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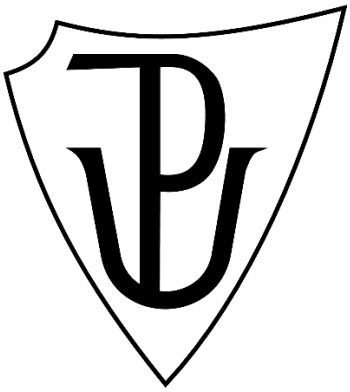

Bc. Veronika Miklíková

Climate Change and its Ethical Perspective

Diploma thesis

Supervisor: Mgr. et Mgr. Tomáš Daněk, Ph.D.

Olomouc, 2022

Declaration

Hereby, I declare in lieu of oath that this diploma thesis focused on the topic Climate Change and its Ethical Perspective was written by myself under the professional supervision of Mgr. Tomáš Daněk, Ph.D. All information derived from the work of others has been acknowledged in the text and the list of references is given.

Olomouc, 3rd June 2022 ……..

Signature

Acknowledgement

I would like to express my gratitude to my supervisor Mgr. Tomáš Daněk, Ph.D. for inspiration, guidance and patience, and my family, boyfriend, close friends and colleagues for their everyday unlimited support and positivity.

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Zásady pro vypracování

Nedílnou součástí diskuse o probíhající klimatické změně je také její dimenze filozofická, morální a etická, kterou je nutno brát v potaz pro její úspěšné řešení. Gardiner shrnuje povahu klimatické změny pojmem „perfektní morální smršť", kterým se snaží ukázat, že se jedná především o etický a morální problém. Diplomová práce se bude formou analytické studie věnovat klimatické změně a její etické perspektivě a tématům s ní spojeným, tedy lidským právům, mezinárodní/globální spravedlnosti, mezigenerační etice, individuální a kolektivní zodpovědnosti, vědecké nejistotě, geoinženýrství, ale také např. současnému trendu ve světové politice, neantropocentrickému a feministickému pojetí klimatické etiky.

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Abstract

Philosophical, moral, and ethical perspectives play inseparable role in tackling climate change, the so called "perfect moral storm". This diploma thesis presents an analytical study of climate change and chosen ethical dimensions. Firstly, an overview of the current state of climate change is given based on the latest IPCC Sixth Assessment Report AR6. Then, focus is put on human impacts of climate change in relation to human rights and gender. Afterwards, the concept of Anthropocene and its relation to climate change and to climate ethics is discussed. In second part, I then present the heterogenous body of climate justice (CJ) situated into three branches – CJ as a social movement; CJ in negotiations, policy, and governance; and CJ as a normative inquiry. Following part of the thesis is dedicated to analysing CJ as a normative inquiry, i.e., climate ethics, where I present two families of views – mainstream anthropocentric climate ethics and non-mainstream non-anthropocentric climate ethics and ethics drawing from ecofeminist decolonial theory.

Key words: climate change, climate ethics, human rights, gender, Anthropocene, climate justice, non-anthropocentric climate ethics

Abstrakt

Filozofická, morální a etická perspektiva představují nedílnou součást diskuze o probíhající klimatické změně, která bývá označována jako "perfektní morální smršť". Diplomová práce se formou analytické studie věnuje klimatické změně a vybraným etickým dimenzím. Nejprve je na základě poslední, tj. Šesté hodnotící zprávy IPCC představen současný stav klimatické změny, na který navazuje diskuze dopadů klimatické změny na člověka s ohledem na lidská práva a gender. Následuje představení konceptu Antropocén, jeho propojení s klimatickou změnou a diskuze implikací pro klimatickou etiku. V druhé části se práce zaměřuje na heterogenní koncept klimatické spravedlnosti rozdělený do tří různých oblastí – (1) sociálního hnutí, (2) vyjednávání, politik a vládnutí, a (3) klimatické etiky. Závěrečná část práce je věnována klimatické etice, kde představuji jak mainstreamovou klimatickou etiku vyznačující se antropocentrismem, tak neantropocentrické a ekofeministické dekoloniální pojetí klimatické etiky, které nejsou v mainstreamové klimatické etice přítomny.

Klíčová slova: klimatická změna, klimatická etika, lidská práva, gender, Antropocén, klimatická spravedlnost, neantropocentrická klimatická etika

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Acronyms

AI – artificial intelligence

AR – Assessment Report

COP – Conference of Parties

EGD - the European Green Deal

GHGs – greenhouse gases

GND – the US Green New Deal

IPCC – Intergovernmental Panel on Climate Change

JTM – Just Transition Mechanism

L&D – Loss and Damages

NDCs – Nationally Determined Contributions

NGO – non-government organization

QALY – quality-adjusted life year

SDGs – Sustainable Development Goals

UNEP – United Nations Environment Programme

UNFCCC – United Nations Framework Convention on Climate Change

WG – Working Group

WMO – World Meteorological Organization

Introduction

Stephen Gardiner, a prominent climate ethics philosopher describes climate change as a perfect moral storm, which poses limits to our capability to act morally and ethically. Therefore, philosophical, moral, and ethical perspectives play inseparable role in tackling climate change. We are constantly targeted with stream of information on how desperate the situation regarding climate crisis is. Reading the latest Sixth Assessment Report published in parts in 2021 and 2022 by IPCC makes it certain that we are living in dramatic times with uncertain future, which poses several ethical issues. Some say that we live in Anthropocene, the age of humankind, however some critics rather call for more appropriate conceptualization and terminology such as Capitalocene, Plantationocene, or even Manthropocene – although some envision the future of Symbiocene.

Knowing the science and worrying facts on the unevenly distributed impacts of climate change, we are then confronted with ethical questions of who is responsible for climate change? Should they be held accountable? Who are the most vulnerable communities and how does it project in international climate policy and negotiations with unequal structure of power dynamics? Is there any ethical limit to the scale and unwanted side effects of policies that should be placed to ensure we do our best at mitigating the impacts of climate change? Are we also morally obliged to consider nature and nonhuman beings, which are threatened by climate change too? And if so, on what basis? Gardiner gives us an answer to the question of why we do not act with the urgency needed, even if we know that climate change is already making the lives of billions of people unliveable. So, what now?

Since 1990s, prominent ethicists and philosophers have devoted their time to provide sufficient answers to such questions and ideally make a case for morally guided ethical behaviour which could be embraced on a large scale at several levels (individuals, states, corporations, etc.) to lessen the impacts of climate change, a problem which cannot be stopped now, and we can only mitigate its effects. However, climate ethicists have been met with criticism – firstly, for their theories being not effective and for the disconnection between the normative

climate justice approach and the climate justice movement, and secondly, for not acknowledging issues intersectionally, and not listening to Indigenous voices. Also, it has 'happened' that conventional mainstream established ethical theories on climate change have largely omitted the moral significance of non-human members of biotic community, which may or may not have had an impact on the course of international climate policy. As such, ethical dimension of climate change is also discussed by non-anthropocentric theorists, but it is also a raison d'être of climate justice movements present across the globe.

Objectives and Methodology

This diploma thesis presents an analytical study of climate change and its chosen ethical dimensions. Its aim is to examine the complexities of climate change being an ethical, moral, and philosophical issue, while also focusing on the concept of Anthropocene and its implications for climate ethics, which tend to be primarily anthropocentric. I do not intend to provide an exhaustive study of ethical perspective of climate change nor the multidimensional concept of climate justice, especially when discussing mainstream anthropocentric climate ethics.

The thesis consists of two main parts. In the first one, I start with an introductory chapter describing the current state of climate change in order to emphasise the severity of the situation and to make sense of the ethical and moral concerns related to it. I am drawing from the latest Sixth Assessment Report (AR6) published by Intergovernmental Panel on Climate Change (IPCC) from 2021 and 2022, as it serves as the most up to date comprehensive assessment of the contemporary scientific knowledge. In this chapter I also present a characteristic of the IPCC. In next chapters 1.3 and 1.4, the focus is put on human impacts of climate change in relation to human rights and gender. Afterwards I focus on Anthropocene – its definition is given as well as criticism and its implications for climate ethics from both anthropocentric and non-anthropocentric point of view.

In second part of the thesis, I shall present the heterogenous body of climate justice (CJ) which I situate into three branches – CJ as a social movement; CJ in negotiations, policy, and governance; and CJ as a normative inquiry, i.e., climate ethics. In chapter 2.1.2, I discuss how is climate justice articulated in negotiations and outcomes of COP21 and COP26. Chapter on just transition is included as well. Following part of the thesis is dedicated to analysing CJ as a normative inquiry, i.e., climate ethics, where I present two families of views – mainstream anthropocentric climate ethics and climate ethics outside the mainstream discussion. Chapter 2.2 is dedicated to mainstream climate ethics where I cover topics such as distributive vs. corrective justice; egalitarianism vs. basic rights; global justice vs. intergenerational justice; geoengineering; individual moral obligations; and corporate responsibilities. Then, discussion of the impact and effectivity of climate ethics is provided in chapter 2.2.4, where I focus

on proposal of climate engaged ethics. Chapter 2.3 is dedicated to non-mainstream climate ethics, where I briefly attend to the calls for intersectional, decolonial, and ecofeminist climate ethics. I then proceed with the development of non-anthropocentric climate ethics and provide an overview of the most recent collection of non-anthropocentric climate ethics from 2020. After, I shortly focus on the concept of non-human goodness and finally on the prospects of non-anthropocentric climate ethics to climate policy. Afterwards follows concluding chapter summarizing this thesis with critical reflection of existing climate ethics and their significance in the times of climate crisis.

When researching the topics for this thesis, I used the Electronic Information Resources Portal provided by Palacky University Olomouc and Charles University which grant access to several databases such as EBSCO and JSTOR. On some occasions I used google scholar. Throughout this thesis, I draw from both prominent and not so famous climate ethicists and environmental philosophers presenting both anthropocentric and non-anthropocentric side of thinking. I am also turning to scientists and philosophers interested in the Anthropocene concept and gender issues. Following the feminist academics stressing that citation is political, I intended for diversity of authors from which I drew in terms of gender, race, and academic background. The information which I synthetised was found in published handbooks, essential readings and collections on climate ethics and climate justice published by Oxford University Press, Yale University Press, Cambridge University Press, Routledge, or Taylor & Francis. Other articles are retrieved from academic journals focused on environment, climate change, ethics, Anthropocene, anthropology, or gender.

Although I chose to write my thesis in English, throughout this thesis I included some examples from the context of Czech Republic when discussing topics such as climate justice social movements; just transitions; and campaigns of several NGOs addressing climate change impacts in Czechia. Following the latest trends in climate change communication and the severity of the situation that the world is facing, throughout this thesis I decided to use the terms climate change and climate crisis interchangeably. I also use interchangeably the terms developing countries and countries of the Global South (and along with that the terms devel-

oped and Global North), while acknowledging the negative connotations that the term developing may (in my opinion rightly so) give away, especially in the climate justice movement and Indigenous spaces.

While preparing for this thesis, at first, I had intended to include also Indigenous outlook on climate crisis and climate ethics in the last chapter dedicated to non-mainstream climate ethics. However, I have finally decided not to, as I feel like the limited scope of it would take away its value, and also as a non-Indigenous person I do not find myself in a position where I would be truly able to avoid Eurocentric outlook and present a text of a good quality with care that it deserves. This may or may not present a limitation of this work.

Following feminist methodology, I consider important to shortly pay attention to my positionality. Besides my studies at Palacky University Olomouc I also pursue master's degree in Gender studies at Charles University, hence my focus on gender issues and intersectionality in this thesis. I work for an environmental NGO on a project aimed at raising awareness about climate change. Although I understand the value and need to keep one's academic distance, my views are shaped by not only scholarly opinions, but also by opinions of people in the climate justice movement, my bachelor's thesis on ecofeminism, and by the fact that I experience this world as white, middle-class, fully abled cisgendered female. In this work, I will therefore not claim my position to be objective, as I believe the topics we are choosing, the questions we are posing, the authors we are turning to, and the language and words we are writing, makes our position inherently subjective.

1 Current State of the Climate Change, Vulnerability, Adaptation, and Mitigation

"I've seen many reports, but nothing like the new @IPCC_CH climate report, an atlas of human suffering & damning indictment of failed climate leadership."

– Antonio Guterres (2022)

1.1 Intergovernmental Panel on Climate Change

Scientific consensus about climate change and its significance have been present in the political sphere since 1980s, however beforehand there was already a scientific climate theory being developed since the end of 19th century. Afterwards, an influx of new data on climate change and GHGs resulted into more accurate predicting of its implications, which eventually lead into climate change being understood as a political issue (Okereke, 2016, p. 835). Therefore, in December 1988, nowadays a crucially important institution was established – the Intergovernmental Panel on Climate Change (IPCC). It was set up at the request of United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in order to make sense of the findings of growing research on climate change and provide the information needed for developing climate policies (IPCC, 2022a).

Since 1990, IPCC issues every five to seven years a new report which synthetizes the most relevant and recent knowledge on climate change, therefore, IPCC does not produce any new knowledge, only assesses already existing findings. On top of that, it has played role in climate observation improvement, and it enables "climate modelers to come to agreement on various options, or scenarios, for estimates of future GHGs on a century time scale" (Ropelewski and Arkin, 2019, p. 125).

IPCC reports are divided into several parts – contributions from three Working Groups (WG): WGI—assessment of the physical scientifical basis; WGII—assessment of vulnerability, impacts, and adaptation; and WGIII— assessment of mitigation of climate change, Synthesis Report, Special Reports, and Methodology Report (IPCC, 2022a). These reports are a work of hundreds of scientists from all over the world assessing thousands of publications related to climate science, however, there have been growing concern about representation and diversity of IPCC contributors in order to make sure that "selected scientific expertise reflects the broadest possible range of social parameters" (Standring and Lidskog, 2021, p. 2).

In their analysis, Standring and Lidskog (2021) focused on the diversity among authors producing the two latest IPCC assessment reports – AR5 and AR6. Their analysis is a follow up to preceding reviews of diversity of this panel which stressed the slow progress being made and the uneven distribution of authorship. When the first 1990 IPCC report was issued, women presented only striking 2% of the scientists involved, and up until the fourth IPCC report there was a very low representation of researchers from the Global South, which implied that "there is a risk that important scientific and policy issues will be poorly understood and addressed" (Standring and Lidskog, 2021, p. 3). Here follows their findings regarding diversity amongst authorship in the two latest IPCC reports from 2014 and 2021/2022, i.e., assessment reports (AR) AR5 and AR6:

> "The analysis shows that there have been improvements in diversity in recent years across measures of gender (women comprising 34% of authors in AR6 compared to 21% in AR5), regional representation and the proportion of authors from developing countries (35% in AR6 compared to 31% in AR5). These improvements have not, however, been distributed evenly when looking at the seniority of authors, nor when comparing across working groups, with WGI (the physical science) remaining much less diverse (28% female authors) than WGII (impacts) (41% female authors) and WGIII (mitigation) (32% female authors)." (Standring and Lidskog, 2021, p. 1)

1.2 IPCC Sixth Assessment Report

In following chapters 1.2.1, 1.2.2, and 1.2.3 I will provide brief overview of the latest knowledge on climate change presented in the latest Sixth Assessment Report of IPCC (AR6), namely in the publications of WGI, WGII and WGIII. I will be mainly drawing from the Summary for Policymakers (SPM) but also from the Full Report as I shortly describe the historical shift in the IPCC discourse. I do not intend to provide an exhaustive survey of this report.

1.2.1 WGI – The Physical Science Basis

WGI contribution to the AR6 gave us a firm, although not surprising reassurance, that humans have unequivocal influence on warming "the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred" (IPCC, 2021, p. 4). Warming of such scale and rate and other "recent changes across the climate system as a whole … are unprecedented over many centuries to many thousands of years" (IPCC, 2021, p. 8). We also know that climate change caused by humans is now affecting every region on this planet regarding extreme weather and climate events "such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since AR5" (ibid). We are now equipped with evidence which gives us "best estimate of equilibrium climate sensitivity of 3°C" (IPCC, 2021, p. 11).

A Chapter on *Possible Climate Futures* presents five new emissions scenarios which drive climate model projections, however WGI states that in each considered emissions scenarios "global surface temperature will continue to increase until at least mid-century" (IPCC, 2021, p. 14). WGI also comments on the possibility of achieving the goal of the Paris Agreement, that is, keeping the global warming under 2°C and ideally 1,5°C. According to WGI, such ambition is achievable only unless deep cuts in GHG emission will be employed in next decades (ibid). Next, it is now certain that the intensity and frequency of extreme events such as "heatwaves … precipitation … droughts … cyclones; and reductions in Arctic sea ice, snow cover and permafrost …become larger in direct relation to increasing warming" (IPCC, 2021, p. 15). In the same vein, WGI expects further intensification of "global water cycle, including its variability, global monsoon precipitation and the severity of wet and dry events" (IPCC, 2021, p.

19). Another threatening fact is that "with increasing CO2 emissions, the ocean and land carbon sinks are projected to be less effective at slowing the accumulation of CO2 in the atmosphere" (ibid), and that several changes which are induced by GHG emissions are "irreversible for centuries to millennia, especially changes in the ocean, ice sheets and global sea level" (IPCC, 2021, p. 21).

1.2.2 WGII – Impacts, Adaptation and Vulnerability

Unfortunately, WGII contribution to the AR6 was not any less pessimistic than of WGI. According to WGII, "human-induced climate change … has caused adverse impacts and related losses and damages to nature and people, beyond natural climate variability … the rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt" (IPCC, 2022b, p. 11). The impacts of climate change amongst communities and sectors across the globe are disproportionate (ibid). Different ecosystems and groups of people are differently vulnerable to climate change. This vulnerability is "driven by patterns of intersecting socioeconomic development, unsustainable ocean and land use, inequity, marginalization, historical and ongoing patterns of inequity such as colonialism, and governance" (IPCC, 2022b, p. 14). Up to 3.6 billion people live in regions with very high vulnerability to climate change.

Of course, humans are not the only ones affected by climate change – vulnerability is also a problem of a large share of species, while it is important to keep in mind that "human and ecosystem vulnerability are interdependent … current unsustainable development patterns are increasing exposure of ecosystems and people to climate hazards (ibid). If rising temperatures reach 1,5°C in the near term (from now on to 2040), such exposure to climate hazards is inevitable, and risks such as violent conflicts and involuntary migration from vulnerable regions characterized with high exposure to climate change impacts and low ability to adapt will occur (IPCC, 2022b, p. 15, 17).

Regarding mid to long-term risks from 2041 to 2100, human-induced climate change will lead to numerous risks to natural and human systems – several species will be in risks of extinction – higher rising temperatures mean higher proportion of species highly threatened

by extinction (e.g., at 3°C, almost 30% of species will be at risk). Water ability will be decreased, while water-related hazards will increase across regions. Food security and nutrition are expected to be at threat, primarily in regions prone to vulnerability, due to weak food production. Climate change will also have serious impact on health (both physical and mental) and mortality (IPCC, 2022b, pp. 16-17). In next section, WGII authors stress that impacts of climate change are becoming more complex, risks are compounding and cascading across the globe (IPCC, 2022b, p. 20), "causing economic and societal impacts across national boundaries through supply-chains, markets and natural resource flow" (IPCC, 2022b, p. 21). Another threat which poses the temperature overshoot of 1,5°C is that once this limit is crossed (even temporarily), some "impacts will be irreversible, even if global warming is reduced" (ibid).

When assessing the adaptation measures, WGII states that there has been improvement across the globe, however despite this progress, adaptation distribution is uneven with existing adaptation gaps (IPCC, 2022b, p. 22). Nevertheless, on a positive note, we are equipped with "feasible and effective adaptation options" (IPCC, 2022b, p. 23) reducing such risks and hazards to both humans and nature. It is stressed that climate-oriented designing, planning, and infrastructure of both rural and urban settlements is essential (IPCC, 2022b, p. 26). WGII concludes that some limits to adaptation "can be overcome by addressing … primarily financial, governance, institutional and policy constraints" (IPCC, 2022b, p. 28), as well as maladaptation can be overcome by further flexible cross-sectoral cooperation (IPCC, 2022b, p. 29). Highly important factor is the existence of enabling conditions for adaptation consisting of "political commitment, institutional frameworks, policies and instruments … knowledge … financial resource, monitoring and evaluation, and inclusive governance processes" (ibid).

1.2.2.1 IPCC and the Shift in Discourse

Here, I would like to stress that AR6 represents a surprising shift in IPCC discourse, because for the first time in the history of IPCC reports, two critical issues are mentioned – colonialism and degrowth. As such, for the first time in 30 years, colonialism and its legacy were mentioned in the WGII approved version of Summary for Policymakers (SPM) as both historical driver and current threat shaping vulnerability and resilience to climate change:

> "… Present development challenges causing high vulnerability are influenced by historical and ongoing patterns of inequity such as colonialism, especially for many Indigenous Peoples and local communities." (IPCC, 2022b, p. 14)

Another historical moment signifies the mentioning of *degrowth* for the first time since IPCC has been publishing its reports. Although not mentioned in the WGII approved version of SPM nor the more detailed Technical Summary, degrowth has been used several times throughout the robust 3,676-page WGII full report. Degrowth is there described as an alternative school of thought to ecomodernism which "aims for the intentional decreases in both GDP and coupled GHG emissions … seeks to minimize reliance on negative emissions technologies … and aims to generate progress toward achieving the SDGs by prioritising redistribution rather than GDP growth[1]" (IPCC, 2022b, p. 68).

Along with that, each chapter of WGII report in each version – SPM, Technical Summary, and Full Report, covers Indigenous people and their experience of climate change impacts. Focus on Indigenous people and culture is also put in WGIII. Also, there is a discussion of our understanding of development in the times of climate crisis, with mentioning of possible alternatives drawing from the Indigenous culture:

> "To achieve climate resilient development requires framings of development that move away from linear paradigms of development as material progress by focusing on diversity and heterogeneity, wellbeing and equality, not only in contemporary practices, but also pathways of change over time … Such approaches, which are fundamentally aligned with ecological and ecosystem-based environmental assessments which identified heterogeneity of approaches

[1] For the purpose of highlighting the shift in the discourse maintained by the authors of IPCC reports, I used citations from the published robust WGII AR6 Full Report, even though the part of such parts of the report are marked in the official document with a warning "Do Not Cite, Quote or Distribute". The only part of the published AR6 which is not marked as such is the approved Summary for Policymakers (SPM).

> and actions as the most effective path to a sustainable world … emphasize the importance of cultural, linguistic and religious diversity, not merely as alternative sources of information about the world, but as different paradigms of well-being … These include indigenous and local knowledges that provide alternatives to these framings of the world … visions such as 'buen vivir' … ecological Swaraj … and Ubuntu ... All are linked by relationships with nature radically different from the Western mechanistic vision, presenting not only framings of development and the environment that yield locally appropriate climate resilient development pathways, but serve as examples of alternative ways of living in balance with nature that might inform similar thinking in other places." (IPCC, 2022b, p. 21)

Although there is no consensus on the reason for this landmark twist in IPCC discourse, it is not inevitable that it could be partially due to the growing diversity of its contributors as I discussed in previous chapter, and due to the increasingly critical state of climate change.

1.2.3 WGIII – Mitigation of Climate Change

The last contribution of Working Group III to the AR6 kicks off with a very pessimistic statistics, that "total net anthropogenic GHG emissions … have continued to rise during the period 2010–2019, as have cumulative net CO2 emissions since 1850" (IPCC, 2022c, p. 4). This increase is applicable to all major sectors on a global scale since 2010 (IPCC, 2022c, p. 7). There is uneven regional pattern of GHG emissions – for example, striking "10% of households with the highest per capita emissions contribute a disproportionately large share of global household GHG emissions. At least eighteen countries have sustained GHG emission reductions for longer than 10 years … In 2019, LDCs are estimated to have emitted 3,3% of global GHG emissions" (IPCC, 2022c, p. 8). Another positive fact is that there is noticeable decrease in costs of low-emissions technologies such as solar and wind energy, however such innovation is again distributed unevenly for differing enabling conditions (IPCC, 2022c, p. 12). Also, the number of mitigation policies and laws is increasing since AR5 (IPCC, 2022c, p. 14).

On a negative note, WGIII states that no scenarios account for reaching of the 1,5°C target based on current nationally determined contributions (NDCs) (IPCC, 2022c, p. 15). Another alarming statement indicates that without immediate emission reductions and "without a strengthening of policies beyond those that are implemented by the end of 2020, GHG emissions are projected to rise beyond 2025, leading to a median global warming of 3.2 [2.2 to 3.5] °C by 2100" (IPCC, 2022c, p. 21). In order to successfully reduce GHG emissions "major

transitions, including a substantial reduction in overall fossil fuel use, the deployment of low-emission energy sources, switching to alternative energy carriers, and energy efficiency and conservation" (IPCC, 2022c, p. 36) are required. Urban environments present opportunities for effective resource management and GHG emission reduction (IPCC, 2022c, p. 39). Also, for the first time in IPCC history, WGIII contribution includes a chapter on demands, services and social aspect of mitigation, signalling the importance of 'putting people first' principle.

1.3 Climate Change and Human rights

Climate change presents an enormous threat to human rights. The concept of human rights, according to Caney (2009), has four main components – they "(1) are grounded in a person's 'humanity'; (2) represent moral thresholds; (3) respect each and every individual; and (4) take general priority over other values" (Caney, 2009, p. 71). For years, human-induced climate change has been already undermining the realisation of variety of human rights under international protection, as Humphreys (2009) notes – "rights to health and even life; rights to food, water, shelter and property; rights associated with livelihood and culture; with migration and resettlement; and with personal security in the event of conflict" (Humphreys, 2009, p.1).

Caney (2009) emphasises three main violations of fundamental human rights – "the human right to life; the human right to health; and the human right to subsistence" (Caney, 2009, p. 75). First one, violation of the right to life, is caused by anthropogenic climate change impacts causing increased frequency of extreme weather events resulting to a loss of life (such as heat waves, tornadoes, storms, floods causing landslides, droughts, fires) (Caney, 2009, p. 77). Second one, the violation of the right to health, is caused by extreme weather events causing injuries and overall increase of range of malaria, dengue, diarrhoeal diseases, cardio-respiratory morbidity due to climate change (Caney, 2009, p. 80). Third one, the violation of the right to subsistence, is caused by increasing temperature resulting into droughts and thus food insecurity; rising sea levels resulting into loss of land and therefore decrease of agricultural land; floods resulting into failure of crops; and frequent extreme weather events resulting into agriculture destruction (Caney, 2009, p. 81).

However, the threats of climate change to human rights are distributed unequally. First, the worst impacts of climate crisis burdens communities who have contributed to climate change the least, for example African countries produce only 4 % of global total GHG emissions while the global North is responsible for 92 % of all emissions (Africa Renewal, 2021). Second, these most affected populations already suffer from weak precarious rights protections, and third, these communities live in resource-poor countries, where the rights protection is the weakest and state's ability to adaptation or mitigation to climate change is low, therefore the

human consequences of climate change are exacerbated. Humphreys (2009) describes this situation as a vicious circle, as these people "are likely to be less well-equipped to understand or prepare for the effects of climate change, less able to lobby effectively for government or international action and more likely to lack the resources needed to adapt to expected alterations in their environmental and economic situation" (Humphreys et al, 2010, pp. 1-2).

Even though Caney (2009) argues that analysis of infringement of human rights "has far-reaching implications for our understanding of the kind of action that should be taken and who should bear the costs of combating climate change" (Caney, 2009, p. 71) "and what kind of policies are appropriate" (Caney, 2009, p. 90), Humphreys (2009) indicates several aspects that hinder the potential of *human rights-based approach* to form effective policies addressing climate change. First, human rights which are prone to violation due to climate change such as social and economic rights, migrations rights, and rights in conflict, have very "weak enforcement mechanisms under international law" (Humphreys, 2009, p. 4). Also, the problem of enforcement concerns the rights which possess strong protection (rights to life and property), due to the fact that their infringement by climate change is indirect. Next, extra-territorial responsibility and local accountability are hard to establish; declared state of emergency allows for suspension of human rights law; and lastly, rights of several globally dispersed actors (those being harmed versus those enjoying their rights while not being harmed at that moment whose rights could be limited by climate change policies) may be in conflict (Humphreys, 2009, pp. 5-7). As seen in the first chapter, all of these examples of undermining human rights were present in the IPCC AR6.

1.4 Climate Change and Gender

As I have discussed in previous chapter, climate change is a human rights issue. But on top of that, it is also a gender issue, as communities are not homogenous societies, and everyone benefits or is disadvantaged differently. *Intersectional sensibility,* an approach proposed by Kimberlé Crenshaw (1991) considering the different intersections of inequality or discrimination resulting from social categories such as gender, race, ethnicity, class, sexuality, age, dis/ability; leads us to an understanding that everyone experiences the reality of impacts of climate change differently. These differences are deeply gendered and should not be overlooked and dismissed, as it only exacerbates the already existing inequalities and impedes any climate action. Because women form half of world's population, in words of Patricia Perkins (2019): "Gender is the most crucial category of climate injustice … an intersectional gender perspective on all types of climate justice is not only ethically vital, but also efficient, strategic, theoretically fundamental and inspiring" (Perkins, 2019, p. 349). Susan Buckingham and Virginie Le Masson (2017), together with other authors of her edited book *Understanding Climate Change through Gender Relations,* suggest that gender relations are producing anthropogenic climate change and if we will not acknowledge gender inequality (an outcome of systematically gendered distribution of power relations), we will continue to fail to address climate change and its effects (Buckingham and Le Masson, 2017, p. 3).

As a result of gendered roles in societies, production and domestic life, climate change has gendered implications for vulnerability and capacity to adaptation. On both global and national levels, women and girls are on average poorer, less educated, have lower mobility, less land-ownership rights, outlive men, and are less represented in negotiations and decision-making in at all levels - which are all risk factors making women and girls more vulnerable to climate change. On top of that, gendered vulnerability to climate change "involves self-reinforcing feedbacks that increase its impacts over time and over generations" (Perkins, 2019, p. 350). When we focus on the most climate vulnerable countries and populations living in rural areas where subsistence farming is common, gendered division of social roles of production and reproduction means that women are mainly responsible for food production, preparation of food, fetching water, providing fuel, raising children, and taking care of disabled or elderly relatives (ibid).

Therefore, if we consider the impacts of climate change such as droughts, cyclones, and floods on agriculture and water security, we should understand the implications of women's natural resources-dependent activities – increased (unpaid) workload (Buckingham and La Masson, 2017; Perkins, 2019, pp. 349-350). Drought is understood to be one of the most burdening factors as women have to travel longer distances to collect it, they are more prone to have health-related problems resulting from overheating, starving, but also traveling far means a higher risk to be sexually assaulted (WHO, 2014). It is also common for girls to skip school in order to help their mothers to provide these basic necessities such as fetching water or collecting hardwood for fuel, thus their school attendance is lower compared to boys not only due to skipping school when menstruating, or when the family is not able to pay for school fees and therefore prefers girls to stay at home and work, for example. Another recorded gendered consequence of droughts and floods is the increase in child marriage rates across Southern Africa (CARE, 2020).

On top of that, when the access to food is restricted, women suffer again more, as they tend to eat as least, in order to feed their children and male relatives first (ibid). In some developing countries (Bangladesh, for example) women suffer from higher mortality during floods because of malnutrition and thus are less physically fit or because they cannot (were not teach to) swim and their mobility in water is more difficult by their clothes (WEDO, 2008). Generally, during and after disasters, women and girls are more likely to experience gender-based violence – sexual assaults, human trafficking, or domestic violence (IFRC, 2015, p. 8), however this is not only specific to Global South, but to Global North also, as studies find increase in gender-based violence in US after hurricane Katrina in 2005 (Schumacher et al, 2010).

Extreme weather events are one of the main push factors of migration, however according to UN Women (2017), as women suffer from more poverty, they have lower ability to escape and recover from the impacts of climate crisis. Although if women manage to escape, their migratory experience is once again gendered, as they are vulnerable to gender-based and sexual violence, trafficking, and when pregnant, women are generally in more danger, as access to food or healthcare is restricted (UNHCR, 2020, p. 1). As International Organization for

Migration concludes, "migration is inherently gendered – women and men tend to have different migration patterns at every stage of the migration cycle (predeparture, transit, arrival, stay and return)" (IOM, 2018, p. 103). On top of that, women are not the only group at risk when migrating, as "transgender, intersex and non-binary people may also be particularly exposed to adverse displacement outcomes, particularly regarding access to adequate healthcare and protection" (UNHCR, 2020, p. 1), and have troubles crossing borders, as we have seen in the case of Ukrainian trans people desperately trying to flee their war-torn country, while being denied the passage and forced to undergo transphobic examinations (The Guardian, 2022).

However, gender-climate linkages do not apply only for the rural areas in developing countries of Global South. They are also represented by different patterns of behaviours and concerns and values regarding climate change between men and women, which apply also to Global North. There are many possible reasons for this gender divide, one of them is that 'green' behaviour is considered to be more feminine due to gender stereotypes, and therefore threatening to masculinity[2]. Men's behaviour is also shaped by their sense of invulnerability (Perkins, 2019; Brough et al, 2016; Dymén and Langlais, 2019). In the same vein, McCright and Dunlap (2011), focusing on conservative white males in US, describe the differing patterns as 'the white male effect', and conclude that this specific group of men is more likely than other US citizens deny climate change (which is, according to the authors, an example of identity-protective cognition).

Research shows that women have tendency to be more averse to risk, more altruistic, empathetic, and caring, which are all characteristics important for pro-environment behaviour. Generally, in private sphere, women tend to be more concerned and thus more proactive in regards of environmental and climate related issues. As such, women are more likely to embrace environmentally friendly products and behaviour, they even vote more than men for

[2] It is important to say that there is no one masculinity or femininity, but plurality of both masculinities and femininities. Hultman (2017) suggests three types of masculinities related to environment "industrial masculinity (that which is characterised as the historical dominant masculinity), ecological masculinity (in which men enjoy a sensitive relationship with nature, caring for its long- term sustainability), and a hybrid 'eco- modern' masculinity in which the proponent adopts an ecological modernity that provides superficial solutions but no long- term fundamental shifts." (MacGreggor, 2017, p. 4)

climate policies. When they have families, "women are generally made responsible for the decisions and work required to "green" the economy household, for example, by composting and recycling wastes, planning energy-saving, reducing carbon-intensive practices such as meat consumption and organising community-based environmental initiatives" (Perkins, 2019, p. 350).

All of these examples of gendered experiences and comprehensions of climate change impacts give us an important guidance for inclusive and gender-sensitive policies. However, it is enormously important to not see women (and girls) only as passive victims, to not make women of Global South one homogenous group. Women across the world have been already participating in the fight against climate change at all levels, from small communities to UN negotiations, bringing their inputs and knowledge influenced by gendered lived experiences, responsibilities and skills. As a half of world's population, they are incredibly important agents of change capable of contributing to solutions, in both Global South and North, and as such it is necessary that they are represented and make equal partners in decision-making at local, national and international levels. Without intersectional gender-sensitive approach to climate change mitigation and adaptation, these strategies will never fully succeed. Women need to be ensured full protection of their rights, inclusion, and leadership, obtain sufficient funding and resources, and be part of making gender-sensitive climate policies (CARE 2020; Perkins 2019; UNHCR 2020).

1.5 The concept of Anthropocene

In this part, I would like to focus on the concept of Anthropocene which during the 2000s entered popular discourse as a signifier of climate crisis. In next chapters I will provide definition of Anthropocene as a multidimensional concept, different approaches and dimensions of it, but also its criticism with suggestions of two chosen new concepts - Capitalocene and Plantationnocene by Moore, Haraway and Davis et al. Feminist-environmentalist critique of this concept is also included. Afterwards, I will focus on the implications of this concept for climate ethics and climate policy, drawing from both conventional anthropocentric and non-anthropocentric ethicists discussing climate change.

1.5.1 Definition

Anthropocene is a multidimensional concept implying multiple definitions; however the mainstream conception of Anthropocene is that of a new geological epoch in which humankind has become a new geological force and significantly impacts planet Earth's climate end ecosystems with irreversible effect. However, scientific definitions can be divided into three conceptions. First one is proposed by stratigraphers as a new interval in geological history, drawing from evidenced of differences in rock strata (Zalasiewicz, 2020). Another definition is provided by Earth system science, an interdisciplinary body ranging from climatology, global ecology, chemistry, oceanography to geology, therefore the arguments for a new epoch are not only based on evidence from the rock strata, but range from anthropogenic global warming, raising sea-levels, rapid species extinction to large-scale sediment shifts. It defines is as that Earth as a system is experiencing a shift, leaving a geological epoch called Holocene, an interval of post-glacial geological era characterized by the past 11,700 years of relatively mild climate, when nature was thought of as a backdrop for human activities (Hamilton et al, 2015).

Third definition concerns the widest notion of cumulative human effect on Earth "including transformations of the landscape, urbanisation, species extinctions, resource extraction and waste dumping, as well as disruption to natural processes such as the nitrogen cycle" (Hamilton et al, 2015, p. 3). Until today Anthropocene is still only a potential geological epoch, and therefore we still formally live in Holocene. That is a consequence of the fact that the concept

of Anthropocene is still of discussion and thus has not been added into the official Geological Time Scale, a task overseen by the Anthropocene Working Group (where men, mostly from the Global North, form 82 % of the group), International Comission on Stratigraphy and the International union of Geological Science (Di Chiro, 2017, p. 488; Hamilton et al, 2015, pp. 2-3; Zalasiewicz, 2020, pp. 13-14).

There is no clear consensus on the marking of the beginning of the Anthropocene epoch. The popular scientific view is the 18th century – the dawn of the Industrial Revolution linked to the growing concentrations of greenhouse gases in the atmosphere, especially CO2 and CH4 (Crutzen and Stoermer, 2000, pp. 17-18). Some suggest the advent of early agriculture development since 8000 years ago (Ruddiman, 2013, p. 261), others see most stratigraphically optimal boundary set in the time of Great Acceleration of the mid-20th century where the impacts of Industrial Revolution are understood to be global and near-synchronous, or the time of the first nuclear bomb explosion in 1946 (Zalasiewicz et al, 2014, p. 1).

As Moore (2017) indicates, Anthropocene can be also understood as a dialogue of several kinds. First dimension is Anthropocene as a geological time unit, second presents the popular discussion about planetary crisis and sustainability in both media and academia, and third presents the view of "modern world history, and … the origins of ecological crisis today" (Moore, 2017, p. 9). As we can see, Anthropocene invokes negative connotations, although Schmidt et al (2016) suggest there are actually two ways to approach Anthropocene, either as good or as bad. The advocates of 'bad Anthropocene' understand it as a crisis, whereas the proponents of "good Anthropocene" such as the eco-modernists claim that technological innovation offers humans the ways to solve ecological and social problems and "co-design the Earth System in a way that moves beyond the failed society/nature binaries" (Schmidt et al, 2016, p. 6), even though this approach involves idealistic view of green technologies which can actually increase the exploitation of natural resources (ibid).

According to Bonneuil (2015), there can be found four grand narratives of our geohistorical shift within the Anthropocene discourse, each telling a slightly different story. In his analysis, Bonneuil proposes the distinction of (1) the naturalist narrative; (2) the post-nature narra-

tive; (3) the eco-catastrophist narrative; and (4) the eco-Marxist narrative. *Naturalist narrative* is currently the mainstream one telling a story of the hunter-gatherer human species became a global geologic force. Second*, post-nature narrative* is telling a story of the end of Nature and passive human society (silencing any forms of resistance, campaigning, initiatives and non-western conceptions of nature), where it is up to scientists to take the lead and come up with innovative new green technologies – this is a "grand narrative of modernity, that of Man moving from environmental obliviousness to environmental consciousness, of Man equaling Nature's power, of Man repairing Nature" (Bonneuil, 2015, p. 23). These two narratives lead towards "better lives, better knowledge, better dominion over nature" (Bonneuil, 2015, p. 27). On the other hand, *the eco-catastrophist narrative* is telling the story of how the project of modernity intertwined with progress and indefinite growth becomes limited by planetary boundaries, leading "towards limits, tipping points, collapse, violence and wars" (ibid). Lastly, *the eco-Marxist narrative* views Anthropocene as a consequence of capitalism's "inability to maintain nature" (Bonneuil, 2015, p. 28). In my opinion, it is important to point out that Bonneuil comments that he did not include either eco-feminist or non-western narratives, therefore, this this list is not exhaustive and the approach stays mainly Eurocentric. Nevertheless, he insists:

> "We need a plurality of narratives from many voices and many places, rather than a single grand narrative from nowhere, from space or from the species. Putting the array of narratives on the table in a reflexive and comparative manner helps to think our new geo-historical epoch rather than being predetermined as Anthropocene (species) subjects. It opens the black boxes of the Anthropocene discourse and repoliticises them" (Bonneuil, 2015, p. 29)

1.5.2 Critique of the Anthropocene Concept

Although the concept of Anthropocene may seem to have broad scientific and public support, there is an ongoing debate on the appropriateness and relevance of the term. The main critique lies in the fact that the concept does not take full account of historical roots of the changes in the Earth System and blames all humanity for the state of crisis that we face today (Davis et al, 2018, p. 2). Also, some scientists such as Finney and Edwards from the international and North American stratigraphic commissions have expressed their concerns over politicization of the concept (Schimdt et al, 2016, p. 7).

In following part, I will shortly present three of many alternative propositions and critiques which emerged after the formation of the Anthropocene concept[3]. I will focus on the Capitalocene and Plantationocene, which fall into the *eco-Marxist narrative* proposed by Bonneuil (2015), followed by feminist-environmentalist critique of Di Chiro (2017).

1.5.2.1 Capitalocene, the Age of Capital

This concept was proposed by Jason Moore (2016), departing from a place of acknowledging Anthropocene as "the most influential concept in environmental studies over the past decade" (Moore, 2016, p. 2), however describing it as an easy and "comforting story with uncomfortable facts" (Moore, 2017, p. 2). Moore argues that the Anthropocene concept is problematic due to its shallow and Eurocentric historicization with erasure of historical specificity of capitalism, more precisely "dominant periodization, which meets up with a longstanding environmentalist argument about the Industrial Revolution as the origin of ecological crisis" (Moore, 2018, p. 1). He also states that this narrative fits into the human/nature binary - a subject of critique by many but mainly proponents of ecofeminism such as Merchant (1980), Plumwood (1993), Warren (1996), or Shiva (1998). Thus, in Anthropocene, it is the homogenous humanity as a collective actor, "the Anthropos: humanity as an undifferentiated whole" (Moore, 2018, p. 2) inflicting the ecological crisis, without acknowledging the oppressive systems of inequality, imperialism, commodification, or patriarchy (Moore, 2016, p. 82).

[3] The list is not exhaustive, because as Moore points out, there have been several other proposed concepts such as "Anthrobscene (Parikka 2014), econocene (Norgaard 2013), technocene (Hornborg 2015), misanthropocene (Patel 2013), and …. manthropocene (Raworth 2014)" (Moore, 2016, p. 6), or Necrocene (McBrien, 2016)

Instead, Moore suggests that the problem is not in humanity as a collective actor, but in relations between capital and capitalist power. He then proposes the concept of Capitalocene which emphasizes destructivity of "relations privileging the endless accumulation of capital" (Moore, 2016, p. 94). Moore situates origins of Capitalocene in 16th century and the time of invention of *Cheap Nature,* which he defines as unpaid labour-power, food, energy, and raw materials, situated in spheres of reproduction outside of the immediate commodity system, which the commodity system is dependent so to sustain productivity increase (Moore, 2015, pp. 54-62). For Moore, Capitalocene is "a system of power, profit and re/production in the web of life" (Moore, 2017, p.1), where *web of life* signifies "nature as a whole .. this is nature as us, inside us, as around us … humans make environments and environments make humans – and human organization" (Moore, 2015, p. 14). In Capitalocene, capitalism is not comprehended as an economic or social system, but rather "as a way of organizing nature—as a multispecies, situated, capitalist world-ecology" (Moore, 2016, p. 6), of which onset cannot be historically reduced only to the invention of steam engine and Industrial Revolution (Moore, 2016, p. 96).

1.5.2.2 Plantationocene

Another suggested concept is Plantationocene focusing on plantation logics characterized by scalability and interchangeability as a means of organizing environment, bodies, relations, and economies, emphasising "the devastating transformation of diverse kinds of human-tended farms, pastures, and forests into extractive and enclosed plantations, relying on slave labor and other forms of exploited, alienated, and usually spatially transported labor" (Haraway, 2015, p. 162).

However, Davis et al (2018), drawing from Black geographies and plantation scholars, critiqued the Plantationocene scholarship and especially the conception of Haraway (2015) for diminishing the importance of "ways in which racial politics structure plantation life (both human and nonhuman)" (Davis et al, 2018, p. 10) and side-lining "Black spatial and ecological thought and practice" (Davis et al, 2018, p. 5) centring race, which is crucial for the field of

studying plantation. According to Davis et al (2018), Haraway's multispeciecist stance resulted into a colour-blind conception of the plantation diminishing "the deep history of Black struggle and the ways that attention to slave life can provide guidance for cultivating worlds that support multispecies well-being" (Davis et al, 2018, p. 5). Nevertheless, Davis et al (2018) see much potential in this concept, especially for centring "racial capitalism in understanding environmental crises, while drawing attention to the liberatory potential of Black ecologies" (Davis et al, 2018, p. 4).

1.5.2.3 Feminist-environmentalist Critique

The feminist-environmentalist critique of Anthropocene I have chosen to present is by Di Chiro (2017). In her essay *Welcome to the white (M)ANthropocene?*, drawing from ecofeminism and feminist analysis of Anthropocene of Raworth and Haraway, Di Chiro (2017) suggests that

> "the Anthropocene retells the masculinist origin/self-birthing story that inevitably culminates in Man as the master creation, the Master of the Universe, and now its destroyer and, possibly, its saviour. Mirroring the race, gender, and class composition of other climate and environmental research and policy arenas, the Anthropocene might more appropriately be coined the *Man*thropocene". (Di Chiro, 2017, p. 489)

Di Chiro (2017) argues that the naming of this epoch follows the praxis of "masculinist and colonialist naming practices of Western religion, science, and politics" (ibid). In the same vein as the critiques presented before, Di Chiro (2017) criticises the pan-humanism present in the mainstream Anthropocene discourse which reflects neoliberalism, individualism, and connects it to the idea of resilience to climate change. She argues that when the story is told as "if 'we' (humans) are all to blame for the climate crisis, then no one is to blame and, therefore, no one is responsible, so we're all left to our own devices to become more resilient" (ibid). This individualistic resilience is then emphasised when stereotypically casting women as "either vulnerable climate victims or hardy climate heroes" (ibid).

1.5.3 Anthropocene and Its Implications for Climate Ehics

Whether we sympathise with the concept of Anthropocene, or its alternatives mentioned above, in every case this shift in history and understanding the environment and human's place in it, has grave implications for our ethics and morality (Singer, 2016, p. 26). Also, it presents a fundamental challenge to the elementary assumptions of Western modern thought such as the human/nature dualism (Schmidt et al, 2016, p. 1), and exposes the anachronistic nature of Holocene thinking (Hamilton et al, 2015). Schmidt et al (2016) describes it as a storm where ethics and science are intertwined in a way that science introduces new categories (e.g., planetary boundaries) which form our ethical thinking towards planetary stewardship, while ethical systems shape our behaviour which affects the Earth System (Schmidt et al, 2016, p. 6).

Peter Singer (2016) claims that our moral compass towards other people, non-human beings, and nature was formed in circumstances when the exploitation of sources was considered unproblematic due to their assumed limitless nature and its infinite absorption function, in other words when the harmful impact of some of our actions was not visible and thus our "responsibilities and harms were generally visible and well defined" (Singer, 2016, p. 26). He calls for a new set of ethics influenced by Anthropocene where "our overriding obligation, as individuals, is therefore to be activist citizens and to do our best to persuade our government to come together with other governments and find a global solution to a global problem" (Singer, 2016, p. 27). Skillington (2017) adds that now humankind "is tasked with deciding how the future of this planet will unfold" (Skillington, 2017, p. 2).

Others criticize conventional ethics (drawing from deontology and consequentialism) for applying old normative categories when we need new conceptual grounds for realizing human dignity (Hamilton et al, 2015, p. 8), stressing that the nature of Anthropocene, i.e., the lack of functional stability of the Earth System, is the reason why conventional ethics are ill equipped to deal with climate change and its effects (Schmidt et al, 2016, p. 6). Although Schmidt et al (2016) understand this case for examination and reimagination of existing ethical principles, they insist that we should not simply reject all previous conventional ethics or "forms of cul-

tural learning or transmission" (Schmidt et al, 2016, p. 2). This statement is based on arguments that (1) it would entail also rejecting the valuable cultural knowledge of non-western cultures which do not follow the modern human/nature dualism (that some theorists view as the main source of Anthropocene resulting into climate crisis); (2) it would silence the motivating effect of conventional ethics on planetary stewardship; and (3) it could lead to legitimation and intensification of historical inequalities (in other words, when old ethical rules do not apply, why to follow them) (Schmidt et al, 2016, pp. 2-3).

Drawing from non-anthropocentric ethics, on the other hand, authors such as Katz (2020) criticize the Anthropocene concept for its anthropocentrism. Katz (2020) suggest that the concept of Anthropocene directly effects the way of approaching ethical issues related to climate change impacts, resulting into anthropocentric climate policy making - the nonhuman world is understood to have no direct value and thus becomes a modifiable instrument for humans to act on climate change and preserve their interests. According to Katz (2020), the Anthropocene concept alone

> "legitimizes the idea that the human domination of the natural world is the normal state of affairs … This is a form of anthropocentric epistemological domination, in that human thought alone—before the creation of any human policy alternatives—prescribes the subjugation of the non-human natural world as the fundamental idea in the relationship of humanity to nature… this anthropocentric framework clearly leaves little or no room for direct moral consideration of the non-human world… The consideration of the effects of climate change on the non-human world is only significant for its effect on human life and institutions." (Katz, 2020, p. 23)

Following thoughts of Katz (2020), I will dedicate the last chapter of this thesis to the evolution of non-anthropocentric climate ethics, which are largely omitted in the mainstream climate ethics discussion.

2 Ethical Dimension of Climate Change

In this second part of the thesis, I shall present the heterogenous body of climate justice (CJ). After its conceptualization, I present climate justice social movements. Afterwards I discuss how is CJ articulated in negotiations and outcomes of COP21 and COP26, and the concept of just transition is presented. Following part of the thesis is dedicated to analysing CJ as a normative inquiry, i.e., climate ethics, where I present two families of views – mainstream anthropocentric climate ethics and its main tenets, and non-mainstream non-anthropocentric climate ethics and ethics drawing from decolonial and ecofeminist theory.

2.1 Climate Justice

Climate change presents one of the hardest challenges of our times to deal with for the reasons of the historical responsibility of its root causes, unequal impacts or the need of globally coordinated climate action including extremely complex processes towards low-carbon and climate-resilient societies. That is why the discussion of justice – *climate justice* precisely – gained on importance. The concept of climate justice, emerging from global justice and environmental justice movements, is a heterogenous body with a lot of perspectives and approaches, and as the authors of the *Handbook of Climate Justice* state: "Climate justice means different things to different people … different things to the same people depending on a particular time and space … [and] is articulated differently by social movements, NGOs, academics, and policymakers" (Jafry et al, 2019, p. 3).

Thus, the topics vary from addressing inequality of the disproportionate burdens of climate change on the poor, vulnerable and marginalised people; responsibility; the topics of mitigation and adaptation (which presents a great opportunity to address several issues of social justice); fossil fuel industry power structure; reparations and distribution of wealth; indigenous approaches to climate change related issues; protecting human rights in the age of climate change; to transformative approaches to deal with these problems (ibid) and imagining fossil fuels-free alternative futures. Climate justice advocates also highlight the negative impact of institutions and economic policies accelerating climate crisis on the most vulnerable; argue that policy changes should reflect the demands of grassroot activities; and focus on

critique of the economic growth mindset. For the issues that climate justice cares about, primarily the movements, NGOs and some policies generally use an intersectional approach which means acknowledging the many intersections of inequalities and forms of oppression that some face resulting from race, gender, disability, class, or sexuality, etc. (Tokar, 2019, pp. 20-23). However, the use of such approach is not so visible in mainstream climate ethics discussion.

Boran (2019) proposes a framework, where climate justice can be understood in two ways – as a *social movement* and as a *normative inquiry*. Their distinction lies in the "modes of involvement in the pursuit of justice" (Boran, 2019, p. 27). IPCC proposes to understand climate justice as a concept based on "three principles: distributive justice which refers to the allocation of burdens and benefits among individuals, nations and generations; procedural justice which refers to who decides and participates in decision-making; and recognition which entails basic respect and robust engagement with and fair consideration of diverse cultures and perspectives" (IPCC, 2022b, p. 5). Another division proposes Schlosberg and Collins (2014), who identify three separate articulations of climate justice – (1) academic discourse (in Boran's terminology it is the same as climate justice as a normative inquiry), (2) pragmatic policy of elite NGOs, and (3) grassroots movements.

In following chapters, I will focus on (1) climate justice as a social movement (including both grassroots movements and NGOs), (2) climate justice as a policy, (3) climate justice as a normative inquiry, i.e., climate ethics.

2.1.1 Climate Justice as a Social movement

Climate justice as a social movement aims to pursue justice through social change and therefore is concerned with civil society and activism. The movement builds up on the previous work and activities of environmental, social justice, indigenous movements across the globe. In Global South that means for example building on activism concerning the issues of mega-dams, deforestation, palm oil plantations, food sovereignty, land-grabbing, or rising sea levels threatening small-island nations. On the other hand, in the context of Global North and the United States especially, the movement builds primarily on environmental justice activism (which grew from civil rights movements) related to environmental racism. That means fighting the disproportionate exposure of low-income communities and communities of colour to the environmental hazardous waste and to other negative impacts of industrial practices (Tokar, 2019, p. 17). According to Schlosberg and Colins (2014), the concept of climate justice in grassroot movements emerged as an attempt to "removing the causes of climate change …, addressing the inequitable impacts of the oil industry at all stages …, fostering a 'just transition' to a post-carbon economy" (Schlosberg and Collins, 2014, p. 366).

Photo 1.: *Students attending the 2019 Fridays For Future Czech Republic Global Climate Strike For Future in Prague. Source: https://a2larm.cz/2019/03/cesti-teenageri-dali-klimatu-palec-nahoru/*

For a long time, climate justice activism had difficulties with reaching broader audience (McAdam, 2017), however that changed with the emergence of Fridays For Future, probably the most recent and visible climate justice movement of today. It is a global grassroot student movement striking and advocating for climate action in 185 countries. It is the largest environmental youth movement up this day, unique for its membership base across the entire world (Cologna et al, 2021). Consequently, we are now seeing a new trend in climate justice activism – a shift toward digital activism and online social movements of the youth, caused by the increased prominence of online social media, where digital space presents new opportunities to gather no matter where we are located, raise awareness, inspire each other, facilitate discussion, and community building for the climate justice cause. This trend was only exacerbated by the coronavirus pandemic, which prohibited activists of all sorts to come together, meet and protest physically, and had impact on "online organizing in lockdown lead partially to transnational advocacy" (Priano, 2021, p. 17). One of such movements using the strategy of digital activism on social media platforms such as Instagram, Twitter, TikTok, or Facebook is definitely Fridays for Future (on both global and local levels, around Global South and North together)[4].

In the context of Czech Republic, there are several climate justice movements, coalitions, and organizations. Probably the most famous of them is the Czech branch of Fridays For Future – their presence led to the creation of similar movements such as Univerzity za klima (Universities for Future), Rodiče za klima (Parents for Future), and Učitelé za klima (Teachers for Future). Other organizations are Limity jsme my; Extinction Rebellion; Klimatická koalice (Climate Coalition); Klimatická žaloba (Czech Climate Litigation) and Reset – Platform for socio-ecological transformation.

2.1.2 Climate Justice in Negotiations, Policy, and Governance

According to Jafry et al (2019), the term *climate justice* appeared in the 1990s in connection to the social and environmental justice movements addressing the fossil fuel industry and

[4] Other examples of movements and individuals with large following (more than 200k, characterized by English-speaking audience) voicing climate justice issues and emphasising an intersectional approach to climate change problem, are the Instagram accounts of Greta Thunberg (14,3 million followers), @earthrise.studio, @intersectionalenvironmentalist, or the UK podcast duo Mikaela Loach and Jo Becker with their 'The YIKES podcast'.

the failure of 2009 Copenhagen Summit on climate change unable to deliver a climate deal (Jafry et al, 2019, p. 1). Kanbur and Shue point out that the concept of climate justice gained importance in the international and national policy and public discourse in 2013 when Mary Robinson, the UN Secretary General's Special Envoy for Climate Change, instituted the Climate Justice Dialogue, followed by forming of the global High Level Advisory Committee to the Climate Justice Dialogue. Later, climate justice was a concept of paramount importance especially in 2015 at two specific events – at the UN SDGs summit and COP21, the Conference of Parties to the Framework Convention on Climate Change in Paris (Kanbur and Shue, 2019, p.1), which brought a lot of optimism with the Paris Agreement.

In following part of this chapter, I will analyse how the concept of climate justice and a subsequent concept of loss and damages (which I will describe shortly below) was treated at two of the biggest and most significant summits (and in their outcomes) on climate change - (1) COP21 in Paris in 2015 and therefore in the Paris Agreement, and (2) COP26 in Glasgow in 2021 and therefore in the Glasgow Climate Pact. Lastly, I will present the concept of *just transition* and chosen examples of such instrument – Green New Deal, European Green Deal and just transition in the context of Czech Republic.

But before that, I will shortly present the concept of '*Loss and Damage'* (L&D), which is now considered to be a new climate justice agenda (Boyd et al, 2021). With mitigation and adaptation, L&D forms a third pillar of the climate action under the United Nations Framework Convention on Climate Change (UNFCCC) (van der Geest and Warner, 2020, p. 729). L&D is a fairly new but particularly important concept in the sphere of negotiations and policy, referring to "both a policy mechanism and the sum of impacts inflicted by climate change and extreme events. They can be both financial and physical, and include the loss of property, assets, infrastructure, agricultural production and/or revenue, but also extend beyond this and can be difficult to quantify in economic terms. Degraded health, losses induced by human mobility, loss of cultural heritage, and loss of Indigenous and local knowledge are such examples." (Boyd et al, 2021, p. 1365). And as Wilson et al (2021) argue, L&D is basically a robust application *of polluter pays principle* in the UNFCCC (Wilson et al, 2020, p. 59).

2.1.2.1 Climate Justice Within the Paris COP21 Negotiations and Outcomes

COP21, the 21st session of the Conference of the Parties to the UNFCCC, is often described as a breakthrough in climate negotiations and global politics in decades. Its outcome was the Paris Agreement, an international treaty on climate change signed by 196 Parties, pledging to reduce their emissions (known as Nationally Determined Contributions, NDCs) with the goal of limiting global warming below preferably 1,5°C in comparison to pre-industrial era, or well below 2°C. However, the summit's negotiation process and outcomes symbolize a shift from top-down model with principles based on justice to guide the responsibility distributions towards bottom-up model with principles of voluntariness and disbursed responsibility (Murphy, 2019, p. 71), and therefore have vast implications for climate justice.

Justice-based principles were characteristic for the Kyoto Protocol – formal legally binding agreement "with prescribed targets for emission reductions, rights and responsibilities allocations across states, with the most highly industrialised developed states carrying the responsibility to drive mitigation and adaptation actions – including financial, technical and capacity-building support to developing states" (ibid). Whereas with the emergence of the legally non-binding Paris Agreement, as a result of responsibility being disbursed across wide range of stakeholders there are risks and unclarity of the rights protection of populations affected by climate change; and countries historically responsible for emitting the most of GHG emissions are not held accountable (Murphy, 2019, p. 75).

In her evaluation of the Paris Agreement, Murphy (2019), in the same vein as Okereke and Coventry (2016), argues that because the document "does nothing to address the unequal starting positions of the Parties" (Murphy, 2019, p. 78), there are no instruments to hold emitters accountable or to sanction them for not delivering on their commitments, and no monitoring indicators of justice or equity; it leaves a lot of room for exacerbating already existing climate inequalities and a little room for climate justice concerns of vulnerable and historically marginalised populations burdened the most by climate crisis (ibid). In the same vein, Okereke and Coventry (2016) comment on the shortcomings of the system which Paris Agreement is part of: "The Paris outcome on loss and damage reveals important boundaries and power-dynamics of the international regime, and highlights the way domestic political

circumstances in developed countries can influence the way justice is realized or avoided in the international regime" (Okereke and Coventry, 2016, pp. 844-845). Nevertheless, Jacobs (2022) stresses that "the reason the Paris Agreement takes this form was that it was the only way to achieve a universal agreement in which all countries have the same general obligations ... for the first time, every country in the world had to tackle its emissions" (Jacobs, 2022, pp. 2-3).

Besides the fact that there is no mention of fossil fuels in the Agreement, even though the burning of them is the cause of the anthropogenic climate change (Baumann, 2022, p. 38), Murphy (2019) also warns about the appalling absence of signs inclusive participation:

> "For example, the term gender is mentioned only twice (Article 7, in relation to adaptation, and Article 11, in relation to capacity building); indigenous populations are only mentioned once (Article 7); and human rights and justice do not feature in any of the substantive articles of the text. Indeed, reference to "Climate Justice" is noted as an important concept "for some" when taking action on climate change. Earlier drafts of the negotiating texts included substantially stronger commitments to justice, rights and the protection and promotion of the interests of marginalised populations .... The intentional removal of such text from the substantive articles and the apparent decreasing commitment to these elements does not point to advancement for justice in this regard." (Murphy, 2019, p. 79)

As Murphy (2019) points out, the most vulnerable countries to climate change and developing countries insisted on acknowledging and recognising of L&D in the Paris Agreement, even though it was met with disapproval from developed countries which in the COP21 negotiations argued that they "would not accept any basis for liability and compensation for historical responsibilities" (Murphy, 2019, p. 79). Even though L&D was finally included in the Article 8, its importance was dismissed by accompanying Decisions document which "removed the possibility of using this as a basis for remedial justice, the attribution of liability or the possibility of compensation" (ibid). As such, Murphy (2019) describes the treatment of L&D in the COP21 negotiations and outcomes as "an interesting example of voices being raised but not being heard" (Murphy, 2019, p. 29). Overall, she argues that the Paris Agreement still "represents a small step towards more just rather than less just outcomes, albeit imperfect and incomplete. This is to be welcomed and protected in the contemporary non-ideal circumstances of the global climate change regime." (Murphy, 2019, p. 80)

In the next part, I will focus on how this new climate justice agenda in the world of negotiations and policies was treated at COP26 in Glasgow 2021.

2.1.2.2 Climate Justice Within the COP26 Negotiations and Outcomes

COP26, the 26th session of the Conference of the Parties to the UNFCCC held in Glasgow in November 2021, was promoted as a climate summit to step up the goals of the Paris Agreement or at least to 'Keep 1,5°C Alive'. As a result of COP26 was adopted Glasgow Climate Pact, a document directly related to the Paris Agreement. And even though it was expected (or rather hoped for, considering the context of coronavirus pandemic resulting into economic crisis and exacerbating already existing inequalities, as Boyd et al (2021) argued before the summit) to be another turning point in climate negotiations, there seems to be consensus among activists, leaders, and scientists that this summit did not bring many achievements but rather frustration, challenges, and a watered-down climate deal (Arora and Mishra, 2021).

Probably the best example could be the fact (for many populations of small island developing states a life-threatening) that the NDCs commitments made at COP26 imply global warming well beyond 2°C, let alone the ideal 1,5°C – as of now, according to the last IPCC report AR6, we are on track for 2.2°C to 3,5°C (IPCC, 2022c, p. 21) and thus entering an extremely dangerous and uncertain territory of climatic tipping points (Issa and Krzanowski, 2021, p. 1). However, Baumann (2022) concludes that "from a perspective of climate diplomacy, it was a relative success" (Baumann, 2022, p. 38) and "a glass that is more than half full" (Baumann, 2022, p. 40), for the reasons of the Glasgow Climate Pact being adopted which "sets up processes toward delivering serious adaptation, higher levels of climate finance, and finance for loss and damage" (ibid); and commitments being made on reducing methane emissions, halting deforestation by 2030; and pledge by several countries on phasing out coal plants (Baumann, 2022, p. 39).

Another reason this summit brought a lot of frustration for activists, developing countries, and leaders who understand the urgency of climate crisis, was the representation gap, i.e., the lack of representation of frontline communities compared to non-renewable lobby. At

COP26, it was fossil fuel lobby who had the largest delegation of all, and as such outnumbered the delegates from every single country. It had more than double the number of the Indigenous delegates, and it even outnumbered the delegations from eight countries that are the most impacted by climate change (BBC, 2021). It is important to mention that this was the first time since COP officially stressed the need to scale down on fossil fuels, however in the final document the wording of the Glasgow agreement changed last minute from a phrase *phase out* to *phase down*, also for the fact that "while more than 40 countries agreed to quit coal for power generation and 23 countries signed for 'COP26 Coal to Clean Power Transition Agreement' for the first time, some of the largest coal producers went missing from the agreement including Australia, China, India and US" (Arora and Mishra, 2021, p. 586).

Photo 2.: *The COP26 speech of Tuvalu's foreign minister Simon Kofe was filmed as he was standing knee-deep in the ocean to highlight the effect of rising sea levels on the small island state in the South Pacific. Source : https://www.cnbc.com/2021/11/08/tuvalu-minister-gives-cop26-speech-knee-deep-in-the-ocean-to-highlight-rising-sea-levels.html*

Developing countries, drawing from the concept of climate justice, had three principal demands at the COP26. First was the demand of more financing for Global South – this demand was not as successful, second was the demand of larger shares of financial flows devoted to

adaptation rather than mitigation by LDCs and small island nations – this demand was partially met. And lastly, third demand was the recognition of climate change impacts resulting into loss and damages – such recognition was demanded to be reflected in liability and thus financial compensation from the prosperous developed countries responsible for most of global GHG emissions – this demand was not met, the decision of developed countries was only a commitment to a dialogue and discussion of arrangements for the future. Developing countries were pushed to accept this outcome, however they will continue to push for it again in the next COP27 in November in Sharm El-Sheikh, Egypt (Jacobs, 2022, pp. 6-7). Nevertheless, Haq (2021) points out, that L&D debate went beyond the COP26 venue and resulted into creation of a new L&D Fund, to which financially contributed Scotland, Province of Wallonia in Belgium, and several philanthropic foundations.

2.1.2.3 "Greening the economy" and Just Transitions

As a consequence of the Paris Agreement, the climate and energy policies of states and regions were affected. However, important "momentum to a new era of integrated climate policy to address all facets of the climate crisis" (Boyle et al, 2021, p. 11) bring also the citizens, as they are more aware of the social and environmental effects of climate crisis and more concerned over the effects of climate change finally hitting the prosperous countries (for example the climate-change related events in 2021 – the deadly floods in Germany, Belgium and Australia, the mega-fires all over US and Siberia, the heatwaves running through US, Asia and Europe). Therefore, we are now seeing a shift towards climate justice-sound policies also on regional and national levels.

One of such integrated climate policies are the projects of *just transition*. Their aim is empowering, supporting, and prioritizing the communities that would be most affected by the shift to fossil-free, renewable-based low-carbon economy. The definition of just transition by International Labour Organization is as follows:

> "A Just Transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind. A Just Transition involves maximizing the social and economic opportunities of climate action, while

> minimizing and carefully managing any challenges – including through effective social dialogue among all groups impacted, and respect for fundamental labour principles and rights." (ILO, 2022)

First and probably the most known example of such major policy packages would be the US *Green New Deal* (GND) proposed in 2018. In 2019, it was followed by the *European Green Deal* (EGD) launched by the European Commission, together with policy package *Fit for 55* setting a target for climate neutrality by 2050 and a 55% reduction of CO2 emissions by 2030. In 2020, European Comission published its plan how to finance such transition - the Just Transition Mechanism (JTM) and Green Deal Investment Plan. The focus is placed primarily on regions with significant challenges resulting from fossil fuel mining and extraction, and carbon-intensive industries. The objective is to help such dependent regions to "restructure their industries; ensure that new economic activities can keep the economic and social texture together, respecting the environment; and provide the necessary training to the workers concerned to find new jobs" (DG REGIO, 2021).

As both Boyle et al (2021) and Skjærset (2021) argue, the timing of both policy packages (GND and EGD) is probably in their favour, regarding the coronavirus pandemic resulting into recession which considerably changed the political and economic environment and created "new windows of opportunity for transformative economy-wide policies" (Boyle et al, 2021, p. 11) and "for stepping up ambitions" (Skjærset, 2021, p. 38).

In Czech Republic, a discussion over just transition escalated in 2017 with the Strategic Framework for Economic Restructuralization of the Ústecký, Moravskoslezský and Karlovarský regions. Following the European Green Deal have been since then launched by Czech government an Operational Programme Just Transition. Now the debate revolves around EU's instrument JTM and Just Transition Fund, with total funds to be allocated in Czechia amounting to EUR 1.64 billion (Heuer, 2018). In 2022 a document called Nová dohoda (New Deal) was published as a result of one year long round tables with experts from academia, ecological, social, and trade union sectors. The document deals with several interconnected topics – democracy, care, work, housing, landscape, agriculture, just energy transition, transport, decarbonisation, use of sources, finances, and economy. Its aim is to start discussion about the need for just ecological and social transition in times when we face several

crises at once – climate, ecological, coronavirus, and social; make it a priority of both citizens and the state so the policies proposed by Nová dohoda will be implemented (Nová dohoda, 2022).

Another external factor which will indisputably have an impact on (primarily) Europe's climate and energy policy and transition is unfortunately the Russian invasion of Ukraine, which broke out during the time of finishing this master thesis. Besides other things, this war has also underlined the painful reality of Europe's energy dependence on Russia. Unsurprisingly, there is no consensus neither over how the war in Ukraine will play out, nor whether the goals set out by EGD are now predicted to fail or whether it is another window of opportunity. Like in every situation, there are sceptics and optimists, however the break away from Russian fossil fuels is inevitable. As of now, in March 2022 the European Commission proposed a new strategy called *REPowerEU: Joint European action for more affordable, secure and sustainable energy* to eliminate its dependence on Russian gas well before 2030 (European Commission, 2022).

2.1.3 Climate Justice as a Normative Inquiry

On the other hand, climate justice as a normative inquiry is concerned with norms, principles and developing of theory of justice resistant to the test of rational scrutiny (Boran, 2019, p. 27). The body of work which started elaborating on the moral consequences of global warming began in 1990s, however the most considerable philosophical attention on climate change has been since 2004, now known as *climate ethics*. The main message of this field of study is that climate change is primarily a moral problem and that "arguments informed by moral principles, not by economic or administrative expediency, should shape policy" (Boran, 2019, p. 28). As Moellendorf (2012) and Boran (2019) note, the first generation of climate ethicists understood climate change and its moral implications as an extension of another field called *global justice* and its moral cosmopolitanist approach supporting "the principle of moral equality of all" (Boran, 2019, p. 29). Another source of influence are the multilateral negotiations related to the Kyoto Protocol. Both of these influences resulted into "solidifying an allocation-centrist approach to climate justice" (ibid). The mainstream discussion about climate ethics is led by philosophers, scientists, legal scholars but also economists, who are interested in the anthropocentric climate ethics, where "the nonhuman world is understood to be of indirect moral concern… the ground of concern is human beings" (Palmer, 2011, p. 272).

Therefore, in the next chapters I will focus on this notion of climate justice as an inquiry in more depth, present an overview of ethical theories its main tenets and areas of discussion. I will firstly concentrate on what I call the mainstream climate ethics (anthropocentric) and afterwards the non-mainstream climate ethics (intersectional, decolonial, ecofeminist, and mainly non-anthropocentric).

2.2 Mainstream Climate Ethics

2.2.1 Climate Change – The Perfect Moral Storm

Stephen Gardiner, a prominent climate ethics philosopher interested in ethical theory, political philosophy, and environmental ethics, defines climate change as a perfect moral storm and states that this results especially from three separate storms merging into one, and "are all obstacles to our ability to behave ethically" (Gardiner, 2011, p. 7). The obstacles are:

First obstacle: the global storm

Climate change is a global phenomenon where the rich nations of the global North have asymmetric power and control what is being done in ways that favours them at the expense of the world's poorest nations and its people (ibid). It exists therefore as a spatial and geopolitical problem characterized by "dispersion of causes and effects, fragmentation of agency, and institutional inadequacy" (Gardiner, 2011, p. 24).

Exacerbating factors of this storm, which make the necessary global cooperation more difficult, are uncertainty about the climate change impacts – we lack precise data of its magnitude or distribution, we only have scenarios. Second factor are the deep roots of climate change in energetical infrastructure based on burning of fossil fuels. And lastly, skewed vulnerabilities present the third exacerbating factor, meaning that impacts of climate change are disproportionate, so developed rich nations responsible for historical and current emissions should engage on topics about their role and legacy of colonialism, human rights, poverty, and economic injustice; topics which are not so comfortable (Gardiner, 2016, pp. 16-21).

Second obstacle: the intergenerational storm

The generations of today have asymmetric power over the future of next generations (Gardiner, 2011, p. 7). The main problem lies in the emissions of greenhouse gases and the time they are present in the atmosphere. On the case of carbon dioxide, Gardiner points out three impacts of the temporal nature of climate change – (1) it is a resilient problem, (2) it is a back-loaded phenomenon (meaning that the effects of climate change we experience today are not

result of current emissions, but of a historic ones), and (3) it is substantially deferred phenomenon (meaning that the cumulative impacts of current emissions will be realized in future). These impacts allow space for institutional inadequacy (Gardiner, 2011, pp. 32-34).

The exacerbating factors is the serious threat of escalation, meaning that current generations not only pass on their problem to future generations, but they are making it worse. Second factor is that insufficient climate action will result into unnecessary suffering of future generations. This inaction will result into necessary tragic choices, which would be otherwise morally unjustifiable (Gardiner, 2016, pp. 29-30). For Gardiner, the intergenerational storm is the most crucial one of all (Gardiner, 2011, p. 7).

Third obstacle: the theoretical storm

Gardiner observes that there is a lack of developed ethical theoretical grounds and tools on the topics resulting from this environmental catastrophe (Gardiner, 2011, p. 7), and warns us that "we are extremely ill-equipped to deal with many problems characteristic of the long-term future" (Gardiner, 2011, p. 41).

Fourth obstacle: the ecological storm

In his more recent book, Gardiner (2016) adds fourth, ecological storm. It is again defined by dispersion of causes and effects, not limited only to humans, but climate change inevitably impacts also fauna, flora and ecosystems, as was outlined in the chapter on the latest IPCC report AR6. This storm concerns our relation to Nature and our position on this planet, our value systems and whether we take on anthropocentric or non-anthropocentric stands. The exacerbating factors are the reach of human impact on the natural world, resulting in large human responsibility over the future of natural world. Last factor exacerbating this storm is that human colonization of nature will be encouraged (Gardiner, 2016, pp. 32-37).

Gardiner explains that each obstacle impedes ethical action and all of them together are mutually reinforcing, therefore the problem becomes more severe and also they allow space for what he calls *the problem of moral corruption* – meaning that "perfect storm puts pressure on the very terms in which we discuss the environmental crisis, tempting us to distort our moral

sensibilities in order to facilitate the exploitation of our global and intergenerational position" (Gardiner, 2011, p. 8). In short, there is a vital need for climate ethics – in the most general sense, there is a need of account of moral responsibility, and at practical level ethical considerations are involved in the policy making (Gardiner, 2011, p. 20).

2.2.2 Main Areas of Climate Ethics Debate

Almost two decades ago, Stephen Gardiner argued that climate change is primarily an ethical issue and thus a sign for philosophers so centre on this topic (Gardiner, 2004). Since then, several other philosophers (although it concerns quite homogenous group of mainly white males from the Global North) produced a large magnitude of texts on the much important ethics of climate change and its effects. Thus, the principal areas of conventional ("mainstream") climate ethics debate can be divided into three perspectives as proposed by Boran (2019) – distributive justice vs. corrective justice, egalitarianism vs. basic rights, and global justice vs. intergenerational justice. In next chapters follows more detailed characterization.

2.2.2.1 Distributive Justice vs. Corrective Justice

Both approaches are not mutually exclusive and argue for "holding developed countries morally responsible to take on a heavier burden in the global response to climate change" (Boran, 2019, p. 30). Distributive justice ideals stand for allocation of responsibilities related to climate change that should be sensitive to wealth and income inequalities, i.e., the burden of justice towards less well of falls on those who are better off. It is a non-historical approach standing on principle of *ability to pay.* On the other hand, corrective justice ideals stand for "allocating responsibilities to correct or remedy a wrong, past or present" (Boran, 2019, p. 30). As such it is standing on principle of *historical responsibility*, arguing that fair allocation should consider past practices of developed countries who should bear heavier burden of emission reduction. This is a discussion about the fact that the most climate vulnerable countries, regions and communities have contributed to climate change (GHG emissions) the least as opposed to developed countries who benefited from industrialization and colonialism at the expense of developing countries. Critique of this approach entails the debate over the fact that previous generations responsible for accelerating climate change did not have the

knowledge about the atmospheric processes and their fault; and whether the responsibility should be on a state or an individual level (Boran, 2019, pp. 30-31).

2.2.2.2 Egalitarianism vs. Basic Rights

Proponents of egalitarianism ground their argument of *equal atmospheric shares* in the principle of moral equality, meaning that "if everyone is a moral equal as a matter of universal principle, then each has an equal moral claim to the Earth's resources" (Boran, 2019, p.32). The debate is also over the logic of the equal atmospheric shares – whether the absorption capacity of atmosphere should be counted from now onward or it should be retrospective, counting also countries' past GHG emissions. Critique of this concept entails the discussion over countries' population size and the implications for densely populated countries on polluting, and that it leads to commodification of atmosphere and reinforcing of "zero-sum logic where one's gain is the other's loss" (Boran, 2019, p. 33). Proponents of basic rights focus on protecting basic human rights related to health and subsistence (which I discussed in chapter *Climate Change and Human Rights*) of those vulnerable to climate change effects. Some criticise this concept for setting the bar (only meeting the most basic needs) too low. Both of these approaches argue the same as before, that developed countries should have taken on a heavier burden of climate action (ibid).

2.2.2.3 Global Justice vs. Intergenerational justice

Arguments for global justice were mentioned above in approaches (1) and (2). A different take on climate justice have the proponents of intergenerational justice arguing for the need of moral responsibility towards future generations, signifying that there is an intergenerational conflict of interests. The discussion within the intergenerational justice approach concerns two topics – whether we should be discounting the costs related to climate action, and "whether responsibilities can be meaningfully grounded toward people who do not exist today" (Boran, 2019, p. 34). Intergenerational justice suggests that no generation should have "superior claim to the earth's resources, yet power is unfairly concentrated and accumulated among adult generations" (Ursin et al, 2021, p. 1). According to Kanbur and Shue (2019), climate justice "requires sharing the burdens and benefits of and its resolution equitably and

fairly. It brings together justice between generations and justice within generations" (Kanbur and Shue, 2019, p.1). It deals with implementation of such interventions that would reduce today's greenhouse emissions so they "do not end up creating injustice in our time by hurting the currently poor and vulnerable" (ibid). How can be intergenerational justice applied in real-life praxis? As Skillington's (2019) analysis of coalitions and youth-led legal cases pursuing climate justice through the courts, there is a rapidly growing body of young generation advocating for their rights that are to be diminished by climate change effects not only through activism, but also through law. This field offers them compensation of the youth campaigners' lack of voting rights and their activity sheds light on to "how a logic of exclusion has worked to silence voices of dissent and to prevent a fuller recognition of the rights of youth to a safe and healthy future" (Skillington, 2019, p. 97). There have been already other attempts to ensure that future generations who do not enjoy legal rights at international law will have a say in decision-making concerning their future. For example, the proposal of creation of Ombudspersons and High Commissioners for Future Generations; or "electoral innovations that weight votes in favour of children and youth; parliamentary committees for the Future; constitutional provisions that explicitly grant rights to future generations" (Harris, 2021, p. 679).

Although I will focus on this topic in more detail in chapter 2.3.1, *Intersectional Ecofeminist Climate Ethics,* following the chapter on the linkages of climate change and gender, I would like to shortly attend to Perkins (2019), who insists that all of these principal areas of climate ethics discussion are gendered and needs to be reflected:

> "These differences – which together underlie distributive and procedural climate injustices – are deeply gendered everywhere in the world; denying or disregarding this reality both heightens longstanding injustices and hampers efforts to address climate change … There are other aspects of climate justice which also are gendered: intergenerational justice (the rights of those who are not yet born to inherit a liveable Earth, and the responsibilities of people who are alive now for the future impacts of current decisions and consumption which will have long-term impacts on those not yet born), interspecies justice (consideration for non-human species and for protecting biodiversity), and corrective , retributive, or restorative justice (fairness in the measures taken to address unjust situations)." (Perkins, 2019, p. 349)

2.2.3 Chosen Topics of Climate Ethics Debate

Apart from the focus on fair allocation of emissions, implications for policy making, and protecting basic human rights, mainstream climate ethics debate also discusses other important topics that need ethical consideration, although they are still following the anthropocentric framework (McShane, 2016, p. 195). Drawing from the handbooks and essential readings on climate ethics published by prominent university publishing press houses such as Oxford, Yale or Harvard University Press, the debate also includes topics such as scientific uncertainty versus the *precautionary principle*, explained as: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically" (Wingspread Statement, 1998). Other themes discussed are geoengineering, or individual and corporate moral obligations, which I shall analyse in following chapters in more detail. Finally, I will address the criticism targeting these conventional normative ethics on climate change.

2.2.3.1 Geoengineering

This is a debate on the morality of intentional large-scale manipulation of the climate system as solution for climate change, otherwise known as climate engineering. The support of geoengineering largely falls into the eco-modernist paradigm believing that with technology humankind has the power of fundamentally altering the Earth system (Schmidt et al, 2016, p. 6). Nevertheless, Gardiner (2010) finds other pro-geoengineering arguments – some advocate that it is more cost-effective solution than mitigation; that it should be used to give us more time for implementation of mitigation policies; or that it should exist only as a choice of last resort to avoid catastrophe (Gardiner, 2010, p. 285).

As Brooks et al (2021) note, recognition of ethical dimension of geoengineering also follows an overall interest in incorporating ethics into the development of new technologies and artificial intelligence (AI) by governments, investors, and NGOs (Brooks et al, 2021, pp. 1-5). Climate engineering was considered for three decades as a suspicious idea and was met with hostility, therefore it was not much explored and there was no ethical theory proposed. However, this changed with a suggestion by Crutzen (the climate scientist who coined the term Anthropocene) to explore geoengineering as a solution to climate change, which resulted into major interest in it in both media and academia (Gardiner, 2010, pp. 284-286).

The question that climate engineering also poses is whether it will not rather exacerbate both environmental harms and social inequality due to its potential of possible human rights violation. Another important criticism of geoengineering is that it is a mere continuation of using technologies which resulted into the crisis that we are now facing. Geoengineering entails significant (un)known risks and its use would affect the entire world, which suggests that there is a need of decision-making by an international body. However, as Singer notes, the existence of such institution would inherently mean that there is a threatening possibility for the approval of a case arguing for use of geoengineering (Singer, 2016, pp. 64-68).

Drawing from non-anthropocentric ethics, Katz (2020) criticizes the attempts to control and design our environment; and argues that the project of "geoengineering requires a funda-

mental belief in the human domination of the Earth (Katz, 2020, p. 29). He suggests that geoengineering symbolises paradigmatic example of the Anthropocen's anthropocentrism – the domination of natural world, and it is an intensified continuation of both the physical and epistemological domination. According to Katz (2020), the intentionality of geoengineered forms of planetary change results into planet as "a human artifact, a highly complex machine designed and managed by human-centered interests and goals" (Katz, 2020, p. 26).

An example of climate engineering is the radical idea of cooling down the planet's surface through blocking solar radiation by stratospheric sulfur aerosols injection which would create sulfuric acid clouds. Proponents of this idea see its advantage in the fact that it would reduce the need of emission reduction and that it does not require global cooperation. However, As Gardiner (2016) points out, such decision would involve cooperation over political decision-making; the feasibility of such decision is still questionable; and primarily it would impact everyone, therefore it should entail the consideration of distributive justice (Gardiner, 2016, pp. 126-127).

2.2.3.2 Individual Moral Obligations

The debate of individual moral obligations in climate ethics evolves around how are individuals responsible for climate change and whether there are any moral principles defensible to support the claim that an individual has a moral obligation to not do some type of activity that is contributing to the climate change problem, in other words, whether individuals have responsibility to change their consumption behaviours and thus reduce their GHG emissions. This discussion stems from the fact that when people collectively pursue some type of action, they can collectively cause morally significant (both harmful, or beneficial) outcomes, but separately no individual act makes a difference. This vast topic draws from Kantian, utilitarian, and virtue ethics (Gardiner, 2010; Sinnott-Armstrong, 2010).

On one side of the debate are proponents of the argument that individuals have no moral obligation to change their lifestyle because their consumption behaviours are inconsequential. One of them is Sinnott-Armstrong, who in his essay takes the example of unnecessary joyous car rides on which he applies several moral principles ranging from actual act principles, internal principles, collective principles to counterfactual principles (Sinnott-Armstrong, 2010, pp. 334-343). He concludes that none of them are defensible, thus, we do not know whether such car rides are morally wrong, and therefore actions of individuals do not violate moral obligation. Although it is still morally better and ideal to not produce GHG emissions, individuals have no moral obligation to reduce their production (ibid). Sinnott-Armstrong then argues that climate change and global warming are such a huge issue that it is not up to individuals to fix it because they did not cause it. It is up to the governments to act and fight climate change, and the only moral obligation we as individuals have is "to get governments to do their job to prevent the disaster of excessive global warming. It is better to enjoy your Sunday driving while working to change the law so as to make it illegal for you to enjoy your Sunday driving" (Sinnott-Armstrong, 2010, p. 344). In other words, individuals have only political responsibilities to support effective institutions in climate action, an argument which has near universal support among climate ethicists (Bell et al, 2019, p. 613).

The proponents of the other side, such as Jamieson, suggest that individuals should be responsible in their lifestyle choices. Jamieson, drawing from utilitarian grounds (suggesting

that we are morally required to act in a way to bring about the best world possible), argues that we should develop a catalogue of green virtues (such as cooperativeness, mindfulness, simplicity, temperance, and respecting nature) independent on actions of others because the unprecedent state of the planet requires it (Jamieson, 2010, p. 316-326). However, proponents of individual reductions acknowledge that such demands on individuals should be context sensitive because everyone has different abilities which limit how much they can change their patterns of consumption towards more responsible. Following this argument, Falqhuist (2008) argues, that it is corporations and institutions who "are responsible because they have the power to create opportunities for individuals to do what is right" (Falqhuist, 2008, p. 119) – they can regulate the choices of consumers through greater availability and affordability od goods and services with lower carbon footprint. Therefore, if governments, institutions and corporations are able to make for example public transport more accessible, or subsidize organic foods, they have responsibility to do it (ibid).

In their essay, Bell et al (2019) criticise the approach of proponents of individual responsibility for their acknowledgement that responsibility of individuals is limited and should be contect-sensitive – Bell et al (2019) do argue, that these limits are not explored systematically, and therefore this context-sensitive suggestion functions only as void argument. In response, Bell et al (2019) propose a multidisciplinary approach of '*climate ethics with ethnographic sensibility'* which uses real-life cases instead of hypothetical ones as did for example Sinnott-Armstrong (2010) mentioned above with the hypothetical case of joyous Sunday driving. The main disadvantage of the conventional approach is that it

> "relies on hypothetical, idealized conceptions of moral agents, which are not consistent with our best background theories in psychology and related disciplines" (Bell et al, 2019, p. 612). "…normative analysis of real-life cases can help us to develop a more systematic understanding of the role that different contextual factors should play in determining individual climate responsibilities. It can also help us to avoid the twin dangers of 'idealization' and 'special pleading'" (Bell et al, 2019, p. 611). "…climate ethics should be for people here and now; not for hypothetical agents that are radically different from real people…" (Bell et al, 2019, p. 622)

2.2.3.3 Corporate Responsibilities

Following the discussion on individual moral obligations towards GHG emission reduction, within the climate justice activist movement, there seems to be support of both arguments, resulting into merging them together – climate activists do tend to adopt personal virtues, 'go green' and make 'green', responsible, ethical choices (such as zero waste shopping, reducing air and car transport, being on flexitarian, vegetarian or vegan diet, etc), they still primarily emphasise the importance of systematic changes and keeping corporations who are historically responsible for GHG emissions accountable. This view also supported by philosophers and climate ethicists who declare that 'Big Oil' companies do have moral responsibility for climate change.

For example, oil corporations were actively supporting and financing disinformation campaigns against climate change, manipulating public opinion and perceptions on it, and therefore prevented effective climate mitigation policies, in order to protect corporate profits, while they were informed about the harmful impact of their activities "at least since the first IPCC report of 1990" and thus could have act on such alarming information (Grasso, 2019, p. 255). A good example is ExxonMobil, who was actively lobbying against the Kyoto protocol (Hormio, 2017, p. 325), or that the invention of carbon footprint was in fact an invention of 'big-oil' company British Petroleum (the world's second largest non-state-owned oil company) who were trying to relocate the fault and burdens of GHG emission reduction onto individuals (Solnit, 2021).

Considering these facts, and that the cumulative GHG emissions of major 60 oil and gas companies amounted to 40% in the period 1988-2015, Grasso (2019) stresses that oil companies "should play its part in global climate governance, along with states, individuals, and other agents ... since oil and gas companies have a crucial role in causing, shaping, advancing, and defending the current unsustainable fossil fuel-dependent global economy" (Grasso, 2019, p. 252) and since their activities "directly and profoundly harmed the planet and humanity" (Grasso, 2019, p. 254). He then continues, that there is a need to specify the moral responsibility of gas and oil companies as a collective one, as they are considered to be conglomerate collectivities (Grasso, 2019, p. 256).

Prattico (2019), not necessarily talking only about the Big Oil entities, adds, that "while business is clearly taking on a part of the burden of climate change – whether through finance or business models – it can only be a complement, and not a substitute, to burden-sharing rules at the transnational level that remain bound by ideas of justice" (Prattico, 2019, pp. 205-206).

In recent years, across both Global North and South, we are witnessing a wave of private climate litigations addressing corporations to be legally hold accountable for their (in)actions towards climate change. These lawsuits against corporations (and governments, as I described in chapter on *Climate Justice as a Social Movement)* are encouraged also by prominent climate scientists such as James Hansen from NASA, or economist Jeffrey Sachs (Ganguly et al, 2018, p. 841). Ganguly et al (2018) states that although the first wave of private lawsuits was unsuccessful due to "failure of plaintiffs to establish sufficient casual links between climate harm and defendant conduct" (Ganguly et al, 2018, p. 867), now there is being made a progress with innovative strategies and the shift within the legal discourse, contributing to a higher likelihood of success (ibid). Ganguly et al (2018) also highlight the many other benefits which can be drawn from such private litigations:

> "Even if a corporation avoids being held accountable by climate change victims, it may incur a series of costs in terms of liability for future climate harms, reputational damage and ongoing public scrutiny and pressure to disclose climate change risk. Moreover, governments may challenge private corporations for withholding from the public and investors information about climate change and its risks. Furthermore, company executives and directors may be directly sued for breach of their fiduciary duties and obligations to consider and disclose climate change risk." (Ganguly et al, 2018, p. 867)

2.2.4 Climate Engaged Ethics

Many scholars find climate ethics not effective and agree on the disconnection between the normative climate justice approach and the climate justice movement, arguing that "as much as their interests and ideas may overlap, these theorists rarely cite movements, and movements do not commonly refer to academic journal articles to clarify their positions" (Schlosberg and Collins, 2014, p. 365), or that "normative inquiry into climate justice has not prioritised empirical examinations assessing the workability of its propositions. The debates are rich in arguments but poor in case studies" (Boran, 2019, p. 35).

Following the criticism of climate ethics shortcomings, I will now present the proposed idea of *engaged climate ethics* by Green and Brandstedt (2020), who bring an interesting twist to normative climate ethics and the praxis of their creators. They argue for creating synergies and harnessing the potential of climate justice movements and climate justice as an inquiry. In their essay, they explore the real potential of normative climate ethics, to contribute to a real-world climate action. They conclude that "principles-first non-ideal theorizing … has limited capacity to contribute to such action" (Green and Brandstedt, 2020, p. 563). Green and Brandstedt suggest that if the theorists' aim is to contribute to actual climate action through their theories of climate ethics, they argue for them to use an "engaged methods [that] have a greater potential to contribute to desirable real-world change than the standard, principles-first approach to non-ideal theorizing about climate change" (Green and Brandstedt, 2020, p. 560).

They envisage for ethicists and theorists concerned about climate crisis to substantially interact with the real agents of change to create synergies with the climate and social movements. The proposed 'engaged methods' to be used are ethnographic engaged methods (Green and Brandstedt, 2020, p. 552), activist engaged methods (Green and Brandstedt, 2020, p.554), and committee-based engaged methods (Green and Brandstedt, 2020, p. 558). In reality that means for example bringing their skills to co-creation of "normatively informed strategies and tactics for framing and movement-building" (Green and Brandstedt, 2020, p.

557). Simultaneously, they argue for challenging academic structures that could seem as obstacles to such engaged ethics, and for a "reform project that should lead us [philosophers] to reflect on our own role as potential agents of change" (Green and Brandstedt, 2020, p. 563).

Following the first chapter where I discussed the topic of diversity and IPCC, in his essay, Tremmel (2019) points out that nowadays, climate ethicists and "philosophers play an increasingly important role in the Intergovernmental Panel on Climate Change … for a long time, scholars from normative disciplines (such as moral and political philosophers and theorists) were not part of the IPCC" (Tremmel, 2019, pp. 51-52). We could thus argue that climate ethicists are engaged not only in producing ethical theories, but they are involved also in a praxis which have significant impact on decision making and climate action.

2.3 Non-Mainstream Climate Ethics

The last part of this thesis is dedicated to climate ethics which are not present in the mainstream body of climate ethics - the non-anthropocentric, decolonial, and ecofeminist approaches, which are, in my opinion, as much needed and important.

2.3.1 Intersectional Ecofeminist Climate Ethics

For the scope of this thesis, I will only present the non-anthropocentric climate ethics in more detail, however I consider necessary to mention that there is a clear dissatisfaction with conventional climate ethics, and many scholars and academics call for intersectional, decolonial and (eco)feminist climate ethics, arguing that both the roots and impacts of climate change are related to gender, race, white supremacy, and the human/nature dualism, and anthropocentrism (Serafini, 2021; O'Brien, 2020; Allison, 2017; Gaard, 2015).

Greta Gaard (2015), ecofeminist scholar, writer, and activist discusses the need for an intersectional, queer, posthumanist, ecological and (eco)feminist ethical approach to climate change that would be able to address the shortcomings of "the mainstream scientific response to climate change: the linked rhetorics advocating population control, anti-immigration sentiment, and increased militarism" (Gaard, 2015, p. 20), which do not reflect the root causes of climate crisis and serve as a protection of the status quo:

> "Contemporary feminist justice ethicists have critiqued the masculinist bias of traditional western ethics for the ways it overvalues reason and objectivity, devaluing women's standpoints and women's work and envisions justice-as-distribution of resources among discrete individuals with rights, rather than emerging through relationships which shape participant identities and responsibilities (Jaggar, 1994; Warren, 1990; Young, 1990). … But a feminist ethical approach to climate justice—challenging the distributive model that has ignored relations of gender, sexuality, species, and environments—has yet to be fully developed." (Gaard, 2015, p. 20)

In his essay, O'Brien (2020) insists that "ethicists from privileged identities have a responsibility to develop and commit to an intersectional understanding of climate change" (O'Brien, 2020, p. 328). For climate ethicists, according to O'Brien (2020), this has methodological consequences:

> "Intersectional thinking means that climate ethicists who want to take white supremacy seriously must study not only racism, but also sexism, heterosexism, classism, and many other forms of injustice. People from different identities experience climate change differently. So, a responsible approach to climate change requires a nuanced account of the ways dominant social structures have distributed risks inequitably. Methodologically, this means a commitment to a broad range of sources that offer insights from distinct identities and histories. In contexts where white, male, and economically comfortable voices have traditionally dominated, ethicists have particular responsibility to learn from and highlight the perspectives of people from marginalized identities." (O'Brien, 2020, p. 316)

I would like to shortly present one proposal of decolonial, ecofeminist ethic of care which could be applied to climate crisis. In her essay, Serafini (2021), discusses how the covid-19 pandemic presents an opportunity from which we can and have already learnt that "We need to care for others in order for our societies and ecosystems to thrive. Explicitly, our own health depends on the health of other humans, and on the status of the ecosystems close and far (The Care Collective, 2020, cited in Serafini, 2021, p. 223). Serafini (2021) calls for decolonial and ecofeminist ethic of care, which "involves caring for humans, more-than-human beings and the elements of our planet at the same time, acknowledging the interdependence of different components in our ecosystems" (Serafini 2021, p. 222). Such ethics could serve as a

> "compass for how to tackle multiple crises we face, at both local and transnational levels" (Serafini, 2021, p. 222) … "Climate change and COVID-19 have reminded us of the interdependence and fragility of life, and how this fragility is exacerbated by intersecting forms of oppression. A joint movement based on a decolonial, ecofeminist ethic of care can allow us to build other ways of being, a task that involves the paramount work of fighting structural forms of oppression at the core. Such an approach would allow us to go beyond universalist and apolitical forms of climate action that emerged in recent years, and towards a global movement that acknowledges the histories, perspectives and demands of different communities, and that is the sum of multiple, situated struggles." (Serafini, 2021, p. 224)

2.3.2 Non-anthropocentric Climate Ethics

For a long time, the topic of climate change was communicated in media through pictures of emaciated polar bears stranded on quickly disappearing ice floes, who then "become emblematic of both the effects of global warming and of the fact that charismatic mega-fauna such as bears, walruses, and seals bear no responsibility for the environmental and atmospheric effects that threaten their survival" (Stenport and Vachula, 2017, p. 283). Since then, there has been a shift towards emphasising the human impacts of climate change, primarily in the context of countries of Global South, which face many intersecting injustices. However, now we can observe another shift in communicating climate change in both NGOs and media communication outlets, simultaneously with the increasing urgency of climate crisis. That is the strategy to stress how climate change already affects humans and the environment of the Global North -examples of such communication localising climate change impacts in Czech Republic are projects such as Klima v Česku by Člověk v tísni, (2022), Svědectví by Klimatická žaloba (2022), or Fotím změnu by Greenpeace (2021).

The most recent research and IPCC report had shown that the long-term impact of anthropogenic climate crisis on the nonhuman life will be massive, as I have outlined in the first chapter. But does it mean that we have moral responsibility to nonhuman life? And if so, to what exactly? Is this public sentimentality towards poor polar bears somehow grounded in ethical theories? In this chapter, I will present non-anthropocentric ethical theories which "seek to expand moral consideration by affirming in addition the moral status of some nonhumans" (Nolt, 2011, p. 704), which deal with climate change.

2.3.2.1 Development of Non-anthropocentric Climate Ethics

The first elaborations on non-anthropocentric climate ethics were pioneered by Clare Palmer and John Nolt in 2011, half a decade after philosophical attention on climate change has developed around 2004. As Nolt (2011) points out, simultaneously to the development of intergenerational anthropocentric ethics have emerged also environmental and animal ethics. However, these non-anthropocentric short-term ethics have "not systematically addressed problems of great temporal expense – in particular, the problem of climate change" (Nolt, 2011, p. 701). In the same vein, the long-term climate ethics have been primarily focused on human (present and future) interests, thus established ethical theories has been so far anthropocentric and "offer no guidance on such vast temporal scales" which would apply to ecosystems impacted by climate change. Consequently, McShane (2016) stresses that international climate policy has also anthropocentric focus, which is only emphasised by UNFCCC main goal to "protect the climate system for the benefit of present and future generations of humankind" (United Nations, 1992, Article 3, Principle 1).

Although the body of climate ethics literature have largely omitted the moral significance of non-human members of biotic community (Nolt, 2011), they have not been completely absent from the debate. The nonhuman world has mostly served as an area of ethics to be shortly mentioned in footnotes or very sporadically in chapters within the handbooks and essential readings on climate ethics (McShane, 2016, p. 95), as it has been maintained to be too complicated and unclear area of ethics. For example, climate ethicists Gardiner and Hartzell-Nichols (2012) states that:

> "… climate change threatens nonhuman animals and nature in potentially devastating ways. For example, we may have an immediate obligation to protect coral reefs to preserve biodiversity, fragile and unique ecosystems and the sentient beings living in such reefs. However, over the long term, climate change will also bring new species into existence and change ecosystems around the world. It is unclear how we should understand our responsibilities in light of such changes (e.g., Palmer 2011)." (Gardiner and Hartzell-Nichols, 2012)

In their text, Gardiner and Hartzell-Nichols (2012) draw from essay of Palmer (2011), where she pioneeres the discussion over ethical implications of climate change for four possible ob-

jects of direct moral concern: species, ecosystems, nonconscious living organisms, and sentient animals "directly, independently of the possible harms that such impacts might cause humans" (Palmer, 2011, p. 272). In her essay, Palmer (2011) considers five main factors – harm and change; climate change as a productive or destructive force; the question of numbers; non-identity problem; and uncertainty questions. Afterwards, she concludes that ethical implications related to nonhuman world are extremely unclear, for the reasons of lack of clarity; and the fact that climate change besides the negative effects will also lead to new forms of life flourishing that would not have occurred without such disturbance. In the same vein, Nolt (2011) concludes:

> "although the advance of science has clearly pushed back old limitations on long-term ethical responsibility for the effects of anthropogenic climate change on nonhuman life, whether that responsibility has expanded to fill the gap remains controversial. If it has, some broad policy implications are already obvious; we ought, for example, to emphasize climate stabilization in order to protect nonhuman life." (Nolt, 2011, p. 710)

Nevertheless, since then Clare Palmer continued her work on non-anthropocentric climate ethics, primarily in the field of animal ethics. In 2016, she published an essay where she examines the impact of climate change on the wildness status of wild animals and do first attempts to work through basic ideas on the ethical concerns of it. Palmer (2016) argues, that wildness of wild animals will be reduced as a result of climate change – in (1) constitutive sense – in sense of animals "(a) not being selectively bred, (b) not being adapted to live alongside humans, or (c) not being adapted for human use or purpose" (Palmer, 2016, p. 139); and (2) wildness in the sense of self-willing - "be free from human or "civilizational" constraints in expressing or fulfilling essential capacities, behaviours" (Palmer, 2016, p.140). Both of these notions of wildness, according to Palmer, people generally care about and value. She then considers the ethical responses resulting from such loss of value, which are shaped according to chosen approach – (1) consequentialist, meaning that „one that understands wildness value as something we should try to promote or to maximize" (Palmer, 2016, p. 137), or (2) deontological, meaning that "aims to respect and protect what wildness there is, and to prevent its reduction or loss" (ibid). She concludes that

> „consequentialists about wildness value have a range of positive policy options, because they can pursue the creation of new, future animal wildness. Deontologists about wildness value

> have fewer options, because their focus is on not compromising existing animal wildness, even when doing so would create more wildness in the future." (Palmer, 2016, p. 131).

Drawing from her 2009 essay on ethical implications of harms being inflicted on wild animals such as polar bears and her essay on loss of wildness value (2016), in 2021, Palmer discusses the moral responsibility to provide supplemental feeding to wild animals threatened by starvation to death as a result of anthropogenic climate change. Acknowledging this issue "with respect to justice, harms and suffering to individual animals … wildness values, bear agency" (Palmer, 2021, p. 390), she argues that there are good reasons for both – feeding and not feeding, while some arguments even propose it is ethically more preferable to rather resort to euthanasia. Finally, Palmer suggests a "tentative proposal: a trial of feeding bears without injustice to people" (Palmer, 2021, p. 394) and concludes, that there are ethical reasons for intervention meaning that we should do a test trial on one chosen bear population which "could assist in finding out more about the implications of feeding bears, and help in making better informed choices between feeding and shooting them, as sea ice shrinkage continues across the Arctic" (Palmer, 2021, p. 395). Although, this intervention of polar bear conservation should be done only with engaging with local native peoples, in order to ensure

> "justice with respect to native communities in the Arctic that are located in areas potentially affected. These communities have deep cultural and subsistence relations with polar bears, and also carry the burden of danger brought by polar bears coming into their communities. To avoid procedural injustice, any decisions about feeding bears should involve meaningful consultation with local Arctic native peoples" (ibid).

Recently in 2020, a book by Henning and Walsh (eds.) *Climate Change Ethics and the Non-Human World* was published, making a comeback for non-anthropocentric climate ethics. By bringing sentiocentric, biocentric, ecocentric, and posthuman perspective, diverse in their disciplinary, methodological, and theoretical groundings on climate change, they aimed to fill the gap of moral frameworks recognizing and respecting the dignity and agency of both human and non-human organisms. The diversity is also noticed in the inclusion of women's voices who make almost half of this collection, as opposed to conventional normative anthropocentric climate ethics collections. The topics covered in this collection range from criticism of Anthropocene and its anthropocentrism (by Katz, which I have covered in chapter on *Anthropocene and its Implications for Climate Ethics*); measuring of non-human goodness by

Nolt; suffering of farm animals linked to climate policies neglecting non-human lives from the perspective of communication studies by Fernandéz; proposals of changes to religious studies including epistemological decolonization in order to achieve planetary understanding of our world by Bauman; analyses of climate policies by Baard and Green; to theorization on the meaning of being a human who's essential characteristics are being impacted by climate change, drawing from scholarship on gut microbiota and posthumanism (this list is not exhaustive).

For the scope of this thesis, in following chapters I have chosen to focus on two chosen topics presented in the collection *Climate Change Ethics and the Non-Human World* – that is (1) the latest proposal to measure non-human welfare of John Nolt, who was among the first to discuss the need for non-anthropocentric climate ethics, as I have mentioned above; and (2) non-anthropocentric analysis of climate policies by Patrik Baard (2020) and Karen Green (2020), and biocentric approaches towards climate policy by Rebekah Humphreys (2020) and Robin Attfield (2020).

2.3.2.2 Non-human Goodness

In his essay, and ethical biocentrist John Nolt (2020) proposes to conceive the harms inflicted on non-human world "as losses of welfare-losses, in other words, of non-anthropocentric (and non-anthropogenic) goodness". This means to redirect our focus from biodiversity loss and species extinction (Nolt, 2020, p. 10). He assumes that all living creatures "have some degree of objective welfare and that having positive welfare is good for the living being that has it" (Nolt, 2020, p. 13). Nolt suggests that through measuring of the biotic (physical health) and hedonic (the welfare of feeling pleasure from eating, which is positive, or feeling pain from thirst, which is negative, for example) welfare; we can achieve better understanding of the health of species and non-human individuals without the lens of anthropocentrism. Both notions of welfare are objective conditions that can be empirically investigated.

As practical example of biotic welfare's measurement, Nolt proposes to use a similar generis measure of human health over time used in public health - QALY (quality-adjusted life year). To conclude, Nolt stress the need to divert our attention from abstract (indeed horrific) statistics, to concrete losses of individual lives and individual welfare, in order to comprehend its significance. Although the species' well-being or suffering can be in some cases incomparable or incommensurable, aggregate accounts of non-human welfare can be still measured and compared, in order to have both ethical and scientific use and boost our conservation efforts (Nolt, 2020, pp. 11-20).

2.3.2.3 Non-anthropocentric Climate Ethics and Climate Policy

Among the first non-anthropocentric analyses of climate policies was the work of McShane (2016), who has published a critique of mainstream climate ethics which stay silent and do not challenge the anthropocentric focus of climate policy. McShane, who believes in the need to consider nonhuman interests in climate ethics and policy, analyses possible justifications for anthropocentric climate policy and why these justifications fail, on the "least controversial form of non-anthropocentrism, namely that there exist at least some nonhuman animals that have what it takes to be bearers of directly morally important interests" (McShane, 2016, p. 191).

The possible justifications which she manages to disprove, were (1) that climate policymakers remain neutral between anthropocentrism and non-anthropocentrism, (2) concerns about biodiversity incorporate nonhuman interests, (3) helping humans will help animals, (4) there is no more capacity to include consideration of nonhuman interests, and (5) nonhuman animals are not represented by the UN and are not parties to the UNFCCC. As such, her argument is based on welfare of animals and acknowledging they do not have only existence value, suggesting that considering existing policies on biodiversity do not ensure considering animal welfare. She concludes that current methodology and policy assessment are not well suited to measure nonhuman's welfare, thus alternative methodologies should be considered (McShane, 2016, p. 201-202)

New discussions of climate policies from non-anthropocentric stances brought Karen Green (2020) and Patrik Baard (2020). Baard (2020) analyses the conflicting moral advice resulting from various IPCC scenarios. He focuses on four main areas of recommendations where conflict between climate and environmental ethics arises – (1) reduction of emissions supplemented by transformation of ecosystems and habitats to use for negative emissions technologies (consistent with climate ethics, not with environmental), (2) limitation of human population growth (consistent with environmental ethics, not with anthropocentric climate ethics), (3) enhancement of technological efficiency and development (inconsistent with both ethics), and (4) limitation of consumption of energy (consistent with both ethics). Baard suggests that anthropocentric climate ethics should include environmental ethical awareness,

and that virtue ethics (humans embracing virtues such as simplicity, humility and charity), should become a foundation for normative framework used to making of and implementing policies (Baard, 2020, pp. 106-120).

In this latest volume on non-anthropocentric ethics, at least four authors agree that ecocentrism and biocentrism are ethics best equipped to reflect on moral responsibilities resulting from climate change and thus they would result into more effective climate policy with a larger impact (Humphreys, 202; Attfield, 2020; Campagna and Guevara, 2020).

In her essay, Green (2020) presents an ecocentric practical proposal to regulate price on GHG emissions while assuming that the possibility of creating binding international framework – an agreement on global cap and trade system. Ecocentrism can be defined as a "non-anthropocentric ethic that extends ethical consideration to all components of the Earth's biotic and abiotic community" (Nichols, 2020, p. 136). Green (2020) analyses the constraints and failures of previous tries of global carbon emission regulation resulting from the Kyoto Protocol from 1997 and the Paris Agreement from 2015; and the regime of regulation of emissions based on equal per-capita allocation which is understood to be an appropriate concept for fair distribution.

In her approach, she draws from Aldo Leopold (1949) and his proposal of land ethic, of which main idea can be summarised as "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" (Leopold, 1949, pp. 224–25). Green (2020) argues that so far, climate ethics have failed to address the core issue, which is the over-exploitation of the environment, hence philosophers "have failed to sufficiently acknowledge that peoples have duties to care for the land that they occupy" (Green, 2020, p. 127). Therefore, instead of per capita allocation, Green proposes to apply ecocentric principles of land ethics to emissions allocation and responsibility distribution for emissions – her idea is that "the fair allocation of rights to emit should be proportional Xto the country's land size and its inherent capacity to absorb greenhouse gasses" (Green, 2020, p. 128).

Next defence of biocentric climate ethics presents in her essay Rebekah Humphreys (2020), where she analyses whether sentientism, an approach which argues that consciousness is what makes an entity a welfare subject, is an ethic on which we could base climate change ethics. She concludes that although sentientism is more inclusive and creditable than anthropocentrism, it is still not morally justifiable to protect natural world based only on the interests of sentient beings, for the reasons that it excludes of protection the nonsentient life, as well as it "provides no sufficient or direct grounds for protecting the undiscovered, nonconscious terrestrial and aquatic plant and animal life the existence of which is a known unknown" (Humphreys, 2020, p. 59). She argues, that in fact sentientism also fails protecting the sentient beings as long as their wellbeing is dependent on flourishing of non-sentient world (to which sentientism does not assume intrinsic value).

Thus, Humphreys (2020), as a proponent of egalitarian biocentrism (which argues that regardless it is sentient on non-sentient creature, their similar interests should be equally considered), suggests that climate ethics with biocentrist stance would result into effective and strict mitigation policies of climate change because "it would consider the interests of all beings to have direct moral relevance" (Humphreys, 2020, p. 60). If this were the approach of climate ethics and climate mitigation policies, it would be inevitable to scale up our ambitions of emission reduction, as the life of both human and non-human world would be at stake (which we were to grant moral significance to) (ibid). In the same vein, Robin Attfield (2020) finds incorporation of biocentrism into climate ethics to imply more serious climate action; and to be more practicable than ecocentrism, given the temporal and spatial scope of climate change. He argues that biocentric values should be fostered in public life through environmental education, in order to create motivation of humans to not only care for the interests of themselves and other sentient livings, but also of oceans, woodlands, wetlands, etc. which are highly threatened by climate change (Attfield, 2020, pp. 71-72).

Conclusion

In this thesis, I presented the rich subject of climate change as an ethical, moral, and philosophical issue, however it is not an exhaustive study of an ethical perspective of climate change nor the multidimensional concept of climate justice. In first part of this thesis, drawing from the IPCC AR6 report, I have discussed the latest agreed science on the state of climate change, vulnerability of people and nature, adaptation, and mitigation. Climate change poses several ethical issues and questions, to which I have tried to provide information by presenting the heterogenous concept of climate justice and how is it articulated in spaces of social movements, in the world of negotiations, policy, and governance. I then gave an overview of mainstream climate ethics and its main tenets and areas of discussion, where stands out the immense incline towards anthropocentrism, as well as little focus on the issue of gender, although climate change is thought to be a feminist issue. Therefore, the last chapter is dedicated to non-anthropocentric climate ethics which expands moral consideration to the nonhuman life, and focus is also put on proposals for intersectional, ecofeminist decolonial climate ethics.

According to the AR6, this is a critical decade for international climate policy. The necessary immediate cuts in GHG emissions and swift just transition are more than crucial for reaching the vitally needed goals of the Paris Agreement, however the progress is slow and insufficient, and we are faced with many obstacles. Even though the first elaboration on the moral consequences of global warming has origins in 1990s and climate change has become a popular subject of concern for philosophers and ethicists since 2004, we cannot say that it has dramatically change the course where humankind is heading (and the nonhuman life that it takes along with it).

Drawing from the criticism of the Anthropocene concept, I have just caught myself almost writing a rhetorical question partaking in the dangerous Anthropocene narrative, that is, whether is it the role of climate ethicists and philosophers to change our collective mindset. However, I would be then guilty of the exact same homogenization by presuming the universalising “we”, that the Anthropos ought to change as a whole, which does not reflect the prevailing coloniality, systemic asymmetries and racial violence, avoids assigning responsibility,

and which silences the ones who do not need to change their mindset. Such communities, living with closeness and consciousness to nature and to one another, with different value systems and non-anthropocentric belief and knowledge systems, serve as much needed reminder that other ways of living are possible. I am writing this without any intention of romanticization or otherization of Indigenous culture, while acknowledging their persisting resistance, and the many intersecting discrimination and even life-threatening injustices Indigenous people and their spaces face.

Not surprisingly, some people tend to be pessimistic regarding our future, given the rising GHG emissions (see Graph 1), closeness to irreversible tipping points and the enduring or witnessing another life-threatening climate-change related events in the past years (e.g., the most recent record-breaking heatwaves in India and Pakistan) which occur more often and with more severity, exactly as the AR6 predicts. Fortunately, incredible amount of people put endless energy into advocating for climate action and climate justice or opt for imagining and making possible alternative futures. A good example is the growing Degrowth movement, ecofeminist decolonial visions, or the proposed concept of Symbiocene, the "period in the Earth's history where humans symbiotically reintegrate themselves, psychologically and technologically, into nature and natural systems" (Albrecht, 2016).

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