This form of strategic essentialism has served the scope of advancing political claims in the public domain. In an interview in 1994, Judith Butler referred to this as the understanding of gender as a "fact", the translation of an ontological phenomenon, like is gender, into the environment or climate change negotiations. This entails the control upon a simplified conception of women's fixed identity as rural, poor, and vulnerable to environmental crisis to enter the political space. As gender entered development policy and practice, some aspects of feminist agendas were emphasized through story lines, fables, and myths. These discursive strategies were adopted to capture resources for policies to tackle gender injustice and to forge alliances with the plethora of development actors within development institutions (Cornwal et al. 2007). As Resurreccion (2013) notes, it is far more convenient for institutions to relate with women in terms of impacted victims. Indeed, women were presented as either agents of positive environmental action or as the hardest hit by environmental change while framing policy that addresses gendered relations of power within which women and men are embedded was ignored. Thus, development institutions proved their fallacy in conveying essentialist images of women, leading to the simplification of gender and development ideas in pushing for policy change in development. Despite this, feminists too felt the pressure to simplify and creating narratives about gender. As Cornwal et al. (2007) note, gender myths gave rise to feminist fables, and the "personal, as well as political, attachment to the idealized generalization about women encoded in feminisms' own gender myths has made it difficult for feminists to confront their implications". In other words, feminists embraced a simplification of identities and interest to enter the gender agenda into institutions that otherwise would have marginalized the problem. Despite the criticism of the theoretical premises and policy planning of WED and ecofeminism, these new discourses on climate justice and gender justice have been reinserted into the contemporary climate change agenda. Thus, the gender item in the climate agenda not only remained a marginalized issue but was persistently addressed as a matter of vulnerability to climate change. Indeed, as mentioned in the beginning, gender aspects have been poorly addressed in climate change debates. This is because those shaping the debates lacked gender sensitivity, and this led to a strong technical and economic bias in the contents, which is best shown in the Kyoto Protocol (Roehr 2007). The UN Framework Convention for Climate Change and the Kyoto Protocol are indeed the two most important treaties concerning the global efforts to combat climate change. In both documents, the words "gender" and "women" were rarely mentioned (Skutsch 2002). It is questionable whether the absence of reference to gender considerations in such documents matters at all given the fact that they are conceived to provide a general framework to discuss a generality of multitude issues. However, these documents do not even include notions of "poverty" or "deprivation", partially referencing to social and economic development. What is more, gender issues

did not seem to be included either in those specific areas where gender factors would be expected to be taken into consideration, such as climate change linkages with poverty. Besides the marginalization in official documents, social issues, and gender issues, do not either have a space in climate change discussions and process, by which is meant the debates surrounding the formulation of climate change policies. The prevention of mainstreaming of gender into climate change policies, as Roehr (2007) argues, is backed by experiences in the UN processes. Indeed, women's organizations are often not actively involved in the climate change process, and this entails that gender and women's aspects will not be addressed. Thus, this leads to a vicious circle in which women's organization or gender experts are not involved in discussions; therefore, women's or gender aspects are hardly addressed. Since these issues are not addressed, women's organizations do not take part. The United Nations Framework Convention on Climate was adopted in 1992 in Rio de Janeiro at the UN conference for Environment and Development (UNCED). The agreement adopted at UNCED established the Conference of the Parties (COP). Parallel to the first COP in Berlin in 1995, ran an international women's meeting. However, participation in this meeting did not result in the creation of a feminist political centre (Skutsch 2002). This was due to the meeting's agenda largely influenced by anti-nuclear demands, and thus the attention diverted towards demands for shifts in government investments and subsidies from nuclear and fossil flues towards renewable energy alternatives (Resureccion 2013; Skutsch 2002). At the 6th Conference of Parties to the UNFCCC meeting (CoP6), held in The Hague in November 2000, the gender issue was not a burning issue despite the fact that the spokespeople of the three major NGOs present were women, and that 20% of environmental ministers participating were female. The topic was briefly mentioned by the Chairman of CoP6, Jan Pronk, in an interview after the proceedings, who argued: "in developing country households, women are often the primary providers and users of energy. Therefore, the participation of women and women's organisations is crucial." (Skutsch 2002). Concern for gender issues did not appear in any subsequent UNFCCC agreements and treaties except for the need to include gender experts in the National Adaptation Programs for Action (NAPAs) among Least Developed Countries (LCDs) (Resureccion 2013). However, at the CoP7, in 2001, feminist advocacy finally achieved some results. At Marrakesh, the first stand-alone decision on enhancing gender balance and women's participation was adopted. Also, on this occasion, gender equality was established as a guiding principle for national adaptation programmes of action. More importantly, on the same occasion, a draft decision was reached on improving participation of women in the Parties representatives. The decision was proposed by Samoa and supported by Russia and the EU governments and called for more nominations of women to the UNFCCC and Kyoto Protocol bodies. What is more, the draft decision also tasked the UNFCC Secretariat with determining the gender composition of these bodies

and with bringing their results to the attention of the Parties (Resureccion 2013; Skutsch 2002). Despite these hopeful developments, the feminist agenda substantially remained at the curb of climate change discussions. Only in CoP13, held in Bali, Indonesia, an effective global network of organisations took form under Women for Climate Justice and the Global Gender and Climate Alliance, founded by UNDP, UNEP, IUCN, WEDO, which have over 25 (global) member organisations. This network of women leaders advanced a fundamental recommendation during the meeting: "recognise that women are powerful agents of change and that their full participation is critical in adaptation and mitigation policies and initiatives, and hence, guarantee that women and gender experts participate in all decisions related to climate change" (Gender CC 2008). Notwithstanding the unprecedented claim raised by this network, the entry points for gender analyses still referred to mitigation efforts in the North and vulnerabilities in the South (Skutsch, 2002). Thus, once more women's pictures as climate victims entered the climate debates. In this regard, Arora-Jonsson (2010) cites Roehr (2006): "the notion that women are most vulnerable victims of climate change and its impacts are what makes many negotiators receptive to women and gender aspects". Adaptation and vulnerability renewed WED discourses and were entry points for gender analyses and responsiveness, indicating women as a particularly vulnerable group. This idea of women as a vulnerable category has considerably grown within global and national climate change discussions. More fruitful results started to grow since 2009, when an official Women and Gender Constituency was formed under UNFCCC. These groups were formally constituted to put forward a definitive gender/feminist agenda to UNFCCC negotiations and meetings (Resurreccion 2013). In the following years, few other steps were implemented to render the climate policy framework "more gendered". In 2010, the CoP16 adopted the Cancun Agreements, which made references to a decision on a "Shared Vision" for climate action, which recognized gender equality and active participation of women as effectively important to all aspects of climate action. During CoP17, in 2011, decisions on finance and technology that included gender considerations were adopted. Instead, a second stand-alone decision on strengthening gender balance was made at COP18. Such a decision made gender a standing agenda item of the Conference of the parties. In 2014, the Lima Work Programme on Gender was adopted to provide knowledge and capacity building on gender-responsive climate policy. The decision taken through the Lima Programme was further expanded by three years at CoP22, while in 2017, the Gender Action Plan (GAP) was adopted aiming at emphasising gender balance and women's leadership, calling for additional funds to support women's participation (Burns et al. 2018). During Cop24 held in Katowice, Poland, despite it being 2018, gender was not included in the formal discussions on finance, mitigation, and adaption; it was rather discussed in the side events by civil society groups and activists who highlighted the need to incorporate gender and social issues into the

climate discussions and negotiation. What is more, the British Columbia Council for International Cooperation (BCCIC) reported that up to 2018, female representation at the UNFCCC Conference of the Parties remain consistently below 40%. So, although the road travelled so far, gender remained a side-line topic. Against all expectations, after two weeks of negotiations at CoP25 climate negotiation in Madrid, Spain, the Parties finally adopted a new 5-year Gender Action Plan (GAP), built upon the first. The new GAP's activities provide the opportunity to shift towards capacity building and enhanced implementation of gender-responsive climate action at all levels, reports the Women and Gender Constituency (WCG 2019). If one the one hand, this outcome has been applauded; on the other hand, the WGC recognizes that no effective progress will be achieved if the parties do not fully implement the Paris Agreement and that despite GAP importance as a tool advancing progress for gender equality and effective climate solution, real gender equality can be achieved only through bold climate action.

3.2 Vulnerable or virtuous?

As previously described, the idea that women constitute a vulnerable category has gained considerable currency in global and national climate change discussions. MacGregor (2010) refers to this as "the discursive categorisation of women in contemporary climate politics," which has its share of shortcomings. It has been widely argued that the consequences of climate change will disproportionally hit tropical countries in the South and will mostly affect the poor. This insight has led some to claim that women in the South are more vulnerable to the effects of climate change for several reasons. According to some, women represent a disproportionate share of the poor. Therefore, they are disproportionately vulnerable to the effects of climate change. More specifically, scholars who support this argument often note that women account for 70% of 1.3 billion people living in extreme poverty in the developing world (Denton 2000). The point is that women in rural contexts are generally poorer than men; thus, they rely more on the natural resources most threatened by climate change. However, there is another recurring theme in literature, which represents the "Northern" counterpart to women's vulnerability, that is their virtuousness. According to some, women are more sensitive to environmental risk and more likely to support pro-environment policies and measures (Neumayer & Plumper 2007, Buckingham et al. 2005; Agarwal 2009). This is also supported by other research in state environmentalism, which claim that nation-states that count a greater proportion of women in national Parliaments are more prone to environmental treaties ratification than other nations (Norgaard & York 2005). For instance, a European study conducted in the UK and Ireland on municipal waste management disclosed that in those towns where there was a

higher percentage of women in influential positions, the recycling rate was greater than in those towns where women participate less in decision-making (Buckingham 2010). The conclusion of the study is that the policies for waste management that did not pay attention to women's different attitudes and understanding were less effective than those that do acknowledge women's contribution. Moreover, in a study on gender equality as a prerequisite for sustainable development, Johnson-Latham (2007) presents different reasons why women live, both socially and ecologically, in a more sustainable way than men. According to her study, women leave a smaller ecological footprint and cause less environmental pollution. In examining "who are the polluters", the research points to gendered specific patterns which show in general that the polluters are often men, whether poor or rich. Johnson-Latham writes that instead of recognizing this imbalance as a fact when it comes to climate change, the attention is put on technology and technicians. These groups consist mostly of men who are portrayed as the solution to the problem rather than the problem itself. Moreover, based on research on transportation in Europe, Johnson-Latham argues that mobility has seldom been a part of women's history. Indeed, the scholar points out that men usually own more cars, and travel longer distances to work; thus they emit much more carbon into the atmosphere while for women, the alternative has frequently been to avoid transport or use the simplest and cheapest methods of transport (such as the bicycle or walking). However, the scholar also mentions that in modern times due to the improvement of women's sexual and reproductive rights, the picture has changed, and women's mobility has increased as both wage labour and participation in decision- making. So, men (not all men) are more responsible for the GHGs emissions produced than women are, or at least, than some women are. Thus, it follows that it would be mainly poor women who are the most virtuous in relation to the environment. Moreover, as Skutsch (2002) argues, the primary sources of greenhouse gases in the developed economies are the power industry, household use, and transport, followed by various industrial processes; it would not be difficult to show that the power and many industrial processes are managed by men, both in the North and in the South. These arguments about women's vulnerability or virtuousness and their predisposition to be more environmentally friendly resonate with women, environment, and development (WED) and ecofeminist debates which explicitly relates modern economies and their production processes to male-dominated culture, arguing that economies based on feminine principles would look very different and would be much more environmentally friendly (Shiva 1989). So, women are presented in literature either as vulnerable, poor, and living mostly in climate change threatened countries in the South or as environmental champions in the Global North, depicted as the final bulwarks for environmental care within masculine modern economies.

3.2.1 The "feminisation of poverty"

The dichotomy between vulnerable and virtuous women in relation to environmental change has created the "feminization of poverty" thesis. This thesis asserts either one or a combination of the following arguments: that women in many countries of the world comprise the majority of the poor, that women's poverty rates are rising disproportionately compared to men's, and that the phenomenon is linked to women's headship of households considered to be among the "poorest of the poor". (S. Chant in Angeles 2009). The belief that women in developing countries bear an unequal share of the burden of poverty is supported by a widespread quantitative date reported in the research of women in development. That is the assertion that 70% of the world's poor are women. However, this data has been cited by some scholars as having no scientific support (Marcoux 1998). Indeed, there is little disaggregated data that supports the "feminisation of poverty" thesis. Qualitative research suggests the existence of more complex realities. For example, Cecile Jackson, in her article "Gender and the poverty Trap" (1993) demonstrates that assumptions regarding the generality of women-headed households' poverty status are inconsistent. She shows the invalidity of the data on which this assumption is based, arguing that it is not always the case that all women-headed households are poor because much depends on the reason for female headedness. Indeed, women who are de facto household heads and receive remittances from migrant males workers might be less poor than male-headed households, while widows or divorced women might instead be amongst the poorest of rural people due to limited access to income transfers or to property rights. Thus, female headship is contingent and cannot be used as a proxy for poverty status. Also, in her study Jackson (1993) suggests that evidence proves that in South Asia, men are usually more affected than women in mortality during famines, despite the prioritization of males' interests during crises. Notwithstanding greater social and economic disadvantages, women in developing countries tend to live longer than men even though they are more likely to experience ill-health. Also, gender violence against women appears to be spread indiscriminately across regions, classes, cultures, and age groups; therefore, there are no grounds to believe that it would be alleviated with poverty reduction (Jackson 1993). Evidence supporting the fallacy of the argument that women comprise "the poorest of the poor" is also provided by Silvia Chant. In order to test the "feminisation of poverty" thesis, in her book "Gender, Generation, and Poverty," the scholar devotes three chapters to three different case studies in three countries, namely the Gambia in Africa, the Philippines, in Asia, and the Costa Rica in South America. The choice of three countries situated in three distinct continents makes a case for an interesting comparison due to their diverse economic, social, political, and cultural characteristics and histories. The aim of this comparison is to show the importance of paying attention to diversity, nuances, complexity, and contextuality if one wants to fully understand the existing link between

gender and poverty. This is important not only for theoretical frameworks but, more importantly, for non-government and government organizations policies and programmes planning and examination to address poverty and gender inequality simultaneously. In the case of the Gambia, polygamy and Muslim religious ideology played a role in gender roles and disparities. In the Costa Rica and the Philippines, both predominantly Christian countries, women and men presented varied poverty discourses and gender role expectations, despite the similarity in the countries' religious institutions. However, differences stood out regarding female-headed households and poverty. While in the Philippines and the Gambia, women-headed households were not necessarily poorer than men-headed, thus not particularly considered at high-risk poverty, in the Costa Rica, these households were disproportionately more prone to intense poverty, particularly among elderly women. The common thread accounting for greater household poverty connecting these three countries, despite their differences, seemed to be the presence of three components: large household size, rural residence, and limited education. However, one cannot conclude nor generalize, based on both empirical evidence and subjective views, that income-based poverty is growing and higher among women, relative to men; that some age groups are more vulnerable to poverty than others; and that increases in female-household headships are connected with the "feminization of poverty". (S. Chant in Angeles 2009). These findings suggest more complex realities and show that the "feminisation of poverty" thesis is somewhat simplistic as it invariably minimizes women's diversity and the complexity of gendered poverty-related experiences. Moreover, when translated into policy and programs, the practical implication of the thesis tends to simply increase women's burdens and/or perpetuate the status quo. Chant argues that the "feminization of poverty" thesis is best explained as "an increasing unevenness of inputs to household survival between women and men, rather than widening gaps in the incidence of income poverty." For this reason, she proposes to abandon the term "feminization of poverty" or substitute it with more appropriate concepts such as the "feminization of responsibility and/or obligation" or "feminization of survival" (S. Chant in Angeles 2009). Indeed, gender and poverty must be distinguished as two different forms of disadvantage, while the assertion about the feminisation of poverty simplifies both concepts. As Arora-Jonsson (2011) asserts: "there is a need to separate being poor from being women or the generalization that (…) all women are poor, and that the poor are always more vulnerable. Poverty appears to have a self-evident relationship to vulnerability since poverty tends to lead to greater vulnerability, and vulnerability to climate change often leads to outcomes that perpetuate poverty. But there is no universal and does not have to be, a direct correlation between poverty and vulnerability". The assumption that female headship of household leads to poverty leads to an intellectual orthodoxy that tends to stereotype female-headed households as poor, or as Chant calls it, to their "pathologization". This, in turn, has policy

implications because such an assumption informs policies and practices aiming at anti-poverty projects which target only or majorly women while leaving behind poor male-headed households or lone-father households. In a nutshell, evidence supporting the "feminisation of poverty" thesis is inconclusive and needs to be revised and clarified, especially when linked to a multidimensional concept of poverty that embraces the various forms of exploitation and privation that some, not all, women continually face. As Jackson (1993) argues, "rescuing gender from the poverty trap involves poverty-independent gender analyses and policies which recognize that poverty policies are not necessarily appropriate to tackling gender issues because the subordination of women is not caused by poverty." The scholar explains that women who are not poor equally experience subordination but of different kinds, such as domestic violence, personal insecurity, limited opportunities, oppressive gender ideologies, and mortality risks. This makes nonpoor women an important category in their own right. However, the position of nonpoor women is also relevant to poor women. In fact, "by changing societal perceptions of women's roles and identities, the achievements of nonpoor women can positively influence gender bargaining, ideologies, and opportunities for poor women through changing societal perceptions of women's options."

3.2.2 Gender and Climate Change

As the lack of supporting evidence for the feminization of poverty thesis shows, the literature about gender and climate change has been written primarily to promote a gender perspective within international politics. According to Arora-Jonsson (2011), arguments about women's poverty and mortality are used to back up claims about the unequal effects of climate change on men and women; this results in a loss of credibility of gender research in climate change, that is met with scepticism within the larger research community. One of the major weaknesses of the existing body of work on gender and the environment is the heavy reliance on generalisation, which tends to convey a static conception of women as either vulnerable or virtuous in relation to the environment. This tendency to represent women as a subjugated, homogenous group, "the poorest of the poor," results to be problematic on multiple accounts. Indeed, the insistence on women's alleged universal vulnerability, or at least in the developing world, renders gender invisible in the debates on climate change because the problem is believed to be women's vulnerability per se. Assessing vulnerability as a specific problem concerning women denies them agency and reinforces differences between women and men as unchangeable; this happens, for example, in the generalization that poor women are always more likely to die in catastrophes because they are more vulnerable while men are always assessed as the major polluters. Women are indeed vulnerable in a multitude of situations. However, generalizing

about it tells us little about the configuration of social relations of power in particular contexts (Arora-Jonsson 2011). Another major problem with such representation is their failure to account for the complex interactions between gender and other forms of disadvantage based on class, age, "race"/ethnicity, and sexuality; and that is intersecting inequalities among diverse groups of women and men (Demetriades & Espleen 2008). Indeed, current analysis does not explore how vulnerability is produced for other groups, such as certain groups of men. As Demetriades and Espleen argue: "intersecting inequalities also mean that while men in most societies enjoy the benefits of male privilege, they may share with the women in their lives similar experiences of indignity and subordination as a result of discrimination or social and economic oppression." Men and boys can experience powerlessness as women and girls do; thus, they as well are vulnerable to climate change, even if in different ways. For instance, the spate of farmer suicides in India in recent years, mainly men, shows the stresses that men face in times of food insecurity where they are meant to provide for the family. Moreover, vulnerability is a concept that depends on intersecting axes, such as socioeconomic status or class, caste, ethnicity, employment. So, to respond effectively to discrimination, vulnerability needs to be assessed according to the specific form in which it manifests. For example, speaking of gender effects of climate change impacts in a country such as India is not possible without speaking of caste and class because they play a defining role in people's vulnerability. Research on women's vulnerability to flooding in India has shown that lower caste households were more vulnerable to cyclones and flooding due to their location by the river. However, vulnerability was also dependent on the context since, for example, poor lower caste women were less vulnerable because they were granted access to government subsidies to build sound houses to protect them from such environmental hazards, which other castes were unable to avoid (Arora-Jonsson 2011). In addition, research conducted in the areas of Nicaragua most affected by Hurricane Mitch suggests that there was no reliable data to assess that women suffered from more physical damage or injury from the hurricane. According to Bradshaw (2010), who conducted the research, "the idea of being able to say with certainty who is the most affected by disasters is interesting given that the impact of any event will be time, place and person-specific or depend on a mix of location, event, and vulnerability." She argues poverty is a key component of vulnerability; however, it is not the only or neither the best component in terms of predicting impacts. Indeed, responses to environmental hazards are subjective and will be framed by individual understandings of appropriate behaviour, which, in turn, are shaped by cultural norms, including gender norms. For instance, in Latino cultures, the cult of "machismo," notwithstanding relative poverty, might cause men, not women, to suffer a loss of life during an event, due to their socially constructed roles and associated riskier behaviour patterns in the face of danger. While women's social conditioning might

make them risk-adverse, putting their lives in danger as they remain in their homes despite rising water levels, waiting for a male authority figure to arrive to grant them permission or assist them in leaving. This is an example of the ways in which notions of masculinity shape men's gendered risks, capabilities, and priorities in the face of environmental change (Demetriades & Espleen 2008). In addition, many of the negative impacts of climate change, such as physical and mental health, affect boys and men as well. The health consequences of climate change include malnutrition, heat-related mortality, waterborne disease, and respiratory disease due to air pollution. In the first chapter it has been presented how gender inequalities affect more women than men due to social and material barriers or as well as cultural and religious restrictions. This is also the case for accessing healthcare services, in which women are often disadvantaged due to a lack of financial resources or cultural prejudices. However, also men can face social barriers when using health services because they fear being seen weak or in need of support. Also, concerning food security, men and boys can be stressed out due to the social expectation that stems from their role of providing economically for their family, and this, in turn, can lead to mental ill-health in some cases. If to this is added, the resistance often made by men to seek help for mental health issues with respect to women, it follows that climate change responses should be sensitive also to these gender differentials in healthcare-seeking behaviour (Masika 2002). It does not surprise that many scholars' position on women vulnerabilities has been taken as the default response to the gender issue in relation to the environment since there are indeed entrenched structural disadvantages for women in many societies. However, the focus on women as an isolated social group did not permit to investigate the bigger picture, one in which women live within communities, in families, and most importantly, with men. Both women and men experience powerlessness, and thus both can be vulnerable to climate change, even if different ways. Indeed, men do benefit from their male privilege, but at the same time can experience similar cases of subordination as a result of social and economic oppression, which in turn enable or deny them certain choices, for example, determining whether migration in the face of environmental degradation is a viable option, especially for the elderly or very young, or those with limited resources. If men are not included in gender analysis of climate change impacts, then analysis reveals its inadequacy because women are abstracted from social realities while gendered relations of interdependency between women and men are obscured. This produces a distorted picture of women's vulnerability and responsibilities. Gender analysis of climate change should include men; otherwise analysis results biased and somehow nongendered. There is a need to acknowledge men's vulnerabilities where they exist and as well as recognize the positive contributions that men make to gender equality. Moreover, the severity of climate change impacts has been recognized as being contextually variable. Rather than theorising gender as social and political relationships between people with masculine and

feminine roles and identities, most analyses fall into the familiar trap that gender means- women (MacGregor 2010). Given the fact that "women" does not stand for "gender", women are not the same across different context. This means that a woman living in rural India will bear different challenges, have different interests, priorities, and resources than a woman living in urban India or in England. Thus, generalizing vulnerability to climate change does not permit the assessment of the specific needs of specific groups of women or men, therefore enabling them to benefit from the potential of climate change mitigation in different contexts. What is more, the focus on women as poor and vulnerable has concentrated the transfer of resources to women. It has been shown that this does not necessarily benefit women specifically. In other words, the feminisation of anti-poverty programmes, which has been one of the main policy responses to date, seem to have contributed to the problem they are supposedly attempting to solve, that is, to push more of the burden of dealing with poverty onto the shoulders of women (Chant in Arora-Jonsson 2011). Indeed, some scholars make the argument that although policy and resources are directed at women, they often have an unintended negative impact where greater responsibility for overall poverty is put on women. As Chants (2008) puts it, poverty reduction measures become "best encapsulated under the rubric of a feminisation of responsibility and obligation". Indeed, as Davids and van Driel (2009) state, women are made into instruments of the fight against poverty on the basis of clichés, which turns them from "victims into heroines" as they become assigned the role of getting rid of poverty. This transformation from the victims to heroines instead of deconstructing the essentialist stance on gender relations reinstates it. According to Arora-Jonsson (2011), this transformation rings a familiar bell in relation to the North-South discussions on gender and climate change because it reflects not only attempts to put gender and women on the map but also reveals North-South biases while reinforcing them. So, the consequence of the characterization of the vulnerable woman in the South is the narrative of the virtuous woman of the North, exclusively depicted as environmentally conscious and environmental trailblazer.

3.2.3 Reconceptualizing vulnerability and gender

Although the body of literature on gender and climate change represents a significant counter tendency to the almost complete gender-blindness in the dominant policy arena, it has been described that it presents its own shortcomings. The exclusive focus on climate change in relation to women in the developing countries of the Global South, repetitively expressed in almost every article or journal on the topic, results to be problematic as it constructs these women as one-dimensional objects. Therefore, rural women in the Global South are the main protagonists who enter the discussion on

vulnerability and climate change as climate victims. Thus, this approach frames southern women as voiceless, unable to manage their families' livelihood without the help of development agencies funded in the North. Moreover, in existing research the case of gender and climate change is made by measuring the impacts and counting the victims without necessarily qualitative understanding of the context while silencing the voices of those women who do not want to be framed in such climate story. In addition to this, most of the analyses fall into the gender-means-women trap and no reason is given to gender-based research on climate change besides that it hurts women (MacGregor 2010). Having discussed the main weaknesses of gender and climate change research, the discussion will now explore possible ways to re-articulate gender within the context of vulnerability to environmental disruption. Gender politics should analyse power relations between women and men treating gender as a discursive construction, that involves the cultural and social construction of hegemonic masculinities and femininities by which is meant the discursive conceptualisation of maleness and femaleness. More specifically, femininities and masculinities shape the way in which interpretation, articulation, and response to specific phenomena like economic crisis, war or, in this case, climate change. This kind of approach is proposed by MacGregor (2010) as a feminist constructivist approach to gender analysis; the scholar argues that the positivist approach to climate change discourses led to a sort of obsession with the impacts as material and measurable but this has not correspond to a resonance of the gender agenda into institutional climate change. In her view, more critical feminist analysis is needed in order to assess the implications of gendered assumptions about women and men for the climate change debate. Eakin and Luers (2006), in a study on vulnerability in the context of human-environment relations, define it not as "an outcome but rather a state or condition of being— and a very dynamic one at that —moderated by existing inequities in resource distribution and access, the control individuals can exert over choices and opportunities, and historical patterns of social domination and marginalization". Thus, vulnerability is not an intrinsic characteristic; it does not derive from a single factor such as "being a woman" or "being poor", but is indicative of historically and culturally specific patterns of practices, processes and power relations that make some groups or persons more disadvantaged than others. Vulnerability is therefore a dynamic condition that shapes opportunities, choices and historical patterns of social domination and marginalisation. Also, Nightingale (2006) understands vulnerability as process-oriented and argues that in the process of managing natural resources, the social meaning and relevance of differences between men and women is continually produced and performed. And through such processes the meaning of various social categories of differences (woman, man, ethnic group) are played out and social inequalities are contested, changed, and reinforced. The scholar suggests that the consideration of gender in environmental issues conceptualized as a linear or structuring relation, limits the analysis to the

promotion of strategies to equalize the impact on men and women. Notwithstanding the importance and relevance of such measures, "they do not always produce the anticipated outcomes because of the dynamic relationship between gender, environment and other aspects of social and cultural life". Thus, the gender- environment nexus should be reconceptualized as a process. In this way, the dynamic relationship between gender, environment, and other aspects of social and cultural life can be included and the understanding of how people are gendered and disciplined as women or men under different environmental stresses can emerge. Resureccion (2013) notes how social biases and discriminatory institutional and discursive practices materialise women's vulnerability, as they respond to climate stresses, and consequently, categorise them as a vulnerable group. These practices are the elements worth mitigating, rather than creating focused programmes and advocacies imposing responsibilities on women only, tapping an imagined special and distinct agency, and thus passing on to them the additional burden of adapting to climate change in the tradition of earlier WED projects, which have created their own inertia. A feminist response to global climate change should not only condemn masculine expert knowledge about climate change but also challenge the tendency to reinforce gendered polarities as well as North–South divides that tend to divide women as vulnerable or virtuous. Arguments about women's vulnerability in the South and their virtuousness in the North are an effort to keep women and gender on the climate change map from where their presence is all too easily erased. However, it also works to maintain the status-quo and can inhibit substantive change. It is dangerous to attribute responsibility by gender. As MacGregor (2010) argues "from scientific expertise to greening the household, the gendered discourses currently employed in the climate change debate give voice to a deeply-entrenched gender ideology that rests on exaggerated differences between men and women". Women need to be seen like men being responsible and as well capable agents in mitigating climate change without losing track of power relations involved, without being categorized as earth-carers from the South or taking the blame for the North's eco-sins. The analysis needs to go beyond the impacts experienced by vulnerable women and start to look at the ways in which gendered discourses create and perpetuate gender asymmetries. In this way climate change policy might be framed through more inclusive, gender-sensitive discourses.

CHAPTER 4

4. CLIMATE CHANGE DENIAL, MASCULINITY, AND ENVIRONMENTAL CONCERNS

4.1 Gender, masculinity, and environmental concerns

Every historical process, every scientific discovery, every political ideology, has always been opposed to a specific form of denial, committed to supporting opposing theses that denied the existence or refuted the original theses' power and influence. The scheme of action is almost always the same, more or less credible and influential personalities are identified to be able to embody the negationist myth with the authority sufficient (very often academic) to fight the only real enemy identified, namely the authoritativeness of science. For what purpose? The goal is to safeguard mainly economic and political interests. This is the case, too, of climate denial. Previsions about the temperature rise of the Earth's surface related to fossil fuels emissions have been supported for more than thirty years by scientific research and community. However, research of this kind, have been joined by other research aimed at delegitimizing the climate alarm and fight the worldwide environmental policies in continuous diffusion. It is a game of the parties that sees the two opposing factions take sides: on the one hand, the scientific authority remains faithful to its main channels of diffusion, on the other hand, political lobbies and economic interests exploit the fruitful field of public opinion and social manipulation through information. There have been many discussions about the environmental state of the planet and what can be done to avert a real global climate crisis. And it was precisely in the media arenas (as well as on social media) that this democratic discussion emerged. The studies on the reality of anthropogenic global warming are many, the evidence is overwhelming, and scientists agree on the already visible consequences of climate change. Yet many people around the world think that climate change is an invention, or at least claim that it is not an imminent event, that it is less dangerous than the data indicate. The first part of the chapter will deal with the relationship between climate change denial and masculinism. What kind of relationship is there between climate change denial and gender discrimination? How does the climate issue affect gender inequality? Why is it believed that climate battles and environmental protection are generally carried out by young women (very young) and are opposed mostly by white, western, and right-wing adult men? Several research publications show that climate change sceptics are often adult men, white, Western, right-wing, and anti-feminist. Indeed, evidence suggest there is a direct link between conservative white men and climate change denial. It will be argued that the correlation existing between the two comprises evidence that climate change denial is a form of "identity-protection" and a "system-justification" tendency of political conservatives, which explains their stickiness to the

status quo and resistance to attempts to change it. More specifically, by integrating the identity-protection thesis about white males, and the system-justification tendencies about conservative individuals the theoretical framework for the "conservative white male" effect will be explained. In addition, the chapter will elaborate on the strong affiliation existing between right-wing, conservative politicians and the fossil fuel industry in promoting anti-climate change research to hamper any form of social change to preserve the status quo. The analysis goes further by elaborating on the relationship between climate sceptics and masculinism by introducing the concept of industrial breadwinner masculinity. A term that stands for Western white men's (and the hyper-masculinised system that supports them) social, economic, and political advantage which describes the specific values and behaviours connected to a form of masculinity that sees the world as separated between humans and nature. Moreover, these white, adult, right-wing conservatist men often use a reactionary language, violent, intensely sexist that seeks to protect their well-defined identity. Indeed, this has been the case with the frequent attacks on the young Swedish environmental activist Greta Thunberg, often resulting in real hate campaigns from climate sceptics. More generally, the most frequent attacks do not pass only through the political ideas that these individuals defend but are transformed into targeted attacks that exploit personal and subjective characteristics. It will be argued that the commentators who verbally attack Thunberg are part of a well-established network of radical free-marketeer lobby groups which has strong ties with the fossil fuel industry and funders of climate science denial. Perhaps the most notorious example of these kind of attacks is represented by US President Donald Trump's curious use of the social network Twitter. The second part of the chapter will explore gender, environmental concerns, and behaviours in the attempt to answer whether women are for real more concerned for the environment than men. The discussion will draw from several studies showing that women, in general have, a higher level of concern for the environment but are less keen to engage in activism. Indeed, despite the inconsistency of the results, there is widespread support in Western literature to women's stronger attitudes towards pro-environmental activities and values. Concerning this, two main theoretical explanations will be provided, namely the gender socialization perspectives and the biographical availability thesis. The chapter will conclude with the analysis of a study on gender and environmentalism, which illustrates that women's participation in public environmental behaviours has revealed to be reduced due to women's social roles which constrain their available time and commitments.

4.1.1 Right-wing conservatism, extractive industries, and climate change denial

The serious concerns towards the effects of climate change have started emerging since the 1980s, reflecting the strong international consensus on the issue. This was due to several reports published by the National Academy of Sciences, the Intergovernmental Panel on Climate Change, and the World Climate Program. (McCright, Dunlap 2003) The consensus at the international level on the reality of global warming translated into the meeting of 160 nations in Kyoto, Japan, in 1997. The result of this meeting was the Kyoto Protocol, signed in 2003, which consisted in the developed nations' commitment to an agreement aimed at reducing their future carbon dioxide emissions, the major contributors to the strengthening of the natural greenhouse effect. Despite the growing consensus of the scientific community on global warming, efforts to bring the issue on the national agendas to develop effective environmental policies were halted by some specific anti-environmental agents. Indeed, as McCright and Dunlap (2003) reported, the US epitomizes this form of counteraction to pro-environmental political efforts. As early in the 1990s, it started to appear in the American policy arena, a strong contestation to the existence of global warming, led and supported mainly by the American lobbies of the fossil fuels industries and different segments of the American conservative movement. According to the scholars, it is possible to argue for a genuine mobilization of counter-movements organizations between 1990 and 1997 led by conservative think tanks, to challenge the existence of global warming and its relevance as a social problem. This has been done by deconstructing global warming socially problematic nature. More specifically, the main strategy employed by conservative think tanks has been manipulating information, diffuse opposition, and promotion of the benefits of the activities of oil and gas industries to hamper environmental issues from entering the public policy arena. Thus, conservative think tanks played a decisive role in shifting the conservative movement's attention to global warming. Many studies found conservatism to be negatively related to pro-environmental attitudes and actions among the general-public and especially among political elites (Dunlap, Xiao, and McCright 2001). MCright and Dunlap study argue that a key reason for environment concerns and conservative parties' negative relations, is that the pursuit of environmental protection often involves government action, which in turn, threatens economic libertarianism, which is a core element of conservatism. Thus, the emergence of global warming and the possibility of large-scale social change resulting from efforts to ameliorate the status quo comprised a major threat to the American industry, prosperity, lifestyles, and the entire "American way of life." Indeed, the growing concern over global warming jeopardized the conservative movement's ideology and material interests. Specifically, the characterization of global warming as a major problem and the consequent possibility of an internationally binding treaty to curb carbon dioxide emissions are seen as direct threats to sustained economic growth, the free market, national

sovereignty, and the continued abolition of governmental regulations, which are key goals promoted by the conservative movement. (McCright & Dunlap 2003) Also, a more recent study conducted in the US by McCright and Dunlap (2011) demonstrated a positive correlation between self-reported understanding of global warming and climate denial among conservative white males. The authors argue that the correlation existing between the two comprises evidence that climate change denial is a form of identity-protection. More specifically, the identity-protection thesis explains the "white male" effect, by which the authors mean "the atypically high levels of technological and environmental risk acceptance among white males". In their research, McCright and Dunlap (2011) also drew from another political psychology concept known as the "system-justification tendencies" of political conservatives, which explains their stickiness to the status quo and resistance to attempts to change it. By integrating the identity-protective thesis about white males, and the system-justification tendencies about conservative individuals, the scholars, provided a theoretical framework for the "conservative white male" effect (McCright & Dunlap 2011). Briefly, the theoretical rationale is as follows. White males in the US have been found to be more accepting of risks in general than other adults. The study suggests that the variance in risk perceptions, especially across race and gender, is not due to biological explanations, but rather to cultural norms and group membership. In other words, individuals adopt beliefs shared by other members of salient in-groups, resisting any revision of such beliefs if confronted with out-group's counter beliefs. Thus, the identity-protective thesis stands for preserving the status-quo and self-esteem that individuals receive from group membership. In the authors' words: "to the extent that conservative white males in the general public view their brethren within the elite sectors as an in-group, then we expect that the former also will tend to reject the global warming claims of the scientific community, the environmental movement, and environmental policy-makers. In short, they will espouse climate change denial to defend the information disseminated within their in-group and protect their cultural identity as conservative white males" (McCright & Dunlap 2011). In addition to economic and political interests, it seems that the real interest to be defended is their own identity. The difficulty of accepting the inevitable occurrence of the change in the social and political paradigm is not only dictated by economic interests but involves social, cultural, and also deeply rooted psychological aspects. However, as already anticipated, the denial of the adverse consequences of the anthropogenic impact on the environment, concerns another powerful group, namely the oil and coal extractive industries. Indeed, environmental policies comprise significant challenges to the industrial capitalist economic system. The fossil fuel giants have significant interests in keeping the status quo by ignoring climate change research. Evidence suggests that there is a strong affiliation between right-wing, conservative politicians and the fossil fuel industry. On this matter, Martin Hultman, a member

of the first research centre for studies of climate change denialism (CEFORD), in a recent interview with newspaper *Deutsche Welle*, talked about a genuine alliance between the CEOs of the extractive industries and the politicians who are financed by these companies. As already mentioned, from the 1980s onwards, oil and coal extractive industries began to fund climate change denial research to promote their interests through the establishment of think tanks with the intent to oppose climate change research. The oil company Exxon Mobile's climate change communications comprise an example of how climate data have been manipulated to promote a self-beneficial policy agenda. As early as 1979, ExxonMobil (the US oil company present on the world market and operating in Europe known as ESSO) had predicted an increase in the temperature associated with the emission of fossil fuels (The Independent 2017a). However, available documents showed a discrepancy between ExxonMobil scientists' predictions and what was presented to the general public. The newspaper "The Independent" reported that two academics from Harvard University made known that the American fossil fuel giant "misled the public predictions about the risks posed by climate change (through) an analysis of its public and private announcements on the subject". Indeed, if in 1979 ExxonMobil's internal documents discussed the burning of fossil fuels as the primary cause of the warming of the Earth's surface and the dramatic environmental effects it would have caused before the year 2050; on the other hand, in 2008, the firm claimed the non-existence of a direct link between GHGs emission from the oil and natural gas industry and the phenomenon of climate change. Indeed, the company spent a significant amount of money on regular advertorials in the New York Times (NYT) and other newspapers, "in which it sought to cast doubt on the science" (The Independent 2017a). What is more, from 2006 to 2016, the company was led by former US Secretary of State, Rex Tillerson, who was found using an alias email address under the name of Wayne Tracker to discuss climate change while he was chief executive of the company (The Independent 2017b). Moreover, evidence from "The independent" (2017c) suggests that since becoming a member of the Trump Administration, Mr. Tillerson told US diplomats to be deliberately vague and sidestep questions from foreign governments on whether the US would have a climate change policy and whether there were intentions on a possible re-engagement in the Paris Agreement. A peer-reviewed paper has also shown the discrepancy in ExxonMobil's climate change communications in the journal Environmental Research Letters which argued that "ExxonMobil's advertorials in the *NYT* overwhelmingly emphasized only the uncertainties, promoting a narrative inconsistent with the views of most climate scientists, including ExxonMobil's own." (Supran & Oreskes 2017).

4.1.2 The industrial, breadwinner masculinities and climate change denial

Nevertheless, in the current international debate, climate sceptics are also united by another type of scepticism that manifests itself with the difficulty of admitting the existence of the issues of gender, of the racial problem, of homophobic discrimination. More generally, climate change deniers are usually deniers of all forms of discrimination. Indeed, they are often adult men, white, Western, right-wing, and anti-feminist. Indeed, recent research by the Chalmers University of Technology in Goteborg, Sweden, confirmed these findings. This assumption does not intend that everyone who is on the right-conservative side of the political spectrum is automatically anti-feminist or anti-environmentalist. However, evidence suggests that the majority who engages in such attitudes are indeed embedded in such reactionary stances motivated by anti-feminist, right-wing nationalist mindset, and amongst these people there can be women as well. The Swedish university, which has established the CEFORCED, published a study in 2014, which analysed the language used by climate deniers. (Anshelm & Hultman 2014) A reactionary language, violent, intensely sexist that seeks to protect the well-defined identity of a specific type of masculinism. In the past year, the environmental protection movement and the political fight against climate change have seen two young women as world spokesmen: Greta Thunberg, the activist who, with her solitary strikes in front of the Swedish Parliament, managed to give life to the international student movement Fridays for future, and Alexandra Ocasio Cortez activist and politician who after defying and unexpectedly beat Joseph Crolwy democratic primary, becomes the youngest elected to parliament. Both became the main target of criticism, often resulting in real hate campaigns from climate sceptics. However, more generally, the most frequent attacks do not pass only through the political ideas that they defend but are transformed into targeted attacks that exploit personal and subjective characteristics. This fact, of course, is not coincidental. Greta Thunberg and Alexandra Ocasio manage to reveal what for years has been tried to deny and keep hidden with expensive information campaigns that have had the complicity of important sectors of the press, and they manage to do so precisely because of what the two activists represent subjectively. If until recently, public opinion, far from technicalities, decided to believe and rely on this or that other current of thought, suggested by the classical sources of information (often piloted), today the voices that attract attention have a face and have the face of those who, traditionally, we are not accustomed locating in political contexts and power. It is not a coincidence that among the most frequent arguments of those who discredit the two activists are inadequacy and incompetence, with the aggravating of age. Indeed, the attacks on Greta Thunberg, are not about anti-environmentalism but are often delivered through scornful and mocking comments about the teenager's age, appearance, and health conditions, since she is affected by the Asperger syndrome, a neurodevelopmental disorder. The foremost example of this "bully" attitude is perhaps

US President Donal Trump tweets on Thunberg. After the Swedish activist participation to the UN General Assembly in September 2019, Trump wrote on his Twitter account, referring to her condition, "So ridiculous. Greta must work on her Anger Management problem, then go to a good fashioned movie with a friend. Chill Greta, Chill!". However, the US President had mocked the young activists before, this time sarcastically commenting on the girl's appearance: "she seems like a very happy young girl looking forward to a bright and wonderful future. So nice to see!". Moreover, the blog DeSmog, the world's number one source for accurate, fact-based information regarding global warming misinformation campaigns, published an interesting article in 2019 concerning the EU's lobbyist network, which is behind the attacks on Greta Thunberg. According to the article, the large and powerful group of commentators who verbally attack Thunberg are part of an established network of radical free-marketeer lobby groups which has strong ties with the fossil fuel industry and trailblazers of climate science denial (DeSmog 2019). If you are a woman, but especially if you are young and inexperienced (the two traits go hand in hand), you cannot occupy certain positions of power: the risk is not to be credible. The cultural problem is that inexperience is inevitably associated with young women, and, on the contrary, competence and adequacy are the exclusivities of men. In danger is the "masculinity of industrial householder," as Martin Hultman stated in an interview with *Deutsche Welle*. He argued that at risk there is a type of masculinity composed of economic and power values that put economic growth at the centre of its interests and at the expense of the environment, nature, and any other type of ideology. In this interview, Hultman referred to this type of masculinity as "industrial breadwinner masculinity", by which he means a package of values and behaviours connected to a form of masculinity that sees the world as separated between humans and nature. Further, he argues that those who enter this package of values and behaviours believe that humans are obliged to use nature and its resources to make products out of them. And they have a risk perception that nature will tolerate all types of waste. Due to their risk perception, these people do not think of nature as vulnerable and as something that is possible to be destroyed For these climate sceptics it is not the environment that is at stake, rather a certain kind of modern industrial society built and dominated by their form of masculinity (Anshelm & Hultman 2014). Therefore, this elite-driven counter-discourse intertwines with a masculinity connected to industrial modernisation, natural science, and engineering rationality. On this argument, the scholars Paul Pulè and Martin Hultman (2019) provided a profile of the industrial breadwinner masculinities and their relations with the 'white male effect' (discussed above), and climate change denial. Their study, drawing from examples in Western Europe and the United States, focuses on the individuals and constituencies involved in fossil-fuel industrialisation and corporatisation which, as explored beforehand, are aligned with climate change denialism whose beliefs are embedded in traditional socialisations of

masculine identities. The industrial/breadwinner masculine typology yields to the already cited "white male effect" which combines to climate change denial or weak concerns for global warming and environmental degradation. According to the authors, this typology of masculinity comprises a formidable bulwark against transformative change towards a more sustainable future. More specifically, Pulè and Hultman (2019) call for climate change denial as "a tactic of wealthy – mostly white Western – men (supporting by working- and middle-class base) to re-assert social, economic and political power, and control over natural resource extraction and wealth distribution while wantonly disregarding the deleterious global, regional and local impacts of anthropogenic climate change on the current and future fecundity of society and Earth." Not by chance, their analysis on the intersection between climate change denialism and white male effect is based on the consideration of the intersection of power and resources inequalities based on gender, class, and race. Indeed, their examination concurs with Greta Gaard's (2015) description of climate change as "white industrial capitalist hetero-male supremacy on steroids, boosted by widespread injustices of gender and race, sexuality and species". Thus, an intersectional analysis that includes gender, class, and race variables sheds light on the "malestream" norms that obfuscate the intrinsic value of non-human nature. According to the authors, this hyper-masculinised business approach to global, social, and environmental problems lies at the heart of the root causes of climate change. However, what does it mean to be an industrial/breadwinner male? This term stands for Western white men's (and the hyper-masculinised system that supports them) social, economic, and political advantage. Analogous terms are Western "patriarchal", "hegemonic", and "normative" masculinities. Of course, these terminologies are mostly applied to men. However, they can also be used to refer to those women who also benefit from the financial hyper-masculinised systems, such as women who are heads of state or strictly linked to corporate capitalism, or female corporate leaders themselves. Indeed, the term 'industrial' exemplifies industrialisation's environmental implications whose primary beneficiaries are the owners of the means of production, financial managers, bankers, fossil fuel and mining executives and corporate managers. These individuals collectively represent, control, and benefit from corporate capitalism at the expense of other human and non-human others (Anshelm & Hultman 2014). Although it is not possible to point Western white males as the only creators of ecological and social problems, male dominance over non-human life on Earth has consolidated in huge benefits over the centuries. Historian Carolyn Merchant has well described the historical masculine hegemony over nature in her book "The Death of Nature: Women, Ecology, and the Scientific Revolution". Anshelm and Hultman (2019, 2014), influenced by Merchant's work, note how men have historically been ignoring concerns for the environment while exploiting nature through practices such as resource extraction, surplus production, wealth creation, and the capacity

to manage these surpluses. Indeed, male hegemony, under the vests of resource exploitation, created a hierarchy in wealth distribution, which led to systemic forms of organised oppression against any challenge or variation from the male-dominant societal structure. If, on the one hand, there are the "lieutenants" of corporative capitalism, on the other hand there are the "foot soldiers" of the Global North industrial means of production (Anshelm & Hultman 2019). These are the "breadwinners", or more specifically, the working-class individuals who represent those dependent on resource extraction for their wage. In the Western social context, breadwinners have historically been predominantly white men. The 'breadwinners' category is located on the other end of the class hierarchy in respect to their industrial counterparts, belonging to different economic, political and social groups. However, they are similarly embedded into the process of "commodisation" of Planet Earth's resources.

4.1.3 The politics of climate change denial

As a matter of fact, global capitalism has showed to be significantly fragile and flawed. Evidence of this can be found in the recent socio, economic and political events such as the 2007-2008 global financial crisis, the Brexit process, the rise of populism, the social and environmental refugee crisis, and the subsequent growing xenophobia. Climate change and its effects are maybe the perfect example of a complex issue of interrelated social, political, and physical forces. That makes it an easy target for a populist-kind of denial. However, populism ends up denying not only the science of climate change, but also the complexity of the whole issue, which is crucial both to diagnose the problem and to find solutions and mitigation strategies. In fact, populism eliminates the problems of nuances and thus hinders progress. In turn, this, provokes a huge impact on politics, especially in Europe and in the US. A 2019 study on the mapping of the climate agendas of right-wing populist parties in Europe, provides some revealing evidence: two-thirds of right-wing populist members of the European Parliament "regularly vote against climate and energy policy measures". Half of all votes against climate and energy resolutions in the European Parliament come from the right-wing populist party members. Out of the twenty-one right-wing populist parties analysed, seven were found denying climate change, and its anthropogenic negative causes and consequences. (Schaller & Carius 2019) According to estimates based on global greenhouse gas emissions data from the World Resources Institute, about 30% of global emissions come from countries with populist leaders (Foreign Policy 2019). At a time in which global cooperation is essential to the effectiveness of climate action, many of the leaders of these right-wing populist forces are trying to wreck or cripple multilateral organisations such as the United Nations or the European Union. Indeed, right-wing

nationalist parties in Europe have a strong link with climate change denial; this is the case in Britain with the United Kingdom Independence party, in France with the Front National, in Italy with the Lega Nord, but also in Norwegian and Swedish conservative parties (Krange, Kalrenborn & Hultman, 2018). However, the primary example of climate change denial in politics is perhaps Donald Trump's administration. Trump's climate change denial is epitomized in his decision to begin the process of withdrawal of the US from the Paris Climate Agreement, ensuring that the world's second largest emitter of GHGs will stop international efforts to combat anthropogenic global warming. The US President's stance on global warming confirms the findings that due to their positions of power, prestige, and status in the industrial capitalist economy, white conservative male elites are more likely to support the claim that climate change is not real and that no necessary action is needed. Thus, redefining global warming as non-problematic and de-legitimizing scientific authorities (McCright & Dunlap 2003).These political groups are threatening to derail the progress of the global response to climate change and on new ideas on how to link the economy to a more sustainable world. Regardless of the fact that the political will to undertake transformation action to drastically reduce carbon emissions and adapt economies and societies to environmental needs (particularly in the South of the World) will be convoked by 2030, it is clear that by the end of the century life on Earth will be very different from the current reality. For sure, it will be more difficult and dangerous. Of course, this applies to everyone, but especially to the most vulnerable members of human society, which are set to peak at 9.8 billion by 2050 (up from the current 7.8 billion) and 11.2 billion in 2100 (UNDESA 2017). This will be the challenge of human development. However, the biggest obstacle to climate action will not be the technological know-how, neither the collection of money required. Instead, it will be the lack of sufficient political will to address the issue, considering the obstruction of right-wing populist in power throughout the world. Therefore, in the face of right-wing populist denial of climate change, it seems that the struggle to be won for climate justice is primary a political one. Indeed, Trump-like trajectories of climate change denial, charged and amplified by social media's impacts, distract, and hinder necessary and effective climate action.

4.1.4 Environmental activism in the digital age: Greta Thunberg vs. Donald Trump

Yet, despite its shortcomings, the digital age offers major opportunities to propose a counter-narrative and to recruit new activists. Indeed, in the digital age, people can connect more easily and, as a result, protests can be organized more quickly without worrying about time zones. The main agents of change in the digital age are young people, not just for their proximity to digital tools, but for the deepest interest of all, namely the fact that their future is at stake. The Swedish teenager Greta

Thunberg is perhaps the most evident example of a new, leading generation of environmental activists. Indeed, in 2018, at only 16 years old, she founded the "school strike for climate" movement and started protesting outside the Swedish parliament every Friday to demand action towards the climate crisis. Slowly, she was joined by her peers, first in her country and then globally. Greta Thunberg passed from being just a teenager protesting on her own to be an inspirational leader for an entire generation of young people who, under her leadership, organized themselves in the Fridays For Future movement composed by millions of students worldwide who every Friday protest against the indifference of politicians towards the climate crisis. With her words and actions, the young activist tries to raise awareness on the environmental consciousness of the World's leaders and is gradually becoming the symbol of the struggle against climate change. Also, the Swedish activist has held several speeches in important venues and occasions. In her most famous speech, held in Katowice, Poland, during the 24th Conference of the Parties (COP24) in December 2018, she admonished with powerful words the World's leader for having ignored the climate crisis and for stealing the future from younger generations. She brought awareness to the general-public about the problem of intergenerational climate justice. I report her speech: "the year 2078, I will celebrate my 75th birthday. If I have children maybe they will spend that day with me. Maybe they will ask me about you. Maybe they will ask why you did not do anything while there still was time to act. You say you love your children above all else, and yet you are stealing their future in front of their very eyes". And again: "you only speak of green eternal economic growth because you are too scared of being unpopular. You only talk about moving forward with the same bad ideas that got us into this mess, even when the only sensible thing to do is pull the emergency brake. You are not mature enough to tell it like it is. Even that burden you leave to us children". During one of her most recent speeches at the World Economic Forum 2020 in Davos, Switzerland, Greta Thunberg, following US President Donald Trump's speech, expressed her disappointment for the world leaders' failure to take serious action on climate change. Once again, she reiterated that time is running out, and immediate action is needed to solve the climate issue on time. She condemned the World's most powerful and influential business and political leaders for the insufficient action taken so far, remembering that no political ideology or economic structure has been able to tackle environmental emergencies and to create a cohesive path for a sustainable outcome. Moreover, she demanded the immediate halt of all investments in fossil fuel extraction, exploration, and to end all fossil fuel subsidies, assuring to her audience that unlike them, her generation "will not give up without a fight". Thunberg's words followed Trump's speech, who seemed to be more concerned with the celebration of the US economic strength, achieved under his administration, than with the environment and sustainability. Indeed, one section of his speech briefly discussed on the theme of the Forum (sustainability), by declaring US participation in

the 'One Trillion Trees Initiative', a project which connects funders with forest conservation ventures, with the aim to restore forest ecosystems and stop deforestation. Despite this brief mention to this initiative, President Trump's speech mainly aimed at denouncing alarmist views about the future; he argued that "to embrace the possibilities of tomorrow, we must reject the perennial prophets of doom and their predictions of the apocalypse", as they are "the heirs of yesterday's foolish fortune-tellers" (PDR 2020). The reference to religion with Trump's use of the word "prophets", is perfectly in line with the white, conservative, climate denier men narrative. Another example is the right-wing Italian newspaper "Il Giornale", which in 2019 published an article with the title "*Greta, sacerdotessa del clima che nulla ha di scientifico*", arguing that Greta Thunberg's populism is demagogic and imbued with millenarianism that has nothing to do with science but rather it is more similar to a "faith". Anshelm and Hultman (2014), in their study on the masculinity of industrial modernity, with reference to Sweden, explain that climate change deniers' scepticism is usually delivered through the adoption of religious metaphors. Indeed, the primary accusations addressed to climate scientists and politician was of being eco-terrorists, driven by religious fervour, attempting to destroy civilisation. According to the scholars, such accusations are not uncommon, considering that in the past, the environmental movement has been referred to and accused of being a "secular religion". This faith-based religious rhetoric, which refers to climate scientists and science itself with religious terminology (scientists are portrayed as priests, fundamentalists, clerics), has the primary objective of undermining the existing consensus towards the environmental crisis. As argued beforehand, in their study, the two scholars significantly drew from historian Carolyn Merchant work 'The Death of Nature', who as reported, identified a type of objectifying and mechanistic masculinity that accuses others of religious fervour while adopting a faith-based belief in a modern industrial society. The dichotomy between men/culture as superior to women/nature was created since the Enlightenment, which according to Merchant, corresponded to a shift from an organic conception of nature to a mechanical one; this shift coincided with the rise of industrial mechanical, operational skills, which treated nature merely as a resource. Therefore, the economic characterization of nature as a commodity partly pushed society towards industrialisation, mechanization, and capitalism.

4.2 Gender, environmental concerns, and behaviours: are women more concerned with the environment?

In view of the above, one might easily assume that women are indisputably more concerned with the environment with respect to men. However, does gender influence concern for the environment and involvement in environmental movements? Do women care more than men for the environment? Dunlap and Jones (2002) defined the concept of environmental concern as "the degree to which people are aware of problems regarding the environment and support efforts to solve them and/or indicate a willingness to contribute personally to their solution". Before environmental justice came to the fore, there was already considerable attention to understanding the differences between men and women relatively to environmental concerns (McStay & Dunlap 1983; Mohai 1992). From the 1990s, several studies in the West have found that women in general have a higher level of concern for the environment (Tindall e al. 2003). However, results proved to be mostly inconsistent because of the contingency to the specific country in which they were conducted. Indeed, while research found women participating more than men in environmental behaviour in Europe (Mattheis et al. 2002) and North America (McCright 2010; Hunter et al. 2004) on the other hand other research did not report any significant differences between genders in environmental behaviours (Berenguer et al. 2005). Furthermore, still, others have found men to be more involved in environmental behaviours with respect to women (Aoyogi.Ususi et al. 2003). Despite the inconsistency of the results, there is widespread support in Western literature to women's stronger attitudes towards pro-environmental activities and values. However, according to some, this depends on whether pro-environmental activities are performed inside or outside the home (Hunter et al. 2004). This is to say that in the relationship between gender and environmental behaviours, there is a distinction between private behaviours taking place in the household (e.g., recycling, buying, or eating organic) and public behaviours taking place outside the household (e.g., political activism, protesting). According to many studies, women engage in more private behaviours than men, while differences in public behaviours are few or not existent. However, since the middle 1990s, the public/private division in environmental activities has been considered the predominant pattern in studies regarding the differences in gender concerns towards the environment (Hunter et al. 2004; McStay & Dunlap 1983; Mohai 1997; Tindall et al. 2003). Even if women express deeper concerns, beliefs, and values for the environment, why does not this translate into greater engagement in public behaviours? Literature offers three main explanations for this gendered pattern of relationship with the environment: the gender socialization argument, the political socialization argument, and the biographical availability thesis. (Xiao & McCright 2014)

4.2.1 Gender socialization perspectives

The gender socialization argument focuses on differences in conventional gender socialization, which lead to a stronger environmental concern of women in respect with men, and to both men and women view of the public sphere as a masculine domain, contrary to the private sphere that is seen as a more feminine domain (Xiao &mMcCright 2014). More specifically, individual behaviours reflect traditional gender socialization patterns and are shaped by gender expectation within the context of cultural norms (Hunter et al., 2004). Within traditional gender socialization, women are assessed as the caregivers and nurturers and thus embrace a worldview based on "more ecologically benign roles" (Mcstay & Dunlap 1983) concerning the maintenance of life, which then is associated with environmental behaviours. The gender socialization theoretic perspective maintains that women are socialized since early childhood to be more sensitive to the needs and feelings of others; therefore, they are more altruistic and prone to engage in caring roles. Women identification with a caregiver role, which Hunter et al. (2004) call "motherhood mentality", puts first the well-being and health of family members, and translated into a higher level of concern for the environment and protective attitudes towards nature (Hunter et al. 2004; Xiao & Hong 2010). So, caring for the environment is the translation of women's altruistic element of care for others. Therefore, according to this argument, women are more concerned about environmental issues, especially when there are health implications for their families. On the contrary, growing up, men are socialized to value more things such as independence and achievement, thus identifying with the "breadwinner" role, who provides for the family's economic well-being. So, the traditional male socialization encourages men to adopt the "breadwinner" role which results in a "marketplace mentality" (Hunter et al. 2004) that leads to a utilitarian view of nature that justifies dominance over the environment. Since they are socialized to be economic providers, men are said to adopt a more instrumental, consumerist mentality toward the environment. Scholars expected the gendered patterns of socialization to shape the dimension of environmental behaviour. Therefore, as men are socialized to be involved in the public sphere of society and in the market place, while women are taught values of the private sphere of family and home, it would be expected that they have a greater likelihood to adopt environmentally-oriented behaviours in the private-sphere in respect with men. In addition, research suggests that the practice of traditional gender socialization, encouraging women to be nurturers and caregivers, whereas men to be more involved in the public sphere, exists cross-culturally (Zelezny et al. 2000). Instead, the political socialization argument emphasises the specific socialization process by which the public sphere of politics has been constructed as a masculine domain and men are in general political more active than women.

4.2.2 Biographical availability and environmental behaviour

Finally, the biographical availability thesis can be defined as "the absence of personal constraints that may increase the costs and risks of movement participation, such as full-time employment, marriage, and family responsibilities" (McAdam 1986). The term cost refers to "the expenditures of time, money, and energy that are required of a person engaged in any particular form of activism". An example of a very low-cost activity is signing a petition, while an example of high-cost activity entailing more time and energy would volunteering to organize among the homeless. According to McAdam (1986), "risk" is very different from cost as an analytic dimension. Indeed, risk refers to "the anticipated dangers-whether legal, social, physical, financial, and so forth-of engaging in a particular type of activity". For instance, the act of signing a petition is always low-cost, since it does not require significant spending of time and energy, but the risk of doing so might be relatively high depending on the socio-political context. On the other hand, volunteering among the homeless may be costly in time and energy but relatively risk-free. The critical point here is that costs and risks in activism are not equal for everyone. In fact, the concept of biographical availability is measured according to employment status, marital status, parental status, and age. For instance, if a person has young children, is married, and is fully employed, he or she will inevitably have more personal constraints restricting his or her participation in any form of activism. Thus, full time employed person who has a family of four to sustain will see his or her time and energy reduced compared to a college student who is neither married nor employed. In other words, personal constraints, and responsibilities such as marriage, family, and full-time employment, structure one's disposable time and shape the costs and risks of social movement participation. If one considers that women are usually responsible for child-care and other domestic work, it is expected that their participation in social movements may be constrained due to these activities, particularly if they are employed full-time. Thus, women's time-consuming domestic responsibilities are expected to hinder their participation in direct activism forms such as developing organization strategies and tactics (Tindall et a. 2003).

4.2.3 Gender and environmentalism: the gender division of labour

In a study conducted in 1992, the scholar Paul Mohai showed that despite greater concern for the environment expressed by women, men were more likely to be activists. In other words, women's low biographical availability is expected cancel out the effects of pro-environmental concerns on their activism. Other research connects environmental concerns with gender division of labour. More specifically, a research conducted by Tindall et al. (2003) on gender, environmental leadership, and environmental concern compares women's and men's participation in a British Columbia environmental movement to examine women's and men's levels of environmental activism and environmentally friendly behaviour. In their analysis Tindall et al. refer to activism as "a specific movement supporting activities that are promoted by environmental organizations", while environmentally friendly behaviour refers to "everyday behaviour that aims to conserve the environment in various ways". The study explores whether female members of environmental organizations are more active than male members and whether these women engage in higher levels of environmentally friendly behaviour. A section of the study concerns the relation between gender division of labour and environmentalism. Differences in pay-checks highlight how gendered division of labour and socialization maintain social inequalities. Men's 'breadwinner' socio-cultural role, allows them to maintain greater power in both the public and domestic spheres while women's "caregiver" role, as the primary responsible for household labour, and child-care, leaves employed women in their daily routines with double duties. In general, Tindall et al. (2003) study argues that this division of labour reinforces men's dominance, giving them superordinate responsibilities, resources, and rewards. Therefore, this unequal division of labour creates ideologies, norms, and stereotypes about the different competencies of men versus women; women are expected to make family obligations their highest priority, opting for a job that is more suited for their nurturing capabilities, while men are socialized to cover ''masculine occupations,'' those that require competitiveness, rationality, and dominance behaviour, which usually imply higher retribution. However, how gender socialization and the division of labour connected to environmentalism? The scholars consider the answer as "an essential irony" since the alleged female greater environmental concern is rooted in their marginal and subordinate position in the gender division of labour (Tindall et al. 2003). Indeed, the North American culture and economy, does not escape the gender socialization argument, according to which females are encouraged to be ecologically benign since their childhood. Thus, the study suggests that the gender division of labour motivates women to place less value on economic instrumentalism and competitiveness. According to this argument, women are more closely related to the environment, but this is due to the gender division of labour in both paid and domestic work which constrains women's biographical availability for activism,

considering that activism mostly takes place outside of the home. On the other hand, much of environmentally friendly behaviour takes place through daily, domestic, and unpaid activities, which in this framework are carried out by women. It follows that women may have more opportunities to engage in environmentally friendly behaviour than men. However, if the gender division of labour leads to greater environmental concerns amongst women in the private sphere, how these environmental concerns translate into actual activism and conservation behaviour? How do women express their environmental attitudes? Concerning this, in their study Tindall et al. (2003), refer to cultural and demographic influences on environmentalism. Drawing from earlier studies on the cultural foundations of new social movements, along with the environmental movement, as forming new values, they connect women's concerns generated by the gender division of labour described above with postmaterialist values. In Western countries, post-materialist value put emphasis on the quality of life, including quality of the environment, instead than on issues like crime control and economic growth, and to place priority on democratic decision making, authentic personal relations, and the nurturing of new social identities. Their study sees an analogy between these values and feminine environmental concerns. These values are connected to women's environmentally friendly behaviour shaped by the gender division of labour that de facto hinders their environmental activism, but at the same time boosts their opportunities to engage in such attitudes. Pro-environmental behaviours, such as taking public transit, recycling, or using a reusable mug, can be undertaken through daily routines both at work and in the home, without extra costs to biographical availability. Thus, environmentally friendly behaviours, contrary to activism, are generally not constrained by biographical availability. Following this rationale, since women on average do a disproportionate share of domestic work, and since much of pro-environment behaviours can occur in domestic work, women's position in labour division may reinforce their engagement in environmental attitudes (Tindall et al. 2003). In brief, the study found that the women involved in British Columbia environmental movement engaged in more environmentally friendly behaviours than men members but despite this they were not more active. These results suggest that daily conservation concerns are more salient to women, but their environmental concern does not correspond to a greater level of activism. Although this finding may seem at odds with the ecofeminist thesis, they are largely consistent with the theoretical concepts introduced above. Indeed, since environmentally friendly behaviour can be undertaken in the context of daily routines, the factors that constrain activism, such as the biographical availability, do not have a similar impact on environmentally friendly attitudes. So, the greater time that women who were part of the study spent on household labour and pro-environment activities reduced their time for activism, relative to men. This is in line with the theoretical concept of biographical availability. However, the authors highlight that women's

environmentally friendly behaviour should not be considered as a mere by-product of their domestic duties. Indeed, in their theoretical model, women's activism appears to reflect and reinforce their commitment to environmentalism, which in turn facilitates their participation in environmentally friendly behaviour. According to Tindall et al. (2003), "female movement participants, more than their male counterparts, make connections between different types of environmentalism and experience these activities as mutually reinforcing. Their environmentally friendly behaviour, much more than men's, was linked to cultural values and movement activities, and this may illustrate how they strive to be consistent in these different dimensions of environmentalism". However, once again, results on the relation between biographical availability and social movement participation have been inconsistent and sometimes they even contradicted theoretical expectations. For example, the theoretical model proposed by Tindall et al. (2003), namely that women due to their reduced biographical availability tend to be more concern with the environment inside the home, cannot be applied to a study conducted in China. Indeed, Xiao and Hong (2010) study on the gender differences in environmental behaviours in China did found a pattern of gendered environmental behaviours but reversed. The results on an urban Chinese sample suggested that parenthood was a limiting factor for both women and men in the public sphere. Moreover, the study found that men, not women, expressed higher levels of environmental concern and that women's higher levels of participation in private environmental behaviours were linked to the unequal division of domestic duties as part of the difference in daily routine duties between men and women. In sum, Xiao and Hong (2010) study, revealed that gendered differences in environmental behaviours in urban China followed largely the same patterns as in the West. However, the underlying dynamics turned out to be different. Consistently with studies in Western setting, Chinese women showed higher participation in environmentally oriented behaviours inside the home. However, such a gender gap in environmental behaviours was not due to gendered differences in environmental concern, because Chinese women declared lower levels of concern than Chinese men. This finding is the opposite of most Western studies and provides an understanding of the cross-cultural distinctions in environmental perceptions, concerns, and behaviours (Xiao & Hong 2010). To conclude, gender may have different effects on activism versus environmentally friendly behaviour. From what has been reported, it results that the effects of gender on activism are somewhat contradictory. If on the one hand, according to the various strands of environmental sociology and ecofeminist, women are more active than men for multiple social, cultural, structural, and biological reasons, one will be prompted to expect that women will be more active in environmental activism. On the other hand, the social movements literature suggests that various cultural factors that may impede women's involvement in environmental movements (Tindall et al. 2003). As showed beforehand, for instance, some studies have found men to be more

active than women in various social movements because women's roles constrained their available time and commitments. Notwithstanding the time and space in which the gender-environment linkage is taken into analysis, these results confirm the claim that the focus should be on the systemic power inequities that characterise discourses about women and the environment rather than on a mere assessment on the impacts of climate change that categorize women as either victims or agents of change. Thus, if gendered power asymmetries are not addressed prior to constate the gendered impacts of climate change, the result will always be a vicious cycle that reiterates the same problems and challenges.

5. Conclusive remarks

It is now established as a fact that climate change is a risk factor for the lives and the fundamental rights of millions of people across the world, in ways that reflect social and economic inequalities within their societies. We know that climate change is global, but the effects do not affect everyone in the same way. The climate crisis exacerbates vulnerabilities and inequalities linked to an unequal distribution of access to resources and risk allocation, and the worst effects always weigh on the poorest part of the world population. More or less evident is the fact that women are among the groups most exposed to the consequences of this phenomenon and some simple considerations help to perceive the global scope of the social repercussions of climate change. The gendered impacts of climate change are indeed present in many "areas", from agriculture and food production, to the impacts of natural disasters, energy use and production, water scarcity, and the disruption of the marine ecosystem. Notwithstanding different cultural contexts, women in rural scenarios, are heterogeneously disadvantaged due to the lack of access to economic resources and cultural, religious, or more generally, social hindrances. Indeed, climate change is not just a question of reducing pollutants. Climate change imposes itself amongst the greatest political and social conditions of our era and is inseparable from the demand for social justice that is articulated in time and space, between the North and the South of the world, between generations of yesterday and tomorrow. Thus, climate change is both an intergenerational and distributive justice issue. So, in order to promote forward-looking policies, it therefore seems essential to tackle global inequality and climate change at the same time. Without the empowerment of women, process stagnates, and important inputs are lost for everyone, especially in a time of difficult recovery. The contribution of women still shows more or less formal limits for a complete use of women's potential, not only in the field of research, but also at the entrepreneurial level and support for any initiative that can "transit" each sector towards a true and effective sustainability. The concept of sustainability cannot be separated from that of equity: the two aspects interrelate and influence each other. Indeed, inequalities only make some realities more unsustainable and create social unsustainability. Likewise, climate change creates new inequalities, and, in turn, these inequalities amplify the effects of climate change. The linkage between environmental protection and the fight against global warming, on the one hand, and the empowerment of women in society and women's work, on the other, is anything but new within international institutions, still has not been really effective throughout the years. The United Nations Framework Convention on Climate Change (UNFCCC), the world's most important actor in this field, originally did not even mention the issue of gender inequality. Thanks, however, to the work of many lobbyists and women lobbyists who have been constantly working on this in the past, the situation has changed. As a proof of these efforts, in 2012, the link between gender and climate

became a staple on the agenda of the Annual Conference of Parties (Cop), the governing body of the international negotiation process for climate change. A working group on this issue has been formed within the UNFCCC secretariat and governments have been asked to appoint gender focal points, to represent the point of reference within their organisations and to report on progress in gender equality and the degree of consideration of gender impact in policy making. Therefore, gender issues have become part of the climate change debate in recent years. This has occurred in a general context where the gender discourse is increasingly analysed in relation to issues such as poverty and sustainable development. The term gender mainstreaming is now a commonly used by many politicians, consultants, and scholars. Several authors, however, complain of a generalized misuse of the term, now associated with a bureaucratic tool for its own sake. This in part generates a mechanism in which the rhetorical effort for gender equality is often disregarded in practice. On the other hand, the misuse of terms that revolve around gender issues risks diverting attention from two fundamental objectives: the questioning of the degree and modalities of access and control of resources by women; and a thorough examination of the power equations that characterize arenas other than the home, to the community, and the state. Therefore, the current assessment is a partial failure of the attempt to mainstream gender issues in the debates on climate change and sustainable development. It is also true that there are fundamental limits that complicate the picture. First of all, since the seventies, the discourse on climate change has largely been the prerogative of the world of natural sciences. The social dimension of the problem has for a long time been ignored, as well as its declinations at the community level. On the other hand, there is a dominant view of the stereotypically "masculine" question, which embraces new technologies, large-scale instruments, complex modelling and overlooks the impact and the smaller-scale solutions, at a local level, which benefit the everyday lives of men and women. Another important element is that most of the research conducted on the gender-climate link can be traced back to professionals and researchers working in development agencies, both local and international, and is therefore characterized by a materialistic approach that aims to inform the political objectives and the formulation of the programs. Moreover, some scholars have observed that the debate cannot be limited to the sphere of policy making but must be elaborated at a broader level also in a theoretical sense. Indeed, scholar argue that feminist research lacks a sociological investigation of the gender declinations of climate change. There is also no theoretical agenda on the issue of how to borrow from and overcome the ecofeminist debate to embrace today's conceptual challenges. Ecofeminism, for its part, focusing on the relationship between gender oppression and excessive exploitation of natural resources, has in some way revealed the complex power structures that are at the origin of gender vulnerabilities. However, it has been stigmatized as a spiritualist and essentialist theory and has had very limited influence on studies conducted in other

areas of research and practice. A third important element is the risk of generalizing and uncritically considering some assumptions. The same concept of gender is not static, but is contingent on factors such as age, social class, culture, history. For example, assuming that all women in developing countries are vulnerable to climate change can contribute to reinforcing certain stereotypes and perpetuating the status quo rather than generating social and institutional change. The notion of "feminisation of poverty", in addition of being assessed as inconsistent by several studies, may also lead to a heavier burden for women and girls in their efforts to achieve sustainable development and poverty reduction, while lightening the responsibility of those who at present would have the power and capacity to adopt the necessary changes. According to Resureccion (2013), today's literature on gender and climate change tends to reiterate an idea of women as vulnerable, if referred to the context of the South of the world, or virtuous, if referred to that of women in the North of the world. The first are forced to suffer the impact of climate change to a greater extent, the second have a greater environmental awareness and advocate positive changes in the family and community. Not only does this help to strengthen North-South opposition stereotypes, but it again focuses attention on concepts of vulnerability and virtue and looks away from power inequalities in the decision-making processes of environmental management. The dualistic division between vulnerable or virtuous women is exemplified by the frequent political debates surrounding the women in the North who are leaders in supporting climate action. These debates are increasingly taking place on social media platforms were these female leaders are being attacked with increasing regularity. These attacks should be considered as a problem not only for the planet, but also for achieving gender equality and more inclusive democratic policies. Verbal violence and threats of violence against female leaders are certainly not new. In fact, women in politics suffer violence, sexism, and sexual harassment because of the threat they represent working in a field dominated by men. Sexist attacks and threats of violence serve to discredit women's ideas and delegitimize their power, with the eventual aim of excluding them from the public sphere. Attacks against female climate leaders, in particular, can be further explained by the relationship between misogyny and climate denial. Climate denial has also been linked to the traditional theories of masculinity. Several studies show that climate deniers are more likely to adhere to older forms of modern industrial masculinity that have helped push society toward industrialization, mechanization, and capitalism. These versions of heterosexual masculinity seem to be based on domination and exploitation, rather than conservation, or care for the environment. In fact, there is a growing body of research that connects climate denialism to gender reactionism. An example are researchers at the Chalmers University of Technology, in Sweden, who established the first research centre for climate denial studies, with the purpose, among other, to link climate sceptics and anti-feminist, far-right individuals. The rise of Greta Thunberg, for example, has generated not

few adverse reactions amongst conservative men. Indeed, the young activist has been the foremost target famously for US President Donald Trump and others European nationalists. This assumption does not intend to argue that everyone who is on the right-conservative side of the political spectrum is automatically anti-feminist or anti-environmentalist. However, evidence suggests that the majority who engages in such attitudes are indeed embedded in such reactionary stances motivated by anti-feminist, right-wing nationalist mindset, and amongst these people there can be women as well. Thus, female leaders who promote climate policies are therefore doubly menaced by those who have misogynistic attitudes. This double menace stems from simply being a woman in a powerful position and, by marrying policies that directly challenge the traditional norms of masculinity. The disapproval aimed at women who are climate leaders serves to safeguard male dominance by targeting women who defy the patriarchal social order. The result is a toxic mixture of masculinity directed at women climate leaders through sexist attacks and threats of violence. In view of the above, one might easily assume that women are indisputably more concerned with the environment with respect to men. Thus, that gender does influence concern for the environment and involvement in environmental activism; in other words that women care more than men for the environment. Also, regarding these questions there is a significant body of research aimed at providing answers. Indeed, the notion that women have different environmental values has been studied for decades. Explanations for this gender gap in environmental concerns have referred to socialization patterns that render women more prone to care for the environment, more risk adverse to perceived environmental hazards, and more concerned with safeguarding others' health. However, research on the issue has showed that despite women's pro-environmental attitude, they are often less likely to participate in public environmental behaviours, being it activism or politics. An ecofeminist theorist would respond that women and nature are culturally and historically associated and that this has consented the domination of both nature and women. Thus, sexism and environmental degradation mutually reinforce themselves. On the other hand, according to a sociological perspective, the explanation for women's lack of engagement in public environmental behaviour is due to the gendered division of labour that constraints their biographical availability, meaning that personal constraints, and responsibilities such as marriage, family, and full-time employment, structure one's disposable time and shape the costs and risks of social movement participation. If one considers that women are usually responsible for child-care and other domestic work, it is expected that their participation in environmental public activities may be constrained due to these activities, particularly if they are employed full-time. Thus, if gendered power asymmetries are not addressed prior to constate the gendered impacts of climate change, the result will always be a vicious cycle that reiterates the same problems and challenges. To conclude, the "climate subjection of women" manifests itself in different shapes. Women are, indeed,

more vulnerable to environmental shocks due to their social and economic disadvantages; they are often under-represented in the climate discussions and when they stand out from the "pack" they are assessed as either too young, too unexperienced or even as foolish. In the current environmental discourses if you are a women you can be either a vulnerable victim of the events, because you are unfortunately poor; or you can be an environmental saviour taking the blame for the North's eco-sins. It is therefore necessary to bear in mind the need for field studies that address specific contexts. At the same time, gender-disaggregated data, both quantitative and qualitative, are needed to fully understand the complexity of existing problems with the current gender-environment linkages and to develop more just, gender-sensitive climate policy actions.

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SUMMARY

As a matter of fact, climate change is advancing at an outstanding pace, making life on Earth more dangerous, causing profound effects on human livelihoods and natural ecosystems. Indeed, changes in temperatures of land and water surface are increasing both the frequency and the intensity of extreme weather-related hazards, including droughts, fires, and floods. Climate Change is a non-discriminatory phenomenon which affects everyone. However, due to different social roles, cultural, and economic implications women and men experience its impacts disproportionally. Indeed, both vulnerability and adaptive capacity to climate change will vary considerably depending on social, economic, political, and cultural implications. The adverse effects of climate change impact women's livelihood under many aspects. This is so because at the global level, especially in rural communities, women represent the majority of who are engaged and responsible for reproductive tasks in the household, agriculture production, fetching water, timber, or other foraging activities. Thus, climate-induced disasters exacerbate entrenched gender inequalities. However, gendered climate impacts should be considered in relation to the underlying societal dynamics such as social status, poverty, power, and access to and control over resources. If this effort is not implemented, one might run the risk of reproducing gender roles and negative stereotypes, further exacerbating gender inequality in relation to climate change. The gendered impacts of climate change are indeed present in many "areas", from agriculture and food production, to the impacts of natural disasters, energy use and production, water scarcity, and the disruption of the marine ecosystem. Indeed, climate change and the subsequent increases in frequency and intensity of extreme weather hazards, have adversely impacted food security and terrestrial ecosystems and contributed to desertification and land degradation. This has great impact on agriculture and food production. One-fourth of all economically active women at the global level are engaged in agriculture. Women make up the 43% of the global agriculture force and of that in developing countries, while they comprise half or more of the agricultural labour force in many Asian and African countries. As a result of reductions in crop yields, food distribution within households will be massively affected, potentially activating gender unequal nutritional outcomes. The decrease in agricultural yields due to climate variability will increase even more the labour time spent in such activities. The contribution of women to agricultural and food production and preparation is undoubtedly significant. However, they bear the disproportional burden of the effects of climate change. Indeed, due to their heavy involvement in agricultural production and the management of natural resources, rural women depend on the ecosystem for food security. Moreover, increased poverty and food insecurity will also cause problems relating to anaemia, common in pregnant women, and health risks accentuated by the paucity of resources in both pre- and post-natal care. Agricultural vulnerability to climate change depends on cropping practices and

access to land. Female farmers control less land and livestock with respect to their male "colleagues". This entails that adaptive capacities to the impacts of climate change are clearly not gender- sensitive. Also, gender gaps in access to land and legal rights to land resources are significantly present in many countries. Women in rural contexts are usually given the task of fetching water; as a result of increasing droughts, they have to walk greater distances to collect water, which in turn means that their already substantial workload further increases. The time women and girls spend on water collection has important effects on their lives, diminishing their ability to control how to spend and invest their time in other activities, this translates into an increasing likelihood of missing school. Increasing water shortages are directly linked with exacerbated health and sanitation concerns for women. Thus, health threats related to global warming face women with more immediate health risks than men, due to their role in the gender division of labour. Also, deforestation will affect the livelihoods of both women and men. The impacts will be different because of important gender differences in the extent of dependence on forests to sustain livelihoods. In fact, poor women depend more than poor men on common pool resources such as forests due to their lack of access to private land. This can result in food insecurity, low resilience to disasters, and environmental change as well as lower incomes. Thus, to fulfil their responsibilities as household managers, women are disproportionately affected by the depletion of forests. In addition, the depletion of natural resources should be coupled with land grabbing, the expropriation of land for commercial purposes that further exacerbates women's climate subjection. Concerning gendered differences in disasters mortality, these are directly linked to women's economic and social rights; indeed, in societies where women and men enjoyed equal rights, disasters cause the same number of deaths in both sexes. The social consequences of disasters exceed women's coping capacities and thus expose them to a higher vulnerability to such hazards. There are three major causes explaining why female life expectancy is systematically and disproportionally affected by natural hazards. First, biological, and physiological differences between men and women are important when it comes to a disaster's physical impact. Women find themselves less equipped to withstand the physical impact of a natural hazard in terms of physical strength and body size, especially if they are in the final stages of pregnancy. Vulnerability to natural hazards is also partly determined by acquired coping skills which are predominantly taught to and done exclusively by men, while social norms and role behaviours are extremely important in assessing women's clear disadvantage in rescue attempts. Such norms and roles are often a by-product of unequal power relations between men and women. The third cause for female higher mortality in natural disasters is the discriminatory access to resources and temporary breakdown of social order after the disaster occurred. In fact, in the aftermath of a natural disaster the pre-existing discriminatory processes are exacerbated and detrimentally affect and intensify women's and girls' health. Another

major issue for women after a disaster is the increase in domestic and sexual violence due to disaster-induced stress, alcohol abuse, and the breakdown of law and order. Moreover, significant implications also stem from energy production and consumption that are critical drivers of livelihoods, economies, and environmental conditions, considering that fossil fuel burning is the largest source of the anthropogenic greenhouse gas emissions. The amount of pollution coming from non-renewable energy production has harmful consequences for human health as well as ecosystems and biodiversity. These environmental risks are not experienced and distributed equally across societies. Indeed, the exposure to these contaminants intersects also with gender, magnifying disadvantages. The rely on solid fuels and other unclean fuels for household use contributes to high levels of air pollution within and outside the household. Women are those who spend more time cooking than men, and in the case of hazardous fuels and stoves they are more exposed to physical burns and toxic smoke from cooking with solid fuels. In addition to the adverse health effects associated with indoor air pollution, women and girls are forced to travel longer distances when other energy resources are scarce or unavailable. This is particularly dangerous for women, especially in conflict settings, who are more vulnerable to harassment and sexual violence. Sea level rise too is particularly problematic for women in coastal communities. Indeed, evidence suggests that environmental change affecting marine systems has gendered impacts. Women comprise 47 per cent of the total global fisheries workforce and most importantly women are those who are in charge of household nutritional security. Thus, when fish resources are scarce, women are obliged to renounce to nutrients, or take on additional job (which often involves prostitution therefore health implications) considering that they have fewer coping mechanisms and financial assets to face these challenges. Women, especially pregnant women, experience other health problems in relation to the risks associated with the ingestion of methyl mercury, plastic, and chemical components ingested by fish that result in breast cancer and reproductive disorders. Moreover, women are less likely to get credit to buy adequate crops in land allotments, they are more likely to be allocated marginal lands that are at higher risk of climate impacts. By 2018, the principal public climate financial funds had an explicit gender policy and/ or gender action plan. However, these mechanisms still lack adequate engagement paths to provide sustainable participation at the grassroots level for women's organizations, advocacy groups, or individuals. Due to these entrenched socio-cultural systems, women face the negative stigmatization when they decide to leave their home for pursuing professional activities. Given the differences that women and men have in adaptive and mitigative capabilities, financing instruments and mechanisms should take them into account in funds designing, and project financing. If properly designed and executed, climate financing mechanisms have a double potential to make climate change responses more effective and, simultaneously, improving women's lives. Nevertheless, for

such strategies it is required that women have decent, fair access and control over their financial resources.

Problems such as deforestation, pollution due to the use of dirty fossil fuels, the disruption of the marine ecosystem, natural disasters, water pollution, and the decrease in agricultural yields bring significant gendered consequences. Thus, bringing light on these issues helps us understand how women's socio-political-economic status is interconnected to contemporary environmental problems. Feminist environmental philosophy has focused on this through the claim that "nature is a feminist issue". A branch of this philosophical strand is ecofeminist philosophy that relies on the concept of gender to investigate the links between humans and the environment. The common thread which unites the various scholars in ecofeminist philosophy is the conviction that life on earth is a network of interconnections and that no natural hierarchy exists. Rather that such hierarchy is the result of humans' projection onto nature, which is used to justify oppressive forms of domination, including sexual domination exercised within an oppressive patriarchal conceptual framework established on oppositional dichotomies that associate women and nature as inferior to men and culture. What lies at the very heart of this oppositional dualism is the experience of the two oppositional worlds of the feminine and the masculine. There are many ecofeminist perspectives. The care perspectives focus on an alleged superior female awareness of the process of environmental degradation and see women as earth-carers due to their biological motherhood characteristics. By this, it romanticizes the symbolic role of motherhood further exacerbating exploitation based on women's care duties within masculinist and misogynist cultures. Instead, materialist ecofeminism links institutions such as power, property, and labour as sources of dominance over women and nature due to the productive and reproductive roles of women. Materialist views reflect the material analysis of the creation and the burden of male domination. Indeed, materialist ecofeminism rejects women-nature mystic relations as the basis of its thinking since women's identification with the natural world is nothing more than the evidence of the material exploitation of women's work. Instead, cultural-spiritual ecofeminism conceives rural women as depositary of the original knowledge of the environment derived from centuries of familiarity with the Earth. This special connection has been disrupted by Western masculinist, patriarchal model which excluded women from its organisation and created a form of "maldevelopment" which led to a capitalist approach to nature. Other ecofeminist theories focus on language; they argue that the language we use reflects our view of the world and ourselves, or rather our conceptual framework. Language becomes problematic because it creates concepts of women, animals, and nature that contribute to the exacerbation of oppressive conceptual frameworks and justify the dominations of women, animals, and nature. These approaches emphasise symbolic connections between sexism and naturist language that naturalize women and feminize nature. The

"animalization" of women and vice versa is also reflected in the vegetarian ecofeminist approach which connects speciesism to sexism and argues that androcentric power controls access to food consumption, creating control over animals and women's bodies. All this produces a mythologization of male strength and a false assertion of female sexual freedom, attributable to male "consumption" of female sexuality which degenerates in the culture of violence. Others besides feminist theorists reflected on the relationship between humans and nature. Distancing themselves from ethical anthropocentric philosophy, these theories focus on the moral considerations of non-human beings. In the discussion of what might be assessed as environmentally good or bad, they differ in terms of how they conceive the intrinsic value of non-human beings. Specifically, the deep-ecology perspective focuses on ecological wholes such as species, populations, biotic communities, and ecosystems and see in these collective entities the only locus of intrinsic value. Despite the strict link existing between deep ecology and ecofeminism, the former has been criticized by feminist scholars for having ignored the androcentric roots of anthropocentrism and assessed as a conceptually flawed environmental philosophy for ontologically separating humans and nature in its own principle of self-realization. Notwithstanding these frictions, Western environmental ethics, both feminist and non-feminist, assume the opposite of what canonical philosophy argues, namely that non-human animals and nature do have moral relevance and thus humans are responsible and morally obliged towards them.

Ecofeminism, for its part, focusing on the relationship between gender oppression and excessive exploitation of natural resources, has in some way revealed the complex power structures that are at the origin of gender vulnerabilities. However, it has been stigmatized as a spiritualist and essentialist theory and has had very limited influence on studies conducted in other areas of research and practice. Since the Earth Summit held in Rio de Janeiro in 1992, the feminist presence became intrinsic to the environmental agenda, and women's defence of nature and the environment became a fixed "storyline" within global forums. This has been stimulated by two main strands: "women, environment, and development" (or WED) and a the cultural-spiritual variant of ecofeminism. The assertion that women from the global South were the hardest hit by the increasing environmental degradation gained significant currency, and therefore women started to be acknowledged as the principal caretakers of the environment. However, the maxim linking women to the environment came under question by some other feminist scholars. Their argument rested on the assumption that slogans that drew attention to women as the environment's victims and caretakers did not match complex and daily realities of power inequalities. This made gender identity as somewhat fixed. Some of the main critics were, first that policy planning based on fixed roles might eventually be counter-productive for women because it risks treating them as "key assets" in resource conservation

initiatives on the assumption of their caretakers' roles. Women, environment, and development translations in policy relies on simplifications of women's relation with the environment and natural resources, assuming their attributes as fixed and disassociated from social relationships of power structures. Second, WED and ecofeminism policy translations decontextualize women's position in environmental realities by overshadowing the institutional dynamics which lie behind complex social, gendered relationships. Three, WED and ecofeminism risk to "victimize" rural women from the South by conveying their images as walking longer distances in their daily households' tasks as resources are gradually depleted. Fourth, the attention posed to women's knowledge of the environment is not even analysed as deriving from a position of subordination, or as an obligation stemming from a systemic power structure. Finally, the fifth critical standpoint argues that women-environment linkage obliviates men's contribution to resource use and management from the bigger picture. Despite these stereotypes' critiques, women-environment linkages persisted in global discourses on the environment and climate change. The misuse of terms that revolve around gender issues risks to divert attention from two fundamental objectives: the questioning of the degree and modalities of access and control of resources by women; and a thorough examination of the power equations that characterize arenas other than the home, to the community, and the state. Literature on gender and climate change tends to reiterate an idea of women as vulnerable, if referred to the context of the South of the world, or virtuous, if referred to that of women in the North of the world. The first are poor and forced to suffer the impact of climate change to a greater extent, the second have a greater environmental awareness and advocate positive changes in the family and community. Not only does this help to strengthen North-South opposition stereotypes, but it again focuses attention on concepts of vulnerability and virtue and looks away from power inequalities in the decision-making processes of environmental management.

The dualistic division between vulnerable or virtuous women is exemplified by the frequent political debates surrounding the women in the North who are leaders in supporting climate action. Attacks against female climate leaders, in particular, can be further explained by the relationship between misogyny and climate denial. Climate denial has also been linked to the traditional theories of masculinity. Several studies show that climate deniers are more likely to adhere to older forms of modern industrial masculinity that have helped push society toward industrialization, mechanization, and capitalism. These versions of heterosexual masculinity seem to be based on domination and exploitation, rather than conservation, or care for the environment. In fact, there is a growing body of research that connects climate denialism to gender reactionism. An example are researchers at the Chalmers University of Technology, in Sweden, who established the first research centre for climate denial studies, with the purpose, among other, to link climate sceptics and anti-feminist, far-right

individuals. The rise of Greta Thunberg, for example, has generated not few adverse reactions amongst conservative men. Indeed, the young activist has been the foremost target famously for US President Donald Trump and others European nationalists. This assumption does not intend that everyone who is on the right-conservative side of the political spectrum is automatically anti-feminist or anti-environmentalist. However, evidence suggests that the majority who engages in such attitudes are indeed embedded in such reactionary stances motivated by anti-feminist, right-wing nationalist mindset, and amongst these people there can be women as well. Thus, female leaders who promote climate policies are therefore doubly menaced by those who have misogynistic attitudes. This double menace stems from simply being a woman in a powerful position and, by marrying policies that directly challenge the traditional norms of masculinity. The disapproval aimed at women who are climate leaders serves to safeguard male dominance by targeting women who defy the patriarchal social order. The result is a toxic mixture of masculinity directed at women climate leaders through sexist attacks and threats of violence. In view of the above, one might easily assume that women are indisputably more concerned with the environment with respect to men. Thus, that gender does influence concern for the environment and involvement in environmental activism; in other words that women care more than men for the environment. Also, regarding these questions there is a significant body of research aimed at providing answers. Indeed, the notion that women have different environmental values has been studied for decades. Explanations for this gender gap in environmental concerns have referred to socialization patterns that render women more prone to care for the environment, more risk adverse to perceived environmental hazards, and more concerned with safeguarding others' health. However, research on the issue has showed that despite women's pro-environmental attitude, they are often less likely to participate in public environmental behaviours, being it activism or politics. An ecofeminist theorist would respond that women and nature are culturally and historically associated and that this has consented the domination of both nature and women. Thus, sexism and environmental degradation mutually reinforce themselves. On the other hand, according to a sociological perspective, the explanation for women's lack of engagement in public environmental behaviour is due to the gendered division of labour that constraints their biographical availability, meaning that personal constraints, and responsibilities such as marriage, family, and full-time employment, structure one's disposable time and shape the costs and risks of social movement participation. If one considers that women are usually responsible for child-care and other domestic work, it is expected that their participation in environmental public activities may be constrained due to these activities, particularly if they are employed full-time. Thus, if gendered power asymmetries are not addressed prior to constate the gendered impacts of climate change, the result will always be a vicious cycle that reiterates the same problems and challenges. To conclude,

the "climate subjection of women" manifests itself in different shapes. Women are, indeed, more vulnerable to environmental shocks due to their social and economic disadvantages; they are often under-represented in the climate discussions and when they stand out from the "pack" they are assessed as either too young, too unexperienced or even as foolish. In the current environmental discourses if you are a women you can be either a vulnerable victim of the events, because you are unfortunately poor; or you can be an environmental saviour taking the blame for the North's eco-sins. It is therefore necessary to bear in mind the need for field studies that address specific contexts. At the same time, gender-disaggregated data, both quantitative and qualitative, are needed to fully understand the complexity of existing problems with the current gender-environment linkages and to develop more just, gender-sensitive climate policy actions.