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The implementation of a gender and human rights-based approach into the governance of climate change

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Abstract

Climate change is a global problem that poses a growing threat to human rights. While international organisations such as the United Nations advocate for frameworks that prioritise the respect and protection of human rights, the actual implementation of these frameworks remains uncertain. This research endeavours to bridge this gap by integrating a human rights approach alongside a gender approach. By doing so, it aims to emphasise the unequal distribution of climate change impacts and highlight the unique role that women can play as agents of change. Through a comprehensive analysis of international frameworks and legal cases, particularly examining the regional context of the European Court of Human Rights, the thesis ultimately concludes that adopting a human rights and gender-based approach is crucial for ensuring an effective response to the multifaceted challenges presented by climate change.

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List of abbreviations

BC – Barefoot College

CEDAW – Convention on the Elimination of All Forms of Discrimination against Women

CESCR – International Covenant on Economic, Social and Cultural Rights

COP – Conference of Parties

CRC – Convention on the Rights of the Child

CRPD – Convention on the Rights of Persons with Disabilities

ECHR – European Convention on Human Rights

ECOSOC – Economic and Social Council

ECtHR – European Court of Human Rights

EU – European Union

GAP – Gender Action Plan

GAT – Gender Action Team

GHG – Greenhouse Gases

HRC – Human Rights Council

ICERD – International Convention on the Elimination of All Forms of Racial Discrimination

ICJ – International Court of Justice

IPCC – Intergovernmental Panel on Climate Change

LWPG – Lima Work Programme on Gender

NAMA – National Appropriate Mitigation Action

NAPA – National Adaptation Programmes on Action

OHCHR – Office of the High Commissioner for Human Rights

PACC – Pacific Adaptation to Climate Change

PIL – Public Interest Litigation

REDD+ - Reducing Emissions from Deforestation and Forest Degradation

SBI – Subsidiary Body for Implementation

SBSTA – Subsidiary Body for Scientific and Technological Advice

ST – Solar Teacher

UN – United Nations

UNCED – United Nations Conference on Environment and Development

UNDP – United Nations Development Programme

UNEP – United Nations Environment Programme

UNFCCC – United Nations Framework Convention on Climate Change

UNIDO – United Nations Industrial Development Organisation

WMO – World Meteorological Organisation

Introduction

At the latest Conference of Parties (COP), the opening speech of the Secretary-General António Guterres highlighted: ‘Our planet is fast approaching tipping points that will make climate chaos irreversible. We are on a highway to climate hell with our foot still on the accelerator.’¹ The alarming phenomenon of climate change can be considered as a global threat whose effects are inevitably becoming more and more tangible over the years. As a worldwide crisis, it does nothing but exacerbate the present structural inequalities that characterize our contemporary societies.

In this thesis, the aim is to integrate a human rights and gender-based approach to climate change. These approaches are necessary to counter the phenomenon, as its increasingly threatening effects impact the enjoyment of human rights. These effects, however, are not perceived equally among individuals and communities around the planet. When human rights and gender perspectives are applied in the context of climate change, the focus is based on values such as justice, equity, and fairness and particular attention is given to not exacerbating the existing vulnerabilities.² In this sense, the human rights approach acknowledges the unequal impacts and vulnerabilities to climate change, including those rooted in gender.³ More specifically, the thesis delves into the area of climate change governance, which mainly concerns strategies on mitigation and adaptation. Therefore, it will be discussed how human rights and gender are implemented in the main frameworks that promote policies and resolutions to mitigate and adapt to climate change.

Although the United Nations and national governments have recognised the impact climate change has on human rights, there remains a certain mistrust and lack of consensus on the part of governments and private entities to address the problem. Even if the connection between human rights and the environment has been the subject of extensive debate in recent decades and has been supported by organisations such as UNEP, OHCHR, and the Human Rights Council-appointed Special Rapporteur,⁴ little has focused on a human rights perspective that also integrates gender in climate change governance.

¹ United Nations, *Secretary-General's remarks to High-Level opening of COP27*, November 7, 2022, <https://www.un.org/sg/en/content/sg/speeches/2022-11-07/secretary-generals-remarks-high-level-opening-of-cop27> (accessed July 1, 2023).

² Sumudu A. Atapattu, “Mitigation and Adaptation through a Human Rights Lens,” in *Human Rights Approaches to Climate Change Challenges and Opportunities* (London: Routledge, Taylor & Francis Group, 2018). 127.

³ Karen Morrow, “Tackling Climate Change and Gender Justice – Integral; Not Optional,” *Oñati Socio-Legal Series* 11, no. 1 (April 2020): pp. 207-230, <https://doi.org/10.35295/osls.iisl/0000-0000-0000-1166>. 213.

⁴ Micheal Burger and Jessica Wentz, “Climate Change and Human Rights,” UN Environment Document Repository Home, December 2015, <https://wedocs.unep.org/handle/20.500.11822/9530>. (accessed April 29, 2023).

The first chapter provides an overview of the development of the main frameworks at the international level while focusing on mitigation and adaptation. Lastly, it introduces the Paris Agreement which represents a radical change in the approach to climate change.

The following chapter presents the most substantial analysis as it develops the implementation of a human rights-based approach to climate change governance. The main topics discussed concern obligations arising from international human rights law, the general duty of international cooperation in climate change, and human rights-based litigation in the regional system of the ECHR and domestic courts. The reference material includes reports from the UN bodies and institutions that have analysed the correlation between human rights and climate change, especially those from the UN Secretary-General, the OHCHR, and the Human Rights Council. Climate change cases pending before the European Court of Human Rights and the rulings of national courts on issues related to climate change are used to describe human rights-based litigation.

The third and last chapter aims to integrate a gender perspective. As a first step, it takes up the jurisprudence of the ECtHR and analyses the case of *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* which addresses women's particular vulnerability to climate change. The discourse on vulnerability proceeds with the explanation of a gender and rights-based approach and the implementation of gender mainstreaming in the climate frameworks that deal with mitigation and adaptation. The relevant information is obtained from UN Committees such as CEDAW and the UNFCCC, under which decisions and action plans on gender have been developed. The thesis examines two key sectors, deforestation, and renewable energy, in the context of mitigation efforts. Within the deforestation domain, the thesis delves into gender mainstreaming under the REDD+ programme while in the field of renewable energy, it includes two projects that promote women's empowerment: Solar Mamas and Solar Sisters. Such initiatives have been chosen as exemplary endeavours that advance sustainable energy in India and Africa, contributing to the broader objective of mitigating greenhouse gas emissions.

Methodology and limitations

As a starting point for my analysis, the thesis will first deal with the current developments in the field that regard human rights and climate change. The profound impact that climate change has on human rights emphasised the urgency for a comprehensive approach that does not treat it as a purely technical problem. To effectively mitigate and adapt to climate change, it is crucial to adopt a holistic strategy. In this sense, the thesis refers to the issue of climate change in its entirety, giving special prominence to human rights dimensions. The advancement of such discourse comprises two frameworks that slightly differ in substance: human rights law and a human rights-based approach. The former implies a focus on obligations, claiming that states are obliged to protect the rights of individuals within their jurisdiction and can be held accountable if they fail to do so.⁵ The thesis will deepen this framework when discussing human rights obligations, international cooperation, and human rights-based litigation in the context of climate change. Moreover, examples from the European Court of Human Rights (ECtHR) and litigation in domestic courts will be used to demonstrate the potential liability of states when human rights are undermined due to their failure to limit the harmful effects of climate change. The latter approach, however, does not only determine the existence of rights and obligations but rather explores how these rights can be effectively addressed and integrated into actions and policies. It is a more forward-looking perspective which ensures that human rights considerations are actively incorporated into decision-making processes and strategies. In the climate change context, ‘a human rights-based approach provides a conceptual framework for climate change policies; a framework which is *normatively* based on international human rights standards and which is *practically* directed to promoting and protecting human rights.’⁶ This approach will also be used in the thesis to understand how gender is integrated into the main policy frameworks on mitigation and adaptation at the international level. It aims to contribute qualitatively to the evolution of such policies and promotes the development of strong, effective, and sustainable policy responses at both national and international levels.⁷

The first introduction of a human-rights based approach to climate change was made in 2007 by the former UN Commissioner for Human Rights, who appointed that ‘any strategy to deal with

⁵ Mariya Gromilova, “Revisiting Planned Relocation as a Climate Change Adaptation Strategy: the Added Value of a Human Rights-Based Approach,” *Utrecht Law Review* 10, no. 1 (2014): 76, <https://doi.org/10.18352/ulr.258>. 88

⁶ John Von Doussa, Allison Corkery, and Renée Chartres, “Human Rights & Climate Change,” The Australian Human Rights Commission, 2008, <https://humanrights.gov.au/our-work/commission-general/publications/human-rights-climate-change-2008>. (accessed June 24, 2023).

⁷ Marc Limon, “Human Rights and Climate Change: Constructing a Case for Political Action,” *Harvard Environmental Law Review* 33, no. 2 (2009): 439–77. 458.

climate change, whether in terms of adaptation or mitigation, must incorporate the consequences for humans, as individuals and communities, and the human rights framework in the most effective way to do so.⁸ Few years later, it was developed an extensive report on the relationship between climate change and human rights where the Office of the UN High Commissioner for Human Rights (OHCHR) stressed the significance of a human rights-based approach into any policy related to climate change adaptation and mitigation. Hence, the current report has been a key source for the explanation of some important concepts included in the thesis, particularly the effects of climate change on specific rights and groups.

The research method of the thesis is based on a qualitative analysis of the existing reports and materials that are included in the present literature and official databases of international organisations. The prevailing sources are collected from international legal documents of the United Nations and its main institutions, such as the Human Rights Council, the OHCHR, and human rights treaty bodies that developed reports on human rights, gender, and climate change. Additional sources relevant to the research are the jurisprudence of the ECtHR and Dutch courts case law, as the Netherlands presented useful and successful cases on climate change litigation.

By recognising that the issue of climate change is remarkably vast and complex, the holistic approach considers all the interconnected aspects and the broader context in which it exists. In addition to the main human rights perspective, the thesis embeds a social dimension when it addresses gender vulnerability in relation to climate change. Scholars in the field of social science and development have played a leading role in advancing the understanding of the structural inequalities that characterise problems such as climate change. The incorporation of this approach can identify the root causes of gender inequality since its practice and sustainability have not yet been given enough consideration and have been under-discussed in the main areas that concern the governance of climate change.⁹

While the thesis aims to provide valuable insights into the field of climate governance, it is crucial to acknowledge certain limitations. Firstly, global governance of environmental matters has not a standardised model or structure, rather it is highly dynamic and involves interactive decision-making. The major limitation in the research regards the exclusion of environmental policies and strategies developed at supranational level by the European Union (EU). The EU has also

⁸ Office of the High Commissioner for Human Rights, “Climate Change and Human Rights, Address by Ms. Kyung-wha Kang Deputy High Commissioner for Human Rights, Office of the United Nations High Commissioner for Human Rights,” 14 December 2007, <https://www.ohchr.org/en/statements/2009/10/climate-change-and-human-rights-address-ms-kyung-wha-kang-deputy-high>. (accessed June 24, 2023).

⁹ Morrow, “Tackling Climate Change and Gender Justice – Integral; Not Optional,” 212.

recognised that ‘climate change and environmental degradation are an existential threat’¹⁰ and promoted environmental action plans, such as the European Green Deal. However, the research does not consider the EU’s integration of a European Climate Law or specific strategies for addressing climate change.

The United Nations and other intergovernmental organisations discussed in the following chapters are just a portion of the broader international governance process. The choice is justified by the significant impact of the UN in exerting influence over the global policymaking agenda and playing a key role in initiating and facilitating crucial advancements in legislation.¹¹ Lastly, it is crucial to keep these limitations in mind when interpreting the findings and recommendations of this research, recognising that further studies and investigations may be necessary to comprehensively address the complexities of climate change.

¹⁰ EUR-Lex, *Environment and climate change*, https://eurlex.europa.eu/summary/chapter/environment.html?locale=en&root_default=SUM_1_CODED%3D20. (accessed June 25,2023).

¹¹ Patricia Birnie, Alan E. Boyle, and Catherine Redgwell, *International Law and the Environment*, 3rd ed. (Oxford, United Kingdom: Oxford University Press, 2009), 44.

1. THE REGIME OF CLIMATE CHANGE GOVERNANCE

The present chapter aims to provide a comprehensive analysis of mitigation and adaptation in relation to climate governance by highlighting the main features. First of all, it illustrates the principal frameworks and agreements that have been developed in the climate change regime at international level. It then proceeds to describe the areas of mitigation and adaptation, and the principal frameworks developed in both contexts. The analysis will finally lead to the Paris Agreement, which begins the discourse on human rights and climate change, a key correlation developed throughout the entire research.

1.1. The main frameworks at national and international level

In the first instance, it is necessary to define the term ‘governance’ in the climate change context. When applied to the UN and its agencies the term governance ‘implies rather less than global government, a task for which no international organisation is equipped, but more than the power to determine policy or initiate the process of international lawmaking.’¹² At its minimum, it represents a concept where a group of nations share the responsibility of tackling shared challenges through inclusive political processes. These processes, to a certain extent, express a collective interest that differs from the individual interests of the states involved.¹³ In context such as climate change, the UN and its institutions have been decisive in exercising powers of international governance.

The first major international step in the areas of environment and development was the Rio Conference held in 1992, an event initiated by the UN that was able to bring all member states together to cooperate on development and sustainability issues. The negotiations were carried out by a Preparatory Commission, in which developing countries played a particular role in ensuring that a convention on climate change and biological diversity was being drafted. Additionally, they tried to assert their position in the negotiations but failed to reach a common agreement during climate change negotiations.

The distinctive aspect of the Rio Conference, also called UN Conference on Environment and Development (UNCED), is that participation did not only include governments but also some important companies and private foundations, as well as a lot of NGOs, which assisted the works of the preparatory committees. Despite the contrasting viewpoints among the various participants

¹² Birnie, Boyle and Redgwell, *International Law and the Environment*, 43-44.

¹³ *Ibid*, 44.

on development and sustainability issues and the meaning of sustainable development, the meetings successfully concluded with the adoption of new important instruments. Three non-legally binding documents such as Agenda 21, the Rio Declaration on Environment and Development, the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests, which mostly contain principles and guidelines for the interpretation of other related treaties. Furthermore, two significant legally binding agreements were developed and opened for signature, namely the Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity. The aim of the latter treaties was to address two major contemporary problems, particularly the impacts resulting from energy consumption and the large exhaustion of natural resources.¹⁴ For the purposes of this research, the UNFCCC will be, among the two frameworks, the one comprehensively analysed.

Instead of setting real and precise targets, the UNFCCC might be considered more as a ‘framework convention establishing a process for reaching further agreement on policies and specific measures to deal with climate change.’¹⁵ In fact, the main objective of the Convention is focused on ‘stabilising’ GHGs emissions rather than reset their levels, specifically in a way that ‘would prevent dangerous anthropogenic interference with the climate system.’¹⁶ More scrupulous measures and commitments will be established under the 1997 Kyoto Protocol, a treaty that extended the Convention to be discussed later. Initially, however, the negotiation process of the UNFCCC raised several concerns: in the first place, the presence of developed and developing countries implied different needs and responsibilities, as well as what kind of measures had to be taken to counter the complex phenomenon of climate change. Moreover, the process got even more challenging as opinions differed within each group of developed and developing countries. Although all these obstacles, the UNFCCC resulted in a well-structured framework. Firstly because it set out a series of helpful principles (not necessarily binding) for the implementation of the Convention and second, it introduced the key concept of ‘common but differentiated responsibility’. This concept justifies the different obligations, particularly in terms of GHGs reduction, between developed and developing member states. It is also used as a basis for the targets defined in the subsequent Kyoto Protocol.

¹⁴ Birnie, Boyle and Redgwell, *International Law and the Environment*, 52.

¹⁵ *Ibid*, 357.

¹⁶ United Nations, *United Nations Framework Convention on Climate Change*, 1992, FCCC/INFORMAL/84, available at: <https://unfccc.int/resource/docs/convkp/conveng.pdf>.

The new Protocol elaborated in 1997 was characterised by an improvement of policies and measures for developed parties and, for the first time, their quantity of GHGs emissions was subject to precise limitations. An additional enhancement concerned the implementation of three ‘flexibility mechanisms’, namely the Clean Development Mechanism (CDM), the Joint Implementation and Emissions Trading. They all represent different methods in which the emissions of the six greenhouse gases listed in Annex A of the Protocol can be reduced. Considering this progress, the Kyoto Protocol can be regarded as ‘a considerable advance on the Framework Convention, which it strengthens by providing means for remedial and precautionary action to address climate change. It shares its foundational principles and objectives with the Convention, as well as its classification of parties.’¹⁷

Ultimately, to guarantee supervision and compliance of the Convention and the Protocol, the Conference of Parties (COP) is the body in charge of controlling the effectiveness and the implementation of both instruments. They meet regularly and they are assisted by additional experts, for example by the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). Altogether, parties and subsidiary bodies are responsible for the administration of the whole climate change regime. Among the innovative features, there is a detailed review of national reports before their submission to COP and subsidiary bodies, which is carried out by a team of independent experts chosen by governments and international organisations. Their core function is to report on the effectiveness of states in implementing the Convention, highlighting any potential shortcomings. Should these reviews demonstrate the failure of a state party in fulfilling its commitments, the UNFCCC provides for a multilateral process, in which experts are allowed to promote a better understanding of the Convention through a series of recommendations and clarifications of the issues involved. This consultative process does not entail the possibility of imposing sanctions, in fact, it is distinguished for being ‘non-judicial, non-confrontational, and advisory rather than supervisory.’¹⁸

Even more decisive than the Kyoto Protocol, the Bali Action Plan adopted in 2007 gave more and more prominence to the increasingly imminent effects of the climate change phenomenon. The Plan relied heavily on the work of the experts of the Intergovernmental Panel on Climate Change

¹⁷ Birnie, Boyle and Redgwell, *International Law and the Environment*, 362.

¹⁸ *Ibid*, 369.

(IPCC) and concluded that global levels of GHGs emissions must be drastically reduced, reaching very low levels by the middle of the twenty-first century.¹⁹

The Bali Action Plan is equally based on the concept of common but differentiated responsibilities. For the first time, however, it starts to demand slightly more involvement from developing countries in mitigating the impacts of climate change. Moreover, the Plan made significant progress on a couple of aspects: topics as deforestation and forest degradation have been soundly included in the agenda, and secondly, a better understanding of how to manage and improve financial assets and transfers has been established thanks to the exceptional participation of finance ministers at the negotiations. On the other hand, the Bali conference maintained a consistent approach by not setting binding targets, which is why tangible advancements in this regard became crucial to counter climate change.²⁰

1.2. Mitigation

According to the experts of the Working Group III of the IPCC 6th Assessment, ‘climate change mitigation is achieved by limiting or preventing greenhouse gas emission and by enhancing activities these gases from the atmosphere.’²¹ The increasing emissions released into the atmosphere are causing severe consequences to the planet, thus making it harder and harder to mitigate the effects of climate change and almost impossible for future generations to enjoy unpolluted air and environment. Reducing the production of GHGs, however, is a very difficult task because almost every sector of society and economy is a potential originator of emissions.

Mitigation actions, as well as adaptation ones, can be implemented locally but also at national and international level. On a small scale, consumers-oriented measures such as the incentive to industries to adopt cleaner technology, or the spread of empirical data and information to citizens represent good examples of climate change mitigation. Internationally, the programmes on mitigation developed by the UNFCCC are called Nationally Appropriate Mitigation Actions (NAMAs) and refer to developing countries. NAMAs include any actions that reduces emissions and are designed on two levels: one is the national level, which regards the initiatives promoted by national governments that intend to mitigate GHGs in line with their capacity, and the second one is the individual level that comprises groups of actions or proposals aimed at helping the

¹⁹ Birnie, Boyle and Redgwell, *International Law and the Environment*, 375.

²⁰ Ibid.

²¹ IPCC, “*Working Group III Mitigation of Climate Change*,” 2021, <https://www.ipcc.ch/working-group/wg3/#:~:text=Climate%20change%20mitigation%20involves%20actions,these%20gases%20from%20the%20atmosphere>. (accessed April 4, 2023).

country to meet their mitigation objectives. The process wants to encourage developing countries to voluntarily reduce their emissions and provides not just financial support, but also technology and capacity-building assistance for the concrete implementation of NAMAs.²²

1.3. Adaptation

If mitigation was the main focus in the early approaches to countering climate change, the developments on adaptation have been increasing and gaining more and more attention, as it is now inevitable to not recognize the harmful consequences of climate change. The process of adaptation is defined as an ‘adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.’²³ The acceleration of adaptation strategies is partly due to the fact that mitigation measures have not been adequate enough to reduce GHGs, so it forced governments and companies to provide more effective solutions to adapt to climate change impacts.

In the UNFCCC framework, the first international commitment in the adaptation area concerns the Cancun Agreements, where the parties of the conference established an Adaptation Committee, whose task is ‘to promote the implementation of stronger action on adaptation by providing technical support and guidance to countries, strengthening knowledge-sharing and promoting synergy between a range of stakeholders.’²⁴ Later at the Bali conference, there was the launch of an Adaptation Fund, whose activities included ‘to develop policies and guidelines, recommending strategic priorities to the COP/MOP, developing criteria to ensure that governments seeking funding are administratively and financially capable, and approving funds for adaptation projects and programmes proposed by governments.’²⁵ An Adaptation Fund Board (AFB) was appointed for the supervision of the Adaptation Fund, whose meetings take place twice a year and consists of 16 members in total: two delegates for each five UN’s regional groups, two

²² UNFCCC, “*Nationally Appropriate Mitigation Actions (NAMAs)*”, <https://unfccc.int/topics/mitigation/workstreams/nationally-appropriate-mitigation-actions> (accessed July 8, 2023)

²³ IPCC, 2014: Annex II: Glossary [Mach, K.J., S. Planton and C. von Stechow (eds.)]. In: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, pp. 117-130

²⁴ UNFCCC, “*Key Steps of the United Nations Climate Change Conference*,” 2011, <https://unfccc.int/tools/cancun/adaptation/index.html>. (accessed April 27, 2023).

²⁵ Birnie, Boyle and Redgwell, *International Law and the Environment*, 376.

representatives from both groups of developed and developing countries, one representative from small island developing states and another one from the least developing countries.²⁶

For the least developed countries, the UNFCCC promoted in the area of adaptation the National Adaptation Programmes of Action (NAPAs). The significant feature in NAPAs' process is that the priority is given to local communities, who are the primary sources of information and the principal stakeholders that can identify the urgent and immediate needs in relation to adaptation of climate change. Being a programme based on the particular vulnerability that affects the least developed countries, it recognises their limited ability to adapt to the adverse effects of climate change and establishes a fund, the Least Developed Countries Fund, which they can access for the implementation of the NAPA.²⁷

The two spheres of mitigation and adaptation are not exclusive, on the contrary, they are complementary to each other and need to be pursued together. In both cases, the necessary measures must be taken considering the overall situation and the availability of resources of a specific country or region, because clearly the governance depends on many factors and influences different sectors of society, economy, and daily life.²⁸ Given the uncertainty of the consequences, some believe, however, that mitigation is more an important issue and that funds should be invested primarily in prevention measures rather than in adaptation strategies. Regardless of the position on this matter, mitigation and adaptation are both crucial for an effective climate change governance, especially because they will have an impact on vulnerable people and communities.

1.4. The Paris Agreement: a paradigm shift in climate change governance

Even if on the large scale the UNFCCC recognised certain standards of equity and the vulnerability of certain groups, human right-related issues have been set aside from the discussion by the majority of states parties to the Convention. There was a proposal, however, that came from the developing countries during the final drafting of the Convention, which regarded the inclusion in article 2 of the UNFCCC of 'the right to development as an inalienable human right' but due to the objection from the United States in particular, the idea was abandoned. Only after the Bali Action Plan in 2007, the Human Rights Council and many other UN institutions started to refer to human rights principles as main guide for the governance and policy actions of climate

²⁶ Birnie, Boyle and Redgwell, *International Law and the Environment*, 376.

²⁷ UNFCCC, "National Adaptation Programmes of Action", <https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/introduction> (accessed July 8, 2023)

²⁸ Atapattu, "Human Rights Approaches to Climate Change Challenges and Opportunities," 130.

change.²⁹ Among those, the United Nations collaborative initiative on Reducing emissions from Deforestation and forest Degradation (REDD+) in developing countries was one of the first mechanisms that ensured the protection of the rights of the indigenous people, women and youth communities who rely upon forests for their survival. Within the framework of the REDD+ Programme, one could positively argue that human rights concerns were very much addressed, in terms of access to land and forest resources, as well as procedural rights which guaranteed public participation and access to justice to those particularly affected by the negative impacts of forestry.³⁰

The growing international consensus of the relevance of human rights in the context of climate change finally led to the negotiations of the Paris Agreement, which could be defined as ‘the first global environment agreement to include an explicit reference to the importance of human rights.’³¹ One of the consequences of integrating the language of human rights in the negotiation between states, stakeholders and institutional actors is that it raised a human rights-based awareness in policies and norms of climate governance.³² It is in the preamble of the agreement that human rights are explicitly addressed:

‘Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity.’³³

Overall, the Paris agreement represents a significant progress in the climate change discussion as states parties declared for the first time to interpret the agreement’s provisions in accordance with relevant international human rights obligations.³⁴ Such provisions also mention the fulfilment of a sustainable development, the eradication of poverty, the safeguard of food security and a just

²⁹ Sébastien Duyck, “Delivering on the Paris Promises? Review of the Paris Agreement’s Implementing Guidelines from a Human Rights Perspective,” *Climate Law* 9, no. 3 (2019): 202–23, <https://doi.org/10.1163/18786561-00903004>. 204.

³⁰ Annalisa Savaresi, “REDD+ and Human Rights: Addressing Synergies between International Regimes,” *Ecology and Society* 18, no. 3 (September 2013), <https://doi.org/10.5751/es-05549-180305>.

³¹ Duyck, “Delivering on the Paris Promises? Review of the Paris Agreement’s Implementing Guidelines from a Human Rights Perspective,” 207.

³² *Ibid.*

³³ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

³⁴ Duyck, “Delivering on the Paris Promises? Review of the Paris Agreement’s Implementing Guidelines from a Human Rights Perspective,” 208.

transition of the workforce.³⁵ Additionally, as regards adaptation actions to climate change, the agreement recognises a gender-responsive, participatory and fully transparent approach while taking into account vulnerable groups and their knowledge.³⁶ The Paris agreement paved the way for the consideration of human rights in climate change governance in the following Conferences of Parties (COP), in particular COP23 recalled the agreement’s preamble and inaugurated the ‘Gender Action Plan’ and the ‘Local Communities and Indigenous Peoples Platform’. Since then, UN institutions, especially Special Rapporteurs and human rights treaty bodies, continued their task in interpreting the objectives of the agreement and states’ corresponding obligations from a human rights perspective.³⁷

³⁵ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

³⁶ Ibid. Article 7.5.

³⁷ Duyck, “Delivering on the Paris Promises? Review of the Paris Agreement’s Implementing Guidelines from a Human Rights Perspective,” 210.

2. IMPLEMENTATION OF A HUMAN RIGHTS APPROACH IN CLIMATE GOVERNANCE

As Mary Robinson once said, climate change is ‘potentially the greatest threat to human rights in the twenty-first century.’³⁸ The impacts of climate change are now becoming the most common challenges to the enjoyment of human rights, which affect not only civil and political rights such as the right to life and to property, but also economic, social and cultural rights, as well as third generation rights, for instance the right to a healthy environment. Despite the difficulties that regard the possibility of making states accountable for the effects of climate change, given their non-immediate occurrence and extraterritoriality, human rights-based approaches and international human rights law provide useful frameworks able to address the phenomenon. Moreover, tackling climate change from this perspective allows to link the problem to the concept of human dignity, instead of treating it solely as a scientific or technical issue.³⁹

In this chapter, it will be considered how human rights are implemented in the governance of climate change and what obligations have been identified internationally by the main UN bodies. Moreover, the issue of vulnerability in the context of climate change will be emphasised through both the argument of international cooperation and human rights-based litigation, the latter on a regional level using the framework of the European Convention of Human Rights (ECHR) and the relevant jurisprudence of the European Court of Human Rights.

2.1. Mitigation and adaptation from a human rights perspective

In 2009, a report published by the OHCHR analysed in depth the relationship between climate change and human rights and, more specifically, how the impacts of climate change affect the enjoyment of certain human rights. The analysis was based on findings from the IPCC, which identified six examples of rights potentially at risk: the right to life, the right to adequate food, the right to water, the right to health, the right to adequate housing and the right to self-determination.

The right to life is an inalienable human right protected under the International Covenant on Civil and Political Rights and the Convention on the Rights of the Child. In the climate change context, there can be many life-threatening phenomena, such as heatwaves, floods, storms, fires, and droughts according to the IPCC. Food crisis and malnutrition can also affect the right to life,

³⁸ Mary Robinson, "Social and Legal Aspects of Climate Change," *Journal of Human Rights and the Environment* 5, no. Special Issue (2014): 15-17. 15.

³⁹ Stephen Farrall, "Analysis of Climate Change from a Human Rights Perspective," essay, in *Criminological and Legal Consequences of Climate Change* (Oxford etc.: Hart, 2012). 114.

especially in the case of children it may impact their growth and development. Additionally, the enjoyment of the right to life can be threatened by the aggravation of weather-related disasters that are already affecting millions of people, particularly in developing countries. In general, when it comes to the protection of the right to life in the context of climate change, its interconnectedness with other rights must be recognised. For instance, it is difficult to dissociate it from rights such as the right to food, health or housing.⁴⁰

Another right identified by the IPCC regards the right to adequate food, which is explicitly protected in several UN conventions: the International Covenant on Economic, Social and Cultural Rights (CESCR), the Convention on the Rights of the Child (CRC), the Convention on the Rights of Persons with Disabilities (CRPD), as well as under the provisions of adequate standard of living contained in the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD).⁴¹ As reported by the experts, people in developing countries that particularly depend on resources for their food and livelihoods will be disproportionately affected by climate change. Moreover, the Special Rapporteur on the right to food highlighted the necessity to guarantee such right especially to vulnerable and disadvantaged groups, given the higher probability of their livelihood to be threatened by climate change.⁴²

The right to water is mentioned in the CESCR, CEDAW, CRPD and CRC. Factors caused by climate change, such as loss of glaciers, reduction of snow cover, drought and flooding can negatively impact water availability and access to safe drinking water. Not having access to safe and affordable water consequently leads to ‘a range of other causes of water stress, such as population growth, environmental degradation, poor water management, poverty and inequality.’⁴³

The right to health is included in article 12 of the CESCR, as well as in other core international human rights treaties, namely CEDAW, ICERD, CRC and CRPD. Climate change may aggravate people’s health conditions through the increase in malnutrition, diseases, and injury due to extreme weather events. In this case too, the Special Rapporteur on the right to health emphasised

⁴⁰ UN Human Rights Council, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, 15 January 2009, A/HRC/10/61, available at: <https://www.refworld.org/docid/498811532.html>. (accessed 18 June 2023).

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid.

how the failure to protect such right burdens those vulnerable individuals and communities with less adaptive capacity.⁴⁴

For the right to adequate housing, the CESCR adopted a broad interpretation and defined it as ‘the right to live somewhere in security, peace and dignity.’⁴⁵ The core elements included are security of tenure, protection against forced evictions, availability of services, materials, facilities and infrastructure, affordability, habitability, accessibility, location and cultural adequacy.⁴⁶ The rising of sea levels and storm surges are examples of climate change effects that undermine the right to adequate housing, which have already led to the relocation and migration of many people around the world. For instance, settlements located on coasts, in low-lying islands and mega-delta are particularly at risk. Moreover, recent impacts of climate change increasingly force people to migrate from rural to urban areas, which are mostly characterised by fragile slums subject to even greater risk in the case of extreme climate events.⁴⁷

Lastly, one of the fundamental principles of international law is the right to self-determination. The correlation between self-determination and climate change is particularly important because sea levels rise and extreme weather are threatening the existence of inhabitants in low-lying island States. Among others, indigenous peoples are highly vulnerable as they might be deprived of their territory due to the hazards of climate change. The potential disappearance of entire populations and small islands has consequences not only for the right to self-determination but also for all the other human rights that individuals rely upon the State to safeguard and protect. This is why the OHCHR strongly emphasised States’ positive obligation to address the threats of climate change to the right of self-determination, as well as to social and cultural identity of indigenous peoples.⁴⁸

In accordance with international law, states and governments entities must ensure that their efforts, whether through mitigation or adaptation measures, do not infringe upon human rights. This duty to respect human rights applies not only to individual projects but also to broader policy choices. Despite this, there are clear examples of mitigation and adaptation projects that can undermine the enjoyment of human rights. For instance, in the case of mitigation, hydroelectric

⁴⁴ UN Human Rights Council, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, 15 January 2009, A/HRC/10/61, available at: <https://www.refworld.org/docid/498811532.html>. (accessed 18 June 2023).

⁴⁵ UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 4: The Right to Adequate Housing (Art. 11 (1) of the Covenant), 13 December 1991, E/1992/23, available at: <https://www.refworld.org/docid/47a7079a1.html> (accessed 18 June 2023).

⁴⁶ Ibid.

⁴⁷ UN Human Rights Council, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, 15 January 2009, A/HRC/10/61, available at: <https://www.refworld.org/docid/498811532.html>. (accessed 18 June 2023).

⁴⁸ Ibid.

and biofuels projects can lead to possible human rights violations. Hydroelectric activities might destroy ecosystems and displace local people and communities while biofuels policies can contribute to food shortages and price shocks, additional water stress and scarcity, widespread deforestation, and displacement of indigenous peoples and small-scale farmers through land acquisitions.⁴⁹ Similarly, for adaptation there is also a risk of interference with human rights as in this circumstance an adaptation plan might benefit one group to the detriment of another, or in the cases of relocation and resettlement, it may concern the inadequate lack of consent for those subjected to such displacements.⁵⁰

The main difference between mitigation and adaptation actions is that they have a different timeframe with regard to human rights benefits: while for adaptation projects is easier to apply a human rights framework and consequently achieve effective human rights benefits in a shorter-medium period, mitigation actions are not considered to be ‘as direct, immediate and predictable.’⁵¹ Hence, the result of a successful policy on mitigation is only tangible after years of long cuts of GHGs emissions and barely ensures advantages in terms of human rights for the population.

From a human rights perspective, can developing countries accept the decrease of their consumption when developed countries have been mainly responsible for the current concentration of GHGs in the atmosphere? It is the very preamble of the UNFCCC that expresses the priority for developing countries to pursue economic growth and poverty reduction, yet according to the core principles of equity, accountability and burden sharing they are not excluded from their obligation to integrate GHGs mitigation goals into their policies and laws.⁵² For instance, the large and constant economic expansion of countries such as India and China in recent years has raised some concerns. It became difficult to rely on the principle of common but differentiated responsibilities articulated in the Convention and the Protocol since GHGs emissions are now no longer mainly attributable to Europe and North America but also to China, India, and Brazil. The dilemma then arises as to whether the 'historical' approach that sees developed states as the main contributors to climate change is, at present, the most sustainable one given the economic realities of some developing countries.⁵³ Either way, the human rights approach considers it crucial that mitigation measures undertaken by developing countries do not

⁴⁹ Burger and Wentz , “Climate Change and Human Rights,” 8.

⁵⁰ Ibid. 10

⁵¹ Benoit Mayer, “Climate Change Mitigation as an Obligation under Human Rights Treaties?,” *American Journal of International Law* 115, no. 3 (July 3, 2021): pp. 409-451, <https://doi.org/10.1017/ajil.2021.416>.

⁵² Burger and Wentz, “Climate Change and Human Rights,” 24.

⁵³ Birnie, Boyle and Redgwell, *International Law and the Environment*, 357.

hinder their growth process, and likewise, that adaptation measures do not exceed their capacity and ability.⁵⁴

In terms of finance, mitigation remains the area in which developed countries invest the most: according to the Organization for Economic Cooperation and Development, over two-thirds of climate finance was devoted only to mitigation. On the other hand, investments for climate change adaptation are not sufficient to counter the current and future impacts of climate change, especially for developing countries that have much more need to prioritise adaptation strategies.⁵⁵

2.2. Human rights obligations in the context of climate change

At the UN level, States that are party to the nine-core international human rights instruments are subjected to legally binding obligations, which comprehend also some related to climate change. Examples of obligations in this context regard, among other things, the duty of the State to take action to protect people against climate change-related harms that impact on the enjoyment of human rights or to implement inclusive climate policies.⁵⁶ The Human Rights Council (HRC) adopted two important resolutions that impose certain obligation on states, namely Resolution 17/4 on ‘The Guiding Principles on Business and Human Rights’ and Resolution 48/13 which recognises the right to a clean, healthy and sustainable environment.

The first resolution regards the states’ obligation ‘to protect against human rights abuse within their territory or jurisdiction by third parties, including by business enterprises.’⁵⁷ For instance, the resolution seeks to make business enterprises accountable when their activity harm or contribute to the adverse human rights impacts, and consequently to guarantee to those affected the right to an effective remedy.⁵⁸ This resolution that addresses private sector obligations was proposed by UN Special Representative John Ruggie, who developed a series of principles directly applicable to private actors, namely:

1. Businesses must respect human rights by refraining from infringing upon the rights of others and by addressing any negative impacts on human rights that may arise from their activities.
2. The rights that businesses must respect encompass, at a minimum, those recognised in the International Bill of Rights (which includes the Universal Declaration of Human Rights, the

⁵⁴ Atapattu, “Human Rights Approaches to Climate Change Challenges and Opportunities,” 126.

⁵⁵ UN Secretary General, *The impacts of climate change on the human rights of people in vulnerable situations: report of the Secretary-General*, 2022, A/HRC/50/57, available at: <https://digitallibrary.un.org/> (accessed May 8, 2023).

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights), as well as the principles relating to fundamental rights outlined in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.

3. Businesses should establish and implement policies and processes appropriate to their size and specific circumstances to ensure the protection of human rights throughout their operations.
4. Businesses should undertake human rights due diligence, which involves assessing both actual and potential impacts on human rights, incorporating and acting upon the findings, monitoring responses, and effectively communicating how the identified impacts are being addressed.
5. In cases where businesses identify that they have caused or contributed to adverse impacts on human rights, they should take measures to provide for remediation or cooperate in legitimate processes aimed at addressing these impacts.⁵⁹

The other resolution, adopted in 2021 by the HRC, finally ensures that all people can benefit from a climate that is safe and stable, ecosystems that are healthy, and an environment that is free from toxins. This includes guaranteeing people's rights to participate in environmental decision-making, access information about environmental issues, and seek justice when environmental harms occur.⁶⁰

UN Committees such as the Committee on Economic, Social and Cultural Rights (CESCR), the Committee on the Elimination of Discrimination against Women (CEDAW) and many more have supported the argument that states do have obligations to mitigate and adapt to climate change under human rights treaties. In one of its General Recommendations, CEDAW affirmed the duty of States to 'mitigate and adapt to climate change in order to reduce the increased risk of disasters (...).'⁶¹ In terms of mitigation, the Committee explicitly affirms that 'limiting fossil fuel use and greenhouse gas emissions and the harmful environmental effects of extractive industries such as mining and fracking, as well as the allocation of climate financing, are regarded as crucial steps

⁵⁹ UN Office of the High Commissioner for Human Rights, *Guiding Principles on Business and Human Rights : Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011, [ST/HRC/PUB/11/4, available at: <https://digitallibrary.un.org/> (accessed July 3, 2023).

⁶⁰ UN Secretary General, *The impacts of climate change on the human rights of people in vulnerable situations : report of the Secretary-General*, 2022, A/HRC/50/57, available at: <https://digitallibrary.un.org/> (accessed May 8, 2023).

⁶¹ UN Committee on the Elimination of Discrimination against Women, *General Recommendation No. 37 on the Gender-Related Dimensions of Disaster Risk Reduction in the Context of Climate Change*, 2018, CEDAW/C/GC/37, available at: <https://digitallibrary.un.org/> (accessed May 10, 2023).

in mitigating the negative human rights impact of climate change and disasters.’⁶² Therefore, this demonstrates that there is a great deal of support concerning the interpretation of human rights treaties as principal instrument capable of giving rise to mitigation and adaptation obligations. Such view is reinforced by many opinions and recommendations made by Special Rapporteurs in their analysis of climate change from a human rights perspective. They highlight the benefits of independent mechanisms: firstly, the assessments on the implementation of obligations under the relevant treaties are free from political interference while secondly, human rights norms and principles are used as the main guidance by States and other actors in countering the adverse impacts of climate change.⁶³ Despite the growing consensus on this matter, there is no shortage of criticism regarding human rights treaties. One in particular concerns the framing of human rights protection within the territory of a State, leaving aside the extraterritorial conception of applicability.⁶⁴ In this regard, a potential way to address states’ obligations to protect human rights concerns international cooperation, as it might be able to achieve successful outcomes in terms of mitigation and adaptation of climate change. Especially when it comes to mitigation strategies, a single action of a state is not considered sufficient to reduce global emissions of GHGs. Below, particular attention is dedicated to the role of cooperation and what kind of obligations may arise in the governance of climate change.

2.3. International cooperation as an effective response to climate change

The importance of cooperation is widely recognised by many international agreements, namely the UNFCCC, the Charter of the United Nations, the International Covenant on Economic, Social and Cultural Rights and the Declaration on the Right to Development.⁶⁵ According to the preamble of the UNFCCC and Article 55 of the UN Charter, there are some issues that are of ‘international concern’ which expect all states to cooperate: this view, however, is based more on principles of general international law and cannot be considered as a real ‘human rights obligation’.

⁶² UN Committee on the Elimination of Discrimination against Women, *General Recommendation No. 37 on the Gender-Related Dimensions of Disaster Risk Reduction in the Context of Climate Change*, 2018, CEDAW/C/GC/37, available at: <https://digitallibrary.un.org/> (accessed May 10, 2023).

⁶³ Farrall, “Analysis of Climate Change from a Human Rights Perspective,”. 115.

⁶⁴ Mayer, “Climate Change Mitigation as an Obligation under Human Rights Treaties?,”. 413.

⁶⁵ UN Secretary General, *The impacts of climate change on the human rights of people in vulnerable situations : report of the Secretary-General*, 2022, A/HRC/50/57, available at: <https://digitallibrary.un.org/> (accessed May 8, 2023).

In the report of the OHCHR, the section on ‘obligations of international cooperation’ mentions four categories of extraterritorial obligations identified by the Committee on Economic, Social and Cultural Rights. As a result, States are legally bound to fulfill certain obligations such as:

- Refrain from interfering with the enjoyment of human rights in other countries
- Take measures to prevent third parties (e.g. private companies) over which they hold influence from interfering with the enjoyment of human rights in other countries
- Take steps through international assistance and cooperation, depending on the availability of resources, to facilitate fulfilment of human rights in other countries, including disaster relief, emergency assistance, and assistance to refugees and displaced persons
- Ensure that human rights are given due attention in international agreements and that such agreements do not adversely impact upon human rights.⁶⁶

From a human rights-based perspective, international cooperation is required for both the fields of mitigation and financing of climate change. In climate finance, states must cooperate internationally for the investments of actions that protect human rights of individuals, especially the ones in vulnerable situations. Using this rights-based approach is further relevant when it comes to provide large financial aid to address urgent needs in developing countries, such as the implementation of adaptation measures. Even though under the Paris Agreement developed countries agreed to address climate finance according to their ‘common but differentiated responsibilities’⁶⁷, unfortunately most of climate finance comes from countries’ domestic resources.⁶⁸ Indeed, developed countries have the responsibility to support financially the activities of poorer countries that try to deal with the adverse effects of climate change, as well as to provide help concerning the ‘economic and non-economic losses on resources and human rights, including to culture, life, livelihoods and territory – benefiting the most vulnerable first.’⁶⁹

As previously mentioned, under general international law there is no such obligation that regard specifically the cooperation among states to protect human rights in relation to climate change, rather there is more a collective duty to cooperate on matters that have global implications. Still, according to the reports of John Knox, a former UN Special Rapporteur on human rights and the

⁶⁶ UN Human Rights Council, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, 15 January 2009, A/HRC/10/61, available at: <https://www.refworld.org/docid/498811532.html>. (accessed 18 June 2023).

⁶⁷ United Nations, UN Framework Convention on Climate Change, 1992, FCCC/INFORMAL/84, available at: <https://unfccc.int/process-and-meetings/the-convention/history-of-the-convention/convention-documents>

⁶⁸ UN Secretary General, *The impacts of climate change on the human rights of people in vulnerable situations : report of the Secretary-General*, 2022, A/HRC/50/57, available at: <https://digitallibrary.un.org/> (accessed May 8, 2023).

⁶⁹ Ibid.

environment, this ‘general duty’ of states might be interpreted as one that might generate positive obligations, particularly with regard to the limitation of emissions of GHGs in the atmosphere. If one adopts this broad perspective, however, in human rights treaties there is no explicit mention to cooperate internationally because they already assume that states need to act in ‘good faith’ and without undermining the capacity of others to fulfill their obligations. Hence, by Knox, the ‘non-cooperation’ attitude of states regarding the mitigation of climate change would be considered as an infringement of their duties under human rights law.⁷⁰ At the same time, international cooperation in climate mitigation can be seen as a reasonable and appropriate measure because it can concretely lead to the individual enjoyment of human rights within a state’s territory or jurisdiction. By contrast, the single action of a state rarely benefits the rights of individuals, indeed it can have a negative effect on them by potentially creating a burden on both individuals and public resources.⁷¹

If applied to climate change, the general international law obligation of cooperation would also require states to participate equally in actions to counter climate change, regardless of their situation or interests in reducing and preventing its impacts. Undoubtedly, there are many differences between states, as some are more vulnerable and exposed than others, so the ones that are less affected need at least to play a constructive role by facilitating international agreements on climate change. For example, contributing financially or with technical support to plans whose goal is to mitigate the adverse effects of climate change are adequate ways in which states can cooperate effectively, as well as holding accountable states that do not comply to their obligations through the imposition of sanctions or restrictions.⁷²

In conclusion, by giving a considerable value to international cooperation in the climate change analysis, it might be reasonable to allow potential applicants, who seek justice before national or regional courts, to rely not only on human rights obligations but also on states’ general obligation of cooperation.

2.4. The principle of intergenerational equity

As in the case of international cooperation, an equally well-established theory in international law, and more specifically in international environmental law, is that of intergenerational equity.

⁷⁰ Mayer, “Climate Change Mitigation as an Obligation under Human Rights Treaties?,” 432.

⁷¹ Ibid.

⁷² Ibid, 435.

Together with the precautionary principle, the principle of intergenerational equity is embedded in article 3 of the UNFCCC:

‘The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.’⁷³ Additionally, ‘The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.’⁷⁴

According to Brown Weiss, the theory of intergenerational equity assumes that human beings share the natural environment with other species, present and future generations, and fellow individuals. The current generations have a dual role: firstly as trustees, because they are responsible for preserving and maintaining the strength and wholeness of the planet. Secondly as beneficiaries, for their right to utilize and derive benefits from the environment for their own well-being.⁷⁵ This concept, well grounded in the foundations of international law, emphasises the importance of conserving resources, including their quality, and safeguarding the integrity of the natural environment to maintain options for future use.⁷⁶ Whereas with regard to the precautionary principle, the UNFCCC stresses the importance that, in the face of uncertainty, precautionary measures should not be delayed to anticipate, prevent, or reduce the causes and impacts of climate change.⁷⁷

The implementation of the theory of intergenerational equity remains a crucial aspect, particularly in the context of legal proceedings before international courts. While international institutions already consider the interests of future generations in their policies, as well as the adoption of the precautionary principle, the challenge lies in effectively incorporating these interests into the framework of international court proceedings. The representation of future generations remains an underdeveloped aspect, as demonstrated by the lack of explicit recognition of their rights in international courts. Currently, there is no comprehensive theory that grants standing to future generations independently of states and international institutions, which are the main parties in

⁷³ United Nations, UN Framework Convention on Climate Change, 1992, FCCC/INFORMAL/84, available at: <https://unfccc.int/process-and-meetings/the-convention/history-of-the-convention/convention-documents>.

⁷⁴ United Nations, UN Framework Convention on Climate Change, 1992, FCCC/INFORMAL/84, available at: <https://unfccc.int/process-and-meetings/the-convention/history-of-the-convention/convention-documents>.

⁷⁵ Edith Brown Weiss, "In Fairness to Future Generations and Sustainable Development," *American University Journal of International Law and Policy* 8, no. 1 (Fall 1992):19-26. 20.

⁷⁶ Birnie, Boyle and Redgwell, *International Law and the Environment*, 119.

⁷⁷ UN Human Rights Council, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, 15 January 2009, A/HRC/10/61, available at: <https://www.refworld.org/docid/498811532.html>. (accessed 18 June 2023).

international litigation. While there have been some instances of interstate or advisory proceedings before the International Court of Justice (ICJ) and certain international human rights decisions that have addressed intergenerational responsibilities, these cases typically concern the present generation seeking redress for past wrongs rather than future generations challenging the actions of the present.⁷⁸ As author Brown Weiss suggests, in order to fulfill the obligations to future generations, it is required a long-term perspective. This implies a radical change in institutions, economic incentives, legal frameworks, public awareness, and political determination. Initiating this process is indispensable for achieving sustainable development.⁷⁹

While the notions of intergenerational equity and the precautionary principle are less developed in human rights law and have received limited attention from human rights treaty bodies, it is important to recognize their significance. Human rights principles of equality and non-discrimination primarily address present-day situations, yet their value and relevance can extend to future generations.⁸⁰ To comprehensively approach climate change from a human rights perspective, it is crucial to align the perspective of intergenerational equity with that of human rights. These concepts collectively emphasize the urgency of timely and decisive action in response to the challenges posed by climate change.

2.5. The advantages of international human rights law

With respect to international human rights, governments are subjected to three different types of duties: duty to respect, protect and fulfill human rights. While the duty to respect implies to ‘refrain from interfering with or curtailing the enjoyment of human rights’,⁸¹ the other duties to protect and fulfill consist in positive obligations for states. According to various UN bodies and regional courts, these positive obligations might be raised when there is the risk of environmental harms that interfere with the exercise of human rights, such as the severe impacts of climate change. In this sense, human rights law can require states to ‘enact legal and institutional frameworks to protect against and respond to those impacts.’⁸²

⁷⁸ Burger and Wentz, “*Climate Change and Human Rights*,” 121.

⁷⁹ Edith Brown Weiss, “In Fairness to Future Generations and Sustainable Development,” 26.

⁸⁰ Ibid. 29

⁸¹ Office of the High Commissioner for Human Rights, *International Human Rights Law*, <https://www.ohchr.org/en/instruments-and-mechanisms/international-human-rights-law#:~:text=The%20obligation%20to%20respect%20means,groups%20against%20human%20rights%20abuses>. (accessed June 4, 2023).

⁸² Burger and Wentz, “*Climate Change and Human Rights*,” 19.

Although the main frameworks of the UNFCCC and the Paris Agreement provide that states parties need to take adequate measures to achieve their goals and to engage in the implementation of mitigation actions, they do not contemplate any mechanism that is able to review their compliance with the obligations set out in the climate treaties.⁸³ On the other hand, the benefits of human rights treaties include the possibility to file complaints, individually or as a group, before international bodies or regional human rights courts, together with the carrying out of periodical reviews and concluding observations by treaty bodies. Hence, human rights treaties, as opposed to climate treaties or customary law provisions, guarantee a system in which individuals or groups can invoke the responsibility of states if they fail to implement their obligations.⁸⁴

Regional courts such as the ECtHR are playing a central role lately, becoming one of the mechanisms most relied upon, especially by those people who are worst affected by climate change. Over the past few years, there have been various cases brought before the European Court of Human Rights. Most of them deal with plaintiffs complaining about the failure of some European states to respect their positive obligations to ‘protect’ and ‘fulfill’ human rights that might be at risk due to the effects of climate change. Accordingly, the next analysis will concentrate to the developments in climate litigation, including both domestic cases of public interest litigation (PIL) and the system of the ECtHR.

2.6. Human rights-based litigation in the governance of climate change

2.6.1. Public interest litigation in domestic courts

The use of human rights in litigation of climate change is progressively becoming a global trend and an effective tool able to hold accountable states and businesses when they put human rights at risk. The function of public interest litigation (PIL) might cover a crucial role when applied to the governance of climate change, since its purpose aims to put pressure on governments’ actions that concern both areas of mitigation and adaptation. PIL could be explained ‘as a strategy, sometimes also a recognized type of legal action, that uses the law to advance human rights and equality or raise issues of broad public concern. It helps advance ‘the cause of minority or disadvantaged groups or individuals.’⁸⁵ In this field, the role of NGOs is essential and widely recognised, in fact, ‘not only are they able to play a major part in the negotiation of new treaties

⁸³ Mayer, “Climate Change Mitigation as an Obligation under Human Rights Treaties?,” 419.

⁸⁴ Ibid, 421.

⁸⁵ Anna Romaniszyn, "Human Rights Climate Litigation against Governments: A Comparative Overview of Current Cases and the Potential for Regional Approaches," *McGill Journal of Sustainable Development Law* 16, no. 2 (2020): 232-272. 239.

and protocols, but also they are increasingly adopting an integral role in enforcing the law by taking part in compliance mechanisms or bringing matters to court themselves.’⁸⁶

Regardless its goal of reducing GHGs emissions or enforcing current climate obligations, PIL in climate change litigation goes far beyond the mere claim for damages or the elimination of a specific policy: its intention is usually broader and consists in asking governments ‘to adopt stricter and more effective combination of laws and policies that would prove (more) effective to avert the climate crisis.’⁸⁷ It is not always possible to invoke public interest litigation because not every single jurisdiction provides for it, but its use in the context of climate change entails many advantages. Primarily, as it was previously mentioned, the fact that ‘it is political in its nature’⁸⁸ means that the applicants have the chance to contribute to a political change in climate adaptation or mitigation policies. Secondly, it is ‘by definition representative of the public interest and as such, no injury or causation need to be shown to have access to Court.’⁸⁹ The majority of rights-based climate change cases involve litigants that specifically addressed human rights framework as the most adequate to bind governments into taking the necessary measures, such as reducing greenhouse gas emissions and adapting policies to the impacts of climate change.⁹⁰ A successful example of climate change litigation is the famous case that concern the *Urgenda* judgement in 2019, which was the first in the world to establish ‘a legal duty on a government to prevent dangerous climate change.’⁹¹ The complaint of the NGO Urgenda, composed of more than 886 individual citizens, required the Dutch government to do more to prevent global climate change. The ground-breaking decision of the Supreme Court found insufficient the existing pledge of the government to cut emissions by 17% and ordered to reduce them by a minimum of 25% before 2020 compared to 1990 levels. Indeed, the innovative aspect of this case was the approach adopted by the Dutch Supreme Court that held human rights arguments in high regard. Firstly, the Court took into account the rights of future generations by granting the standing of the NGOs based on ‘the rights of both current and future generations to availability of natural resources and a safe

⁸⁶ Christian Schall, "Public Interest Litigation concerning Environmental Matters before Human Rights Courts: A Promising Future Concept," *Journal of Environmental Law* 20, no. 3 (2008): 417-454. 420.

⁸⁷ Romanisyzn, "Human Rights Climate Litigation against Governments: A Comparative Overview of Current Cases and the Potential for Regional Approaches," 235.

⁸⁸ Romanisyzn, "Human Rights Climate Litigation against Governments: A Comparative Overview of Current Cases and the Potential for Regional Approaches," 239

⁸⁹ Ibid.

⁹⁰ Kumaravadivel Guruparan and Harriet Moynihan, "Climate Change and Human Rights-Based Strategic Litigation," *Chatham House*, November 11, 2021, <https://www.chathamhouse.org/2021/11/climate-change-and-human-rights-based-strategic-litigation>. (accessed May 2, 2023).

⁹¹ Ibid, 3.

and healthy environment.’⁹² Additionally, the Dutch Court consulted in an extensive way the ‘substantive and procedural provisions of international human rights law’⁹³ and soft law as well, such as the agreements under the Paris framework to interpret domestic law. The provisions included in the ECHR and the ‘common ground’ approach of the ECtHR were not ignored either: the Supreme Court recognised that Article 2 (right to life) and 8 (right to private and family life) of the ECHR fell within the scope of the Convention in cases related to the risk of climate change. Moreover, the Dutch Court made use of the ECtHR method which provides that ‘a respondent state need not have ratified the entire collection of instruments applicable. Rather, it is sufficient if the instruments concerned represent a continuous evolution in the norms and principles applied in international law or in the domestic law of the majority of member States of the Council of Europe and shows, in a precise area, that there is common ground in modern societies.’⁹⁴

Thanks to the success of *Urgenda* case, many other human rights climate cases have been brought to trial before national and regional courts to demonstrate the inability of governments to cope with the serious consequences of the climate crisis. At the same time, successful legal action proves to be a useful mechanism that can advance the climate ambition of countries and businesses.⁹⁵ A major climate change litigation case against a corporation was brought by the environmental group *Milieudefensie/Friends of the Earth Netherlands* that complained Shell’s contributions to climate change. In the end, the Hague District Court ordered Shell group to reduce its emission by 45% by 2030, showing that the same arguments, previously used by *Urgenda*, can be extended to private companies and still succeed.

However, deciding to undertake the way of public interest litigation implies that there must be someone who can demonstrate a direct and individual concern before courts. In climate change cases, the most common strategy consists of the representation of specific vulnerable groups that have the possibility to complain their higher exposure to climate change impacts.⁹⁶

⁹² Romanisyzn, "Human Rights Climate Litigation against Governments: A Comparative Overview of Current Cases and the Potential for Regional Approaches," 239.

⁹³ Guruparan and Moynihan, "Climate Change and Human Rights-Based Strategic Litigation," 4.

⁹⁴ Ibid.

⁹⁵ UN Secretary General, *The impacts of climate change on the human rights of people in vulnerable situations : report of the Secretary-General, 2022, A/HRC/50/57*, available at: <https://digitallibrary.un.org/> (accessed May 8, 2023).

⁹⁶ Romanisyzn, "Human Rights Climate Litigation against Governments: A Comparative Overview of Current Cases and the Potential for Regional Approaches," 243.

2.6.2. The regional system of the European Convention on Human Rights

The realisation of the Convention for the Protection of Human Rights and Fundamental Freedoms established an international court, the ECtHR, which allows individuals or legal entities to lodge an application against one of the States bound by the Convention. According to the rules of the Court, the application must regard the direct victim who suffered a violation of the rights contained in the Convention or its Protocols, after having exhausted all domestic remedies available within the State concerned. In relation to the problem of climate change, it becomes very clear that raising complaints is a rather complicated task as it involves various procedural obstacles. First among them is the condition of victimhood, meaning that it is very hard to identify direct victims of violations related to climate change and how they can concretely demonstrate to be directly and seriously affected by its effects. Secondly, it is also very difficult to establish a State's liability when harmful consequences to the environment are often attributable to a multiplicity of states and single actors, such as private corporations and multinationals companies. An additional procedural challenge in this context is the limited availability of access to justice and remedies for climate-related damages. There is currently no internationally recognised mechanism that offers an alternative platform for seeking justice and remedies in this context, although many developing countries express the need for a Loss and Damage Framework to be established under the UNFCCC to address this gap.⁹⁷

Even though the Convention does not provide any environmental rights as such, the Court received complaints that relied mainly on Article 2, i.e. the right to life, and on Article 8 of the Convention, which protects the right to private and family life. Until now, however, the Court has not yet ruled on the issue of State climate-change action but it admitted several cases that address the general State's failure to implement the adequate measures in the area of climate protection.

At time of writing, three major cases concerning climate change are pending before the Grand Chamber of the Court: *Duarte Agostinho and Others v. Portugal and 32 Other States*, *Carême v. France* and *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland*. In the first case, a group of six young Portuguese nationals complain that the emissions produced by 33 member States contribute to the phenomenon of global warming, which particularly affect their living and health conditions.⁹⁸ The applicants believe that the States in question did not respect their positive obligations contained in Articles 2 and 8 of the Convention, both interpreted according to their

⁹⁷ Burger and Wentz, "Climate Change and Human Rights," 35.

⁹⁸ *Duarte Agostinho and Others v. Portugal and 32 Other States* (press release), no. 39371/20, 30 June 2022.

commitments under the Paris Agreement on climate change. The second case also refers to Article 2 and 8 of the ECHR and concerns a French citizen and former mayor who complains that France has not taken the necessary steps to prevent climate change. The last and most relevant case for the current research is *Verein KlimaSeniorinnen and Others v Switzerland* as it relates to how the impacts of climate change affect women differently. The case at hand manages to overcome the procedural hurdles discussed above. In the first place, in identifying the direct victims, the applicants relied on scientific studies that particularly indicate how older women are more exposed to an increased risk of disease and death as a result of extreme heat waves. Secondly, the Swiss association of *KlimaSeniorinnen* exhausted all domestic remedies, in fact, in addition to alleging the violation of Articles 2 and 8 of the Convention, it complained that Switzerland did not grant access to a court within the meaning of Article 6, i.e. the right to a fair trial, and it did not provide an effective remedy, which results in a violation of Article 13 of the Convention.

The analysis of *Verein KlimaSeniorinnen and Others v Switzerland* will be used as a starting point for the following chapter since the complaints made by the women of the association are useful to introduce and later develop a gender perspective of climate change. The inclusion of such perspective is based on studies of gender justice and climate change, which are not only in accordance with the traditional human rights approach but also with the principles of climate justice and of inter-/intra-generational equity.⁹⁹

⁹⁹ Romaniszyzn, "Human Rights Climate Litigation against Governments: A Comparative Overview of Current Cases and the Potential for Regional Approaches," 243.

3. THE INCLUSION OF A GENDER PERSPECTIVE

3.1. The case before the ECtHR against Switzerland

The approach to climate governance launched by the Paris Agreement allowed for greater political mobilisation and call for government accountability as it gave particular priority to the role of national governments in reporting and implementing its goals and commitments.¹⁰⁰ Hence, the legal method became the most common way to invoke the responsibility of governments and the legal action pursued by KlimaSeniorinnen might represent the first attempt to enforce climate protection in the jurisprudence of the European Court of Human Rights.

The case concerns an association under Swiss law of more than 2,000 older women (many over 75 years old), who complained that the consequences of climate change exacerbate their health condition, especially the increase of heat waves has been recognised as a significant threat for women of that age. As members of a vulnerable group, the women claimed to be disproportionately affected based on scientific evidence that demonstrate their higher exposure to the hazards of climate change.¹⁰¹ Relying on article 25a of the Federal Law on administrative procedure, the association filed a request to the Federal Council and other authorities such the Department of the Environment, Transport, Energy and Communications and its two subordinate agencies, ‘pointing to various failings in the area of climate protection and seeking a decision on actions to be taken’.¹⁰² The application was rejected the first time by the Department of the Environment, Transport, Energy and Communications because the KlimaSeniorinnen ‘did not meet the formal requirements for legal standing’¹⁰³ and the other two times by the Federal Court, one in 2017 and the other in 2020, on the basis that ‘women over 75 were not the only population group affected by climate change.’¹⁰⁴

¹⁰⁰ Seline Keller and Basil Bornemann, “New Climate Activism between Politics and Law: Analyzing the Strategy of the Klimaseniorinnen Schweiz,” *Politics and Governance* 9, no. 2 (2021): 124–34, <https://doi.org/10.17645/pag.v9i2.3819>. 125.

¹⁰¹ Romanisyzn, "Human Rights Climate Litigation against Governments: A Comparative Overview of Current Cases and the Potential for Regional Approaches," 245

¹⁰² *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* (press release), no. 53600/20, 29 March 2023.

¹⁰³ Keller and Bornemann, “New Climate Activism between Politics and Law: Analyzing the Strategy of the Klimaseniorinnen Schweiz,” 126.

¹⁰⁴ Application no.53600/20, 29 March 2023.

The legal sources relied on by the association were quite interesting: from obligations included in the Paris Agreement to the provisions of the Swiss Constitution, namely the right to life (Art. 10, para. 1), the principle of sustainable development (Art. 73), and the precautionary principle (Art. 74, para. 2) and finally, two articles of the ECHR such as the right to life and the right to respect private and family life. Consequently, the definitive dismissal of the application by the Swiss Court allowed KlimaSeniorinnen to appeal to the European Court of Human Rights, which lodged the case in November 2020.

Through the use of legal action, the association of KlimaSeniorinnen covered the role of a strategic actor as it took the opportunity to enforce stronger governmental climate protection in Switzerland.¹⁰⁵ In its written communication, the Swiss association first relied on the ‘injustice frame’ which highlights human rights and the vulnerability of older women. Another point raised was in relation to future generations and how the severe consequences of global warming may affect their grandchildren, so they included in the complaint the lack of responsibility of state actors in not undertaking more ambitious climate policies.¹⁰⁶

Ultimately, as regards the potential outcomes and remedies of the case, the ECtHR can afford ‘just satisfaction’ for a violation, which unfortunately would not put an end to the respective violation.¹⁰⁷ On the other hand, the success of the case in favour of KlimaSeniorinnen has the potential to make a radical shift in the Court’s future rulings: ‘such a decision could pioneer the Court’s further case law on climate change and thus radiate to the domestic jurisdictions of ECHR member states and beyond, encouraging them to receive similar cases.’¹⁰⁸

The possible failure before the ECtHR can help understand how actors, such as KlimaSeniorinnen, reinvent themselves by changing their strategies or by exploring new ways to improve the discourse on the governance of climate change.

Having analysed the case of *Verein KlimaSeniorinnen and Others v Switzerland*, the dissertation will proceed to define the human rights-based approach in accordance with a perspective that addresses the gendered impacts of climate change. To succeed in this task, the main international legal documents and UN agreements examining the correlation between gender and climate change will be taken as reference materials to explain such approach. As a starting point, the

¹⁰⁵ Keller and Bornemann, “New Climate Activism between Politics and Law: Analyzing the Strategy of the Klimaseniorinnen Schweiz,” 125.

¹⁰⁶ Ibid, 129.

¹⁰⁷ Johannes Reich, Flora Hausammann, and Nina Victoria Boss: *Climate Change Litigation Before the ECtHR: How Senior Women from Switzerland Might Advance Human Rights Law*, *VerfBlog*, (2022), <https://verfassungsblog.de/climate-change-litigation-before-the-ecthr/>, DOI: 10.17176/20220516-182357-0,” 4.

¹⁰⁸ Ibid.

central argument mentioned in the present case of the ECtHR regarding vulnerability in the climate change context will be outlined.

3.2. The vulnerability issue

According to the OHCHR, people in vulnerable situations that suffer from adverse impacts of climate change include ‘indigenous people, local communities, peasants, migrants, children, women, person with disabilities, people living in small island developing States and least developed countries, persons living in conditions of water scarcity, desertification, land degradation and drought, and others in vulnerable situations who are at risk of being left behind.’¹⁰⁹ The UN and an increasingly substantial body of researches observed that climate change cannot be considered solely as an environmental problem but also as a social justice issue, which recalls both climate action and socio-economic equality.¹¹⁰ Therefore, the effects of climate change exacerbate the condition of those already in vulnerable situations.

Vulnerability assessments in the context of climate change have usually emphasised the economic impacts, for example on health and water sectors, rather than the vulnerabilities of specific groups.¹¹¹ However, in the case of gendered vulnerabilities, the recognition of such a concept has been very widespread. In 2009, when the OHCHR published the report on the relationship between climate change and human rights, there was already mentioned the higher exposure of women to climate change-related risks. Their vulnerable situation is directly related to the existence of gender discrimination, inequality, and inhibiting gender roles.¹¹² Moreover, the report particularly highlighted the increased likelihood of elderly women being affected by extreme weather phenomena, which is, inter alia, the criterion relied upon by KlimaSeniorinnen in their case before the ECtHR. Women are among the people most severely exposed to natural disasters, as many reports have shown that women’s and children’s probability to be affected in ecological disasters is way higher in comparison to men.¹¹³ For example, a study in Bangladesh illustrated women’s ‘higher rates of mortality, increased workloads, risks of sexual harassment, and little scope to participate in disaster management activities. Indicators of such vulnerability regard the

¹⁰⁹ UN Secretary General, *The impacts of climate change on the human rights of people in vulnerable situations : report of the Secretary-General*, 2022, A/HRC/50/57, available at: <https://digitallibrary.un.org/> (accessed May 8, 2023).

¹¹⁰ Ibid.

¹¹¹ UN Human Rights Council, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, 15 January 2009, A/HRC/10/61, available at: <https://www.refworld.org/docid/498811532.html>. (accessed 18 June 2023).

¹¹² Ibid.

¹¹³ Ibid.

likelihood of women to live in poverty, to not possess their own land or propriety, to cover less space in the decision-making process.’¹¹⁴

Studies on gender vulnerability point out that women’s vulnerability is not so much ‘intrinsic’ or ‘natural’ as it reflects gender and power inequalities in societies across the world.¹¹⁵ In addition, Fatima Denton acknowledged that while climate change is a threat to human security in general, gender inequality represents just one of several layers of vulnerability in the face of diverse climate impacts.¹¹⁶ Under the UNFCCC, assessments on gender-specific vulnerability are decisive for the implementation of adaptation and mitigation measures.

3.3. Gender and rights-based approach to climate change

The case of climate litigation before the European Court of Human Rights particularly highlighted the vulnerability with which women are often associated in contexts such as climate change, as they referred to their higher exposure to its harmful effects. Although it is essential to emphasise women’s vulnerable conditions when analysing the phenomenon, the research rather aims to discuss the gendered impacts of climate change, recognising that women and men are perceived and are affected differently by its effects due to a series of structural barriers that reinforce gender-based inequality. While some women might be less inclined than men to be affected by the adverse impacts of climate change, these structural barriers include the perpetuation of discrimination, inequality, and patriarchal systems which limit their effective adaptation capacity to counter the phenomenon. Therefore, the inclusion of a gendered approach to climate action, both in adaptation and mitigation strategies, is not only beneficial from a legal and ethical point of view but makes it even more effective.¹¹⁷

In relation to people in vulnerable situations in the context of climate change, the UN Secretary General affirmed that the legal and policy framework on climate action adopted by the states party must ensure that vulnerable people are empowered and able to participate as effective rights holders.¹¹⁸ The area that regards participation and leadership is of paramount importance since

¹¹⁴ Margaret Alston, “Gender Mainstreaming and Climate Change,” *Women's Studies International Forum* 47 (March 21, 2013): pp. 287-294, <https://doi.org/10.1016/j.wsif.2013.01.016>, 288.

¹¹⁵ Rebecca Pearse, “Gender and Climate Change,” *WIREs Climate Change* 8, no. 2 (2016), <https://doi.org/10.1002/wcc.451>. 3.

¹¹⁶ Fatma Denton. “Climate Change Vulnerability, Impacts, and Adaptation: Why Does Gender Matter?” *Gender and Development* 10, no. 2 (2002): 10–20. <http://www.jstor.org/stable/4030569>. 13.

¹¹⁷ Office of the United Nations High Commissioner for Human Rights, *Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women*, 2019, A/HRC/41/26, available at: <https://digitallibrary.un.org/> (accessed May 22, 2023).

¹¹⁸ UN Secretary General, *The impacts of climate change on the human rights of people in vulnerable situations : report of the Secretary-General*, 2022, A/HRC/50/57, available at: <https://digitallibrary.un.org/> (accessed May 8, 2023).

ensuring women's participation in climate action guarantees that their needs are taken into account and advances the realisation of other human rights, especially in the decision-making and implementation processes. The beneficial aspects of the full and equal participation of women are based on studies that demonstrate their role as agents of change: given the unique knowledge and problem-solving capabilities, women are more conscious and efficient in the use of climate finance and are particularly decisive in action plans at the local level.¹¹⁹ These arguments are well supported by the perspective that acknowledges women's increased awareness to climate change not only for their family but also their surrounding community.¹²⁰ For instance, a problem that affects many communities of rural women around the world concerns the activities that prevent them to invest in education and training programmes, such as recovering water or gathering fuelwood and food, as well as taking care of the children and the house. Consequently, their participation in decision-making bodies and inclusion in climate governance becomes limited.

At the international level, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) represents a key instrument that addresses 'women's participation at an equal level to that of men in political, social, economic and cultural development.'¹²¹ In 2018, the Committee on the Elimination of Discrimination against Women released the General recommendation No.37 on the gender-related dimensions of disaster risk reduction in the context of climate change, in which identified some general principles in the Convention that can be linked to disaster risk reduction and climate change: non-discrimination and substantive representation, participation and empowerment, accountability and access to justice. The Committee then identified for each category a set of recommendations, where the specific measures to successfully achieve the principles at issue are described. With respect to the sphere of participation and empowerment, the recommendation echoes the essential role of girls and young women in the creation, development, implementation and monitoring policies and plans relating to climate change, as well as their crucial contributions to environmental management at local, national, regional and international level.¹²² In the last section on recommendation to States parties, the Committee identified five main points to ensure equal participation and empowerment to women and girls: first, the adoption of targeted policies, including special measures and quotas

¹¹⁹Office of the United Nations High Commissioner for Human Rights, *Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women*, 2019, A/HRC/41/26, available at: <https://digitallibrary.un.org/> (accessed May 22, 2023).

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² UN Committee on the Elimination of Discrimination against Women, *General recommendation No. 37 on the gender-related dimensions of disaster risk reduction in the context of climate change*, 2018, CEDAW/C/GC/37, available at: <https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-recommendation-no37-2018-gender-related> (accessed May 22, 2023).

as provided for in article 4 of the Convention and in general recommendation No. 25 (2004) and second, the development of programmes that guarantee the participation and leadership of women in politics and civil society, particularly on local level. The third point specifically recognised the positive obligation for States to adopt measures ensuring that girls, young women and women who belong to indigenous and other marginalized groups have the opportunity to be represented in those mechanisms. Lastly, the final two recommendations highlight the importance to allocate adequate resources for gender-related issues and for strengthening women leadership's capacity in disaster risk reduction and response and climate change mitigation, at all levels and across all relevant sectors.¹²³

In addition to participation and decision-making, climate finance is another crucial area in which a gender approach must be integrated. For example, the implementation of climate projects on mitigation and adaptation that do not recognise the gendered impacts of climate change will result in the exacerbation of gender inequality. At the same time, full and effective participation of women need to be assured in climate finance, as the investments towards climate policies and laws must guarantee a framework that benefits and advances the enjoyment of women's rights.¹²⁴

3.4. Women's rights and climate change

Building on IPCC's findings, the thesis has previously discussed which human rights are particularly at risk due to climate change: the right to life, the right to adequate food, the right to water, the right to health, the right to adequate housing, and the right to self-determination. In addition to these rights, climate change further affects women's rights and conditions. The report of the OHCHR found several gendered impacts, which include sexual and reproductive health and rights, sexual and gender-based violence and discrimination, and women environmental human rights defenders.

Firstly, climate change can have adverse impacts on women's access to sexual and reproductive health services. For example, the movement of people due to climate change can make these services less available and accessible. Furthermore, the increase of extreme weather events can lead to the destruction of vital infrastructures and contribute to worse quality, availability, and accessibility of sexual and reproductive health services. The absence of contraception services

¹²³ UN Committee on the Elimination of Discrimination against Women, *General recommendation No. 37 on the gender-related dimensions of disaster risk reduction in the context of climate change*, 2018, CEDAW/C/GC/37, available at: <https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-recommendation-no37-2018-gender-related> (accessed May 22, 2023).

¹²⁴ Ibid.

can result in unintended pregnancies, and the resulting women's inability to access abortion can increase maternal mortality and morbidity. Moreover, unsanitary water and limited mobility can impact sexual and reproductive rights. At the same time, poor air quality from the burning of fossil fuels can affect maternal and child health by causing intrauterine growth restriction and congenital defects.¹²⁵

Secondly, climate change amplifies the risks of sexual and gender-based violence. The report acknowledged that the adverse impacts of climate change can push individuals into economic distress, leading to harmful coping strategies such as child forced marriages. When extreme weather events occur, women face a heightened vulnerability to sexual and gender-based violence. For example, the displacements caused by disasters can lead the survivors into evacuation centres where women usually experience feelings of insecurity and become targets of sexual violence, harassment, and discrimination. In the aftermath of disasters, the effectiveness of law enforcement can be compromised due to resource restrictions, and this may disincentivise women from reporting incidents of sexual and gender-based violence.¹²⁶

Another gendered impact regards women who are engaged in human rights advocacy. The detrimental impacts of climate change heighten the dangers posed to land, water, species, and livelihoods, thereby affecting women who reside in and depend on ecosystems for their own sustenance and that of their families and communities. Women that actively protect those ecosystems often bear a heavy burden. Similar to all human rights defenders, women encounter various risks, including assassination, criminalisation, intimidation, and assault. Furthermore, they are subjected to additional threats of gender-specific violence that can result in adverse social consequences such as stigmatisation and discrimination.¹²⁷

3.5. Gender mainstreaming in the international climate frameworks

In order to develop a coherent gender and rights-based approach to climate change, it is necessary to explain the process of gender mainstreaming: in the first place because gender mainstreaming is a strategy included in many international frameworks, such those of climate change, and second because it is of paramount importance in advancing the next analysis on how gender is implemented in mitigation and adaptation actions of climate change.

¹²⁵ Office of the United Nations High Commissioner for Human Rights, *Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women*, 2019, A/HRC/41/26, available at: <https://digitallibrary.un.org/> (accessed May 22, 2023).

¹²⁶ Ibid.

¹²⁷ Ibid.

The concept was first defined in 1997 by the Economic and Social Council (ECOSOC) of the United Nations:

‘Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality.’¹²⁸

By many UN institutions, gender mainstreaming has been acknowledged to be a fundamental strategy for the implementation of a human rights and gender approach in climate action. In this sense, UN Women represents a leading role to ensure that gender equality is embedded in all development, peace and human rights agendas,¹²⁹ including initiatives on climate change. Examples where gender mainstreaming has been the main focus in programmes related to climate change are Women’s Entrepreneurship for Sustainable Energy, Women’s empowerment through Climate-Smart Agriculture and Addressing the Gender Inequality of Risk in a Changing Climate.¹³⁰

3.5.1. Adaptation area

To analyse the implementation of gender mainstreaming in climate change adaptation, the principal frameworks that address gender equality in their goals and strategies will be taken as a reference. The rationale is that adaptation mainly deals with the spheres of decision-making and participation, contexts in which gender mainstreaming has been mostly embedded.

The 2030 Agenda for Sustainable Development identified gender equality and climate change among its 17 interdependent goals. Specifically, Goal 13 on climate action expresses the urgent need to ‘promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women.’¹³¹ As well as Goal 16 (peace, justice and strong institutions) and Goal 17

¹²⁸ UN. Economic and Social Council, *Report of the Economic and Social Council for 1997, 1999, A/52/3/Rev.1*, available at: <https://digitallibrary.un.org/> (accessed May 23, 2023).

¹²⁹ UN Women, “*UN roles and responsibilities*”, <https://www.unwomen.org/en/how-we-work/un-system-coordination/gender-mainstreaming/un-roles-and-responsibilities> (accessed May 23, 2023).

¹³⁰ Office of the United Nations High Commissioner for Human Rights, *Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women*, 2019, A/HRC/41/26, available at: <https://digitallibrary.un.org/> (accessed May 22, 2023).

¹³¹ United Nations, ‘*Transforming our world: the 2030 Agenda for Sustainable Development*’, 2015, A/RES/70/1, available at: <https://sdgs.un.org/> (accessed May 23, 2023).

(means of implementation) both emphasise a decision-making process that is inclusive, participatory and representative at all levels, and strongly promote progress towards all goals of the Agenda, including Goal 13.¹³²

As regards the UNFCCC, the recognition of the correlation between gender equality and climate change took quite some time: at the moment of adoption, the Convention did not incorporate any provisions on gender, making it the only one between the three Multilateral Environmental Agreements developed in 1992 that did not include a gender-sensitive language in its text.¹³³ It was Decision 23/CP.18 on ‘*Promoting gender balance and improving the participation of women in UNFCCC negotiations and in the representation of Parties in bodies established pursuant to the Convention or the Kyoto Protocol*’ that allowed women’s participation in its processes. Thanks to Decision 23/CP.18, some major steps have been made towards the implementation of gender mainstreaming in climate change discussions: firstly, it ensured women’s presence in climate negotiations and secondly it established a reporting mechanism in which the annual progress on gender-sensitive climate policy is illustrated and presented at COP. Lastly and most importantly, this decision made it possible to institutionalise gender dimensions of climate change within the COP Agenda, which in the past were previously addressed in the Convention under the section of ‘Other Matters’.¹³⁴ Additionally, the UNFCCC secretariat, which is the entity in charge of supporting the various bodies that advance the implementation of the Convention, can contribute to enhance gender mainstreaming through the provision of briefing materials and technical documents.

Under the main frameworks at the international level, it was initially mentioned the Gender Action Plan (GAP), which was established at COP 23 in 2017. The formulation of GAP takes into account the previous agreements and decisions on gender and climate change, in fact, the preamble specifically recalls the Paris Agreement, decision 23/CP.18 and the General Assembly resolution on the 2030 Agenda for Sustainable Development.¹³⁵ The GAP was first discussed under the Lima work programme on gender (LWPG) with the aim of advancing women’s full, equal and meaningful participation, as well as implementing gender mainstreaming in the Convention and

¹³² Office of the United Nations High Commissioner for Human Rights, *Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women*, 2019, A/HRC/41/26, available at: <https://digitallibrary.un.org/> (accessed May 22, 2023).

¹³³ UN Women and Mary Robinson Foundation – Climate Justice, *Advancing the goal of gender balance in multilateral and intergovernmental processes*, 2013, <https://www.unclearn.org/wp-content/uploads/library/unwomen705.pdf>.

¹³⁴ *Ibid.*

¹³⁵ UNFCCC, ‘*Establishment of a gender action plan*’, 2017, Decision 3/CP.23. https://unfccc.int/sites/default/files/cp23_auv_gender.pdf (accessed May 24, 2023).

the work of Parties, the secretariat, United Nations entities and all stakeholders at all levels.¹³⁶ GAP also recognises that gender mainstreaming is necessary to increase the effectiveness of the relevant targets and goals under the Convention, especially concerning adaptation, mitigation and related means of implementation, such as finance, technology development and capacity-building.¹³⁷ The Gender Action Plan has been applied by a variety of organisations and it is subjected to intermediate reviews, in which new amendments can be carried out, as in the latest COP 27 where Parties agreed to amend some deliverables and add three new activities in two priority areas.¹³⁸ Additionally, the activities set out by the GAP provide different actions that might be implemented and prioritised according to the capacity of Parties, as the plan acknowledges that stages in terms of progress on the agenda may differ. Overall, ‘the GAP recognizes that climate action under the Convention is a Party-driven process.’¹³⁹

The GAP is structured into five priority areas, and within each of these areas, specific actions are outlined to achieve its objectives. Section A, that concerns capacity-building, knowledge sharing and communication, aims to improve the expertise and understanding of stakeholders through the systemic integration of gender considerations and apply them in the main policies, programmes and projects on the ground. Section B regards gender balance, participation and women’s leadership, and section C is about coherence, which means that the GAP intends to constantly include and implement gender-related mandates and activities in the work of UNFCCC bodies, the secretariat and UN institutions. Section D on gender-responsive implementation and means of implementation has the purpose of ensuring gender equality in the implementation of the Convention and the Paris Agreement and lastly, section E seeks to monitor and report on gender-related mandates under the UNFCCC.

Another framework concerns NAPAs, which are the specific initiatives on adaptation under the UNFCCC, that that have been able to integrate gender mainstreaming. In a technical paper of the UNFCCC, it has been showed that:

‘Likewise, there is an increasing focus on gender considerations in the majority of the 49 NAPAs developed between 2004 and 2009 and in the 29 projects and programmes recently approved by the Adaptation Fund, with many NAPAs aiming explicitly at gender equality and including

¹³⁶ UNFCCC, ‘*Establishment of a gender action plan*’, 2017, Decision 3/CP.23.
https://unfccc.int/sites/default/files/cp23_auv_gender.pdf (accessed May 24, 2023).

¹³⁷ Ibid.

¹³⁸ UNFCCC, ‘*Gender Action Plan - Decision 3/CP.25 and amendments agreed in Decision 24/CP.27*’, 2023.
<https://unfccc.int/documents/627886> (accessed May 24, 2023).

¹³⁹ UNFCCC, ‘*Establishment of a gender action plan*’, 2017, Decision 3/CP.23.
https://unfccc.int/sites/default/files/cp23_auv_gender.pdf (accessed May 24, 2023).

specific programmes to strengthen capacities in gender analyses and gender-sensitive programming.¹⁴⁰

An analysis between NAPAs and the priority areas in the GAP was developed in a synthesis report on gender and climate change by the secretariat of the UNFCCC at the latest COP 27. It first highlighted a positive trend: as in 2022, the majority of the 52 NAPAs submitted by Parties contained a gender-sensitive and participatory approaches that addressed adaptation needs. Just 1.9% of NAPAs had a limited mention of gender while 3.8% did not include any. It then illustrated the '*Percentage of national adaptation plans containing gender references that can be aligned with priority areas of the gender action plan*': section A, which concerns the area of capacity-building, knowledge sharing and communication, represents the highest priority in NAPAs with 94.2%. The second area in which Parties referred the most is section B, where gender balance, participation and women's leadership compose 44.2% of NAPAs. The areas that contained the less percentages of gender references were priority area C and D, respectively 32.7% and 23.1%, that concerned coherence and gender-responsive implementation. Overall, the report of the secretariat highlighted the particular prominence given by Parties to capacity-building and knowledge management while positively mainstreaming gender in their adaptation planning and action.¹⁴¹

The Intergovernmental Panel on Climate Change (IPCC) is another body established by the United Nations that assesses the science related to climate change. Thanks to its objective and transparent reports, the IPCC periodically provides policymakers with assessments on climate change implications and its potential future risks, relying on the common agreements shared by the scientific community. The assessments of the IPCC are prepared by experts of three different Working Groups, each dealing with a different climate change area: Working Group I concerns Physical Science Basis, Working Group II addresses Impacts, Adaptation and Vulnerability and Working Group III that deals with Mitigation of Climate Change.¹⁴² In order to develop leading scientific assessments, the IPCC acknowledged the importance of integrating different perspectives in its work: at the 52nd Session, it was inaugurated the Gender Policy and Implementation Plan, which was drafted by an ad-hoc task group with the purpose of improving

¹⁴⁰ UNFCCC, '*Best practices and available tools for the use of indigenous and traditional knowledge and practices for adaptation, and the application of gender-sensitive approaches and tools for understanding and assessing impacts, vulnerability and adaptation to climate change*', 2013, FCCC/TP/2013/11, available at: <https://unfccc.int/resource/docs/2013/tp/11.pdf> (accessed May 24, 2023).

¹⁴¹ UNFCCC, '*Implementation of gender-responsive climate policies, plans, strategies and action as reported by Parties in regular reports and communications under the UNFCCC*', 2022, FCCC/CP/2022/6, available at: https://unfccc.int/sites/default/files/resource/cp2022_06E.pdf (accessed May 24, 2023).

¹⁴² IPCC, '*The Intergovernmental Panel on Climate Change*', <https://www.ipcc.ch/> (accessed May 25, 2023).

gender balance and addressing gender-related issues within the IPCC. The policy and implementation plan promoted by the IPCC affirms to be informed by previous relevant gender policies and guidance documents, such as the UNFCCC Gender Action Plan, UN Women Sustainable Development Goal 5 and UN Women, and aims to pursue a future condition where gender is mainstreamed into all its processes.¹⁴³ The first part of the plan that regards Gender Policy consists of three primary goals: enhancing gender equality in IPCC processes, a gender-inclusive environment and training and guidance. The second section on Gender Implementation establishes the Gender Action Team (GAT), which include the elected members of the Executive Committee, a representative from the IPCC Secretariat, and two other members selected by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO). Its main task consists of overseeing and monitoring the implementation of the goals and actions set out in the Gender Implementation Plan, as well as proposing possible future adjustments to both plans at the beginning of each assessment cycle. The role of GAT is crucial in case of gender-related issues, as it provides a protocol that allows informal and formal complaints in the context of the IPCC Gender Policy and Implementation Plan. Ultimately, GAT is also responsible for evaluating data related to the monitoring progress and reporting achievements, such as data on gender balance in IPCC bodies, author teams, national nominations, and overall participation in IPCC activities.¹⁴⁴ In the end, considering that the IPCC is the prominent framework at the intergovernmental level that brings together leading experts from around the world, the inclusion of a Gender Policy and Implementation Plan represents a clear progress towards gender mainstreaming in the field of climate change. It has been previously stated how the IPCC considers a top priority to combine different perspectives, especially the gender perspective, in order to have a coherent and overall vision of the phenomenon. Additionally, although the Gender Policy and Implementation Plan is applicable for all IPCC participants, it underlined the sovereignty of individual member countries, acknowledging that there is no intent of superseding national legislation, policies or structures. The plan aims to act in conformity with national gender policy and to set standards and expectations for the work of the IPCC.¹⁴⁵

Concerning adaptation on regional level, the Pacific Adaptation to Climate Change (PACC) Programme established in 2009, was the first initiative on climate change adaptation in the Pacific

¹⁴³ IPCC, '*IPCC Gender Policy and Implementation Plan*', 2020, https://www.ipcc.ch/site/assets/uploads/2020/05/IPCC_Gender_Policy_and_Implementation_Plan.pdf (accessed May 25, 2023).

¹⁴⁴ Ibid.

¹⁴⁵ Ibid.

region. The purpose of the programme is to work with the Pacific communities to strengthen their adaptive capacity on the ground, as well as to integrate the mainstreaming of climate risks into national activities and planning. PACC also recognised the necessity to implement a gender mainstreaming approach, as the Assessment carried out in 2012 found that gender was highly disregarded throughout the programme. Between 2013 and 2014, it launched the Gender Action Plan, in order to respond to the recommendations made by the Assessment and make substantial contributions for a gender-sensitive climate change mainstreaming at local, national and regional level.¹⁴⁶ A relevant aspect of the Gender Action Plan is that its aim is not just to include actions in relation to adaptation measures or increasing women's participation, rather it wants to integrate a gender perspective into all components and stages of the projects. Also, the gender mainstreaming in the PACC programme ensures that adaptation measures have benefits in terms of gender and reduces vulnerability among both women and men at all levels.¹⁴⁷ The objectives included in the Gender Action Plan are described as follow:

- National stakeholders and regional partners understand the gender dimensions of climate change mainstreaming and adaptation;
- Women and men, particularly at community level, are meaningfully involved in climate change mainstreaming and adaptation;
- Adaptation measures in selected pilot communities, and all replication and up-scaling activities, address gender-specific vulnerabilities and result in gender-specific benefits for both women and men;
- Women and men at local and national levels acquire technical knowledge and skills to be able to plan for and respond to climate change risks;
- Women and men in the pilot sites obtain the necessary information and climate data to become active agents in climate change adaptation;
- Women and men are equally represented in PACC programme and project governance structures at all levels and have equal opportunities to participate in decision-making about the programme;
- Effective partnerships are established with relevant institutions and organisations at national and regional levels to address the gender dimensions of climate change;

¹⁴⁶ Secretariat of the Pacific Regional Environment Programme, '*Gender and the Pacific Adaptation to Climate Change (PACC) programme: Assessment and Action Plan*', 2014, <https://www.sprep.org/attachments/Publications/CC/PACCTechRep3.pdf>

¹⁴⁷ Ibid.

- Programme and project management and accountability systems effectively plan, monitor and evaluate gender mainstreaming and gender equality results.¹⁴⁸

On the whole, the PACC Gender Action Plan represented a good attempt that integrated and promoted gender mainstreaming at the regional level.

3.5.2. Mitigation area

While gender was highly integrated in adaptation frameworks, in the case of climate change mitigation the situation is quite different. As many gender justice scholars highlighted, the area of mitigation has usually alienated gender and gendered concerns in its discourses, as its solutions mainly regard technological fixes, computer modelling and economic instruments.¹⁴⁹ The next frameworks will explore how gender mainstreaming is implemented in the mitigation context, as demonstration that women can be stewards and agents of change in programmes designed to reduce GHGs emissions.

The first and the aforementioned initiative in climate change mitigation is the UN-REDD Programme, an innovative approach that deals with deforestation and forest degradation while providing financial, environmental and social benefits to communities that depend on them in developing countries. An important progress towards gender mainstreaming in REDD+ has begun in 2011, thanks to the collaboration between the Gender Team of the United Nations Development Programme (UNDP) and UN-REDD, who promoted gender equality considerations into national REDD+ strategies and programmes. The cooperation aimed at mitigating climate change through inclusive REDD+ systems while at the same time ensuring a sustainable and human right-based approach to development.

The rationale underlying gender mainstreaming in the REDD+ programme is that gender equality constitutes a fundamental part in the human-rights-based approach to development, as it is affirmed by CEDAW and many others international instruments, such the UNFCCC. However, when it comes to forest management, the programme recognised that gender inequality usually prevails, and that women are often excluded in its decision-making despite being the main users of the forests. Because of that, it becomes a priority mainstreaming gender into REDD+.

¹⁴⁸ Secretariat of the Pacific Regional Environment Programme, '*Gender and the Pacific Adaptation to Climate Change (PACC) programme: Assessment and Action Plan*', 2014,

<https://www.sprep.org/attachments/Publications/CC/PACCTechRep3.pdf>

¹⁴⁹ Kavya Michael et al., "A Two-Step Approach to Integrating Gender Justice into Mitigation Policy: Examples from India," *Climate Policy* 20, no. 7 (2019): 800–814, <https://doi.org/10.1080/14693062.2019.1676688>. 801.

especially for its threefold benefits in terms of efficiency, efficacy and long-term sustainability.¹⁵⁰ REDD+ programmes have taken as their minimum requirement the principle of ‘do no harm’, but since gender mainstreaming improves not just equity outcomes, but also mitigation performance and environmental equality, the strategies implemented by REDD+ may be able to transcend this principle.¹⁵¹ REDD+ identified four main components in which gender mainstreaming must be implemented: stakeholder engagement, property rights, land and resource tenure, ensuring multiple benefits of forests and REDD+ and transparent, equitable and accountable management of REDD+ funds.¹⁵²

Firstly, stakeholder engagements require presence, participation, and decision-making of women in REDD+ processes and mechanisms, all measured within the context of forests’ communities. For instance, women’s labor hours in both agriculture and forestry are higher than men’s, usually due to family care and subsistence, therefore it results in their less participation and consultation in meetings regarding potential policies and programmes. In this section on gendered effects of participation, the REDD+ Programme uses as a reference a study portrayed in Madhya Pradesh in India, where it was investigated women’s participation in community-level forestry organisations. The conclusions presented in this research highlighted that a higher involvement of women in the committee’s activities lead to a higher tendency to reach positive forest outcomes. In particular, the statistics findings demonstrated that women’s participation increases the control of illicit grazing and illicit felling and the regeneration of allotted forest, respectively of 24% and 28%.¹⁵³ Therefore, positive outcomes can be observed at two different levels: the institutional level and the forest level. In the former, the involvement of women reduces the presence of illegal activities in local forests, while in the latter it improves regeneration in the forest.¹⁵⁴

The second component that relates to property rights, land and resource tenure is quite complex, as these dimensions may vary according to international, customary, and statutory laws, as well as to the different access between men and women of the forest estate, ownership to land and specific resources. REDD+ notes the particular disadvantage that poor rural women have to access

¹⁵⁰ United Nations Development Programme, ‘*The Business Case for Mainstreaming Gender in REDD+*’, 2011, <https://www.un-redd.org/> (accessed May 27, 2023).

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Arun Agrawal, Gautam Yadama, Raul Andrade and Ajoy Bhattacharya, ‘Decentralization and environmental conservation: Gender effects from participation in joint forest management.’ *International Food Policy Research Institute (IFPRI)*, CAPRI working papers. (2006).

¹⁵⁴ Ibid.

and ownership and suggests providing incentives for investors and local communities while ensuring tenurial security for women.¹⁵⁵

The third area on biodiversity acknowledges how women's subsistence activities and their gendered knowledge of the forest estate can concretely add value to projects related to forest monitoring, soil management and forest restoration functions. Such activities and knowledge are particularly beneficial, both in terms of the sustainable management of forests and the enhancement of forest carbon stocks.¹⁵⁶

Lastly, in the transparent, equitable and accountable management of funds, the REDD+ programme imported a lesson from a social welfare programme in Brazil, called Bolsa Família, which demonstrated that women's income received through direct cash transfer consequently increases their domestic status. More generally, studies by UN Women and other international agencies outlined that: 'direct cash transfers to women increases their bargaining power within the home, improves intra-household allocation of resources for human development and lessens the risk of households' resorting to negative coping mechanisms.'¹⁵⁷ In this sense, the structure of payments applied by the REDD+ Programme might contemplate the use of the successful model from Brazil to increase its sustainability, as the women-centered approach to cash transfer programmes brought mainly to positive and profitable outcomes.

In analysing some of the main areas where gender mainstreaming efforts need to be integrated to achieve more effective, sustainable, and efficient emissions reductions, the REDD+ Programme demonstrates to provide a useful and clear framework for greater gender equality in the management of deforestation in developing countries.

The United Nations Industrial Development Organization (UNIDO) adopted in 2014 a guide on gender mainstreaming in projects relating to energy and climate change, with the ultimate aim of integrating it into all UNIDO's technical cooperation programmes. For instance, the Guide expressed the gender-differentiated impacts of access to energy, which particularly affect rural women when they do not have access to modern services: an example would be the collecting of biomass fuels, a demanding activity that cause them a number of disadvantages in terms of decent wage employment, education, social and political participation outside the household.¹⁵⁸ As

¹⁵⁵ United Nations Development Programme, *'The Business Case for Mainstreaming Gender in REDD+'*, 2011, <https://www.un-redd.org/> (accessed May 27, 2023).

¹⁵⁶ United Nations Development Programme, *'The Business Case for Mainstreaming Gender in REDD+'*, 2011, <https://www.un-redd.org/> (accessed May 27, 2023).

¹⁵⁷ Ibid.

¹⁵⁸ United Nations Industrial Development Organization, *'Guide on gender mainstreaming energy and climate change projects'*, Vienna, 2014, <https://www.unido.org/> (accessed May 29, 2023).

UNDP has estimated, on average ‘women spend up 18 hours a week collecting fuel for cooking.’¹⁵⁹ In addition, as women are usually in charge of household activities, the use of traditional biomass cookstoves exposes them to harmful health effects, becoming severely affected from indoor air pollution. Moreover, participation and employment of women in the energy industry reaches very low quotas both in developing and developed countries, with the result that plans are often implemented disregarding women's energy demands and potential technical developments that would improve women's work. In fact, a study involving 72 countries showed that representation of women in ministerial positions that are responsible for national energy policies and programs is around 6%.¹⁶⁰ The causes are often related to the fact that, in the first place, women cover fewer positions in STEM's disciplines, thus reducing the opportunity of taking part in green jobs and technology innovation. Furthermore, large investments and access to credit and land are necessary for the advancement of new technologies, but this is often not feasible for women in developing countries, as generally they are not granted both access to land and finance.¹⁶¹ Therefore, the outcomes of guaranteeing sustainable and modern access to energy services would have twofold benefits: on the one hand, the reduction of gender-based time and labour burdens, on the other the improvement of health conditions and opportunities for enterprise and capacity-building in communities.¹⁶²

Gender mainstreaming has proven to be effective and promising in the context of renewable energy, making it an interesting and rapidly developing field: for instance, women's entrepreneurship is more and more widespread among projects that use locally available renewable energy sources, such as solar power. The vital role in energy provision and consumption that women held within their communities and households allows them to acquire valuable knowledge on sustainable energy solutions, which have at the same time the potential to improve their economic and social status, thanks to the earning of an income.¹⁶³ Other than the usual barriers that regard the lack of education and access to finance, women entrepreneurs are frequently subjected to gender stereotypes in the labour market that confine them in more traditional and bio-mass enterprises, while the management of businesses on modern energy technology are perceived exclusively as men's jobs.¹⁶⁴ In this regard, the UNDP recognised three

¹⁵⁹ United Nations Development Programme, ‘Energy and Gender Equality’, *UNDP Sustainable Energy Hub*, <https://www.undp.org/energy/our-work-areas/energy-and-gender-equality>, (accessed May 29,2023).

¹⁶⁰ *Ibid.*

¹⁶¹ United Nations Industrial Development Organization, ‘*Guide on gender mainstreaming energy and climate change projects*’, Vienna, 2014, <https://www.unido.org/> (accessed May 29, 2023).

¹⁶² *Ibid.*

¹⁶³ *Ibid.*

¹⁶⁴ *Ibid.*

ways in which clean energy can be an incredible tool for the economic empowerment of women: it frees up women's time, supports women's livelihoods and provides women with non-traditional job opportunities in the sector.¹⁶⁵

As renewable energy projects represent effective ways that can mitigate the effects of climate change, the next paragraph aims to provide just a few contemporary examples of projects in different areas of the world, in which women embrace their role as change-makers. The initiatives chosen include the Solar Mamas' programme in India and Solar Sisters in Africa.

3.6. Women as agents of change in mitigation projects

The first project that addresses gender and renewable energy is the Solar Mamas' programme. The initiative has been developed by the Barefoot College (BC), an NGO established in India that for more than 40 years dedicates its work to community development and women's empowerment.¹⁶⁶ As many scholars pointed out, the Solar Mamas' programme represents a great model of development intervention, in which women are empowered and trained to promote sustainable and clean energy while advancing transformative teaching methods and radical change in the field of mitigation. The vision of the project is to transfer important skills and knowledge to rural women, who do not have any education background, on how to install and maintain solar technology. The Solar Programme itself is defined as a programme that promotes self-sufficiency, livelihood development, and environmental sustainability, while empowering women to become agents of change within their communities. In fact, the project targets several goals included in the 2030 Agenda for Sustainable Development, namely Goal 1 (no poverty), Goal 5 (gender equality), Goal 7 (affordable and clean energy), Goal 8 (decent work and economic growth), Goal 10 (reduced inequalities), Goal 12 (responsible consumption and production) and of course Goal 13 (climate action). So far, the Solar Programme is very successful as it has trained around 3,500 rural women in 93 countries and provided more than 2.5 million people with access to light.¹⁶⁷ The Solar Programme also comprehend a sub-initiative called 'Enriche' that put at the centre three key concepts: education, enterprise and empowerment. Enriche is defined as a program that 'supports women's aspiration to transform themselves and their communities. It provides them with the opportunity to embark on an empowerment journey; a journey to gain the confidence,

¹⁶⁵ UNDP Climate, '3 ways Clean Energy is a game-changer for women', March 7th, 2023, <https://undp-climate.exposure.co/3-ways-clean-energy-is-a-gamechanger-for-women>, (accessed May 29, 2023).

¹⁶⁶ Giulia M. Mininni, "The Barefoot College 'Eco-Village' Approach to Women's Entrepreneurship in Energy," *Environmental Innovation and Societal Transitions* 42 (2022): 112–23, <https://doi.org/10.1016/j.eist.2021.12.002.114>.

¹⁶⁷ Barefoot College, 'Solar: Barefoot College International,' <https://www.barefootcollege.org/solution/solar/> (accessed May 30, 2023).

skills and knowledge they need to reach their full potential as agents of sustainable change and to support their entrepreneurial aspirations.’¹⁶⁸ Through the implementation of these programmes, activities such as solar installation and maintenance undergo an engendering process in which they become no longer male-dominated.¹⁶⁹ As regards the project’s functioning, after the training some of the solar mamas become Solar Teachers (STs) or ‘master trainers’, whose main role is to teach the next group of solar mamas. The Barefoot College provides for the salary of the participants and the STs, while it is the partner organisations of the BC that support solar women engineers in installation projects in their villages.¹⁷⁰ The Solar Programme developed by the BC owes its success to its post-implementation efforts, which focus on monitoring and implementation actions that end up benefiting the rural poor, as well as the preservation of the land that prevents eventual displacement or deforestation. Moreover, thanks to decisive efforts at the implementation level, the programme brings out women’s effective capacities in various domains and makes them more participative in both the political and economic spheres.¹⁷¹

The second programme, still in the field of solar energy, is called Solar Sister and started operating in October 2009 in the communities across Uganda, Rwanda, South Sudan. The UNFCCC describes the programme as ‘an innovative social enterprise with the mission to achieve sustainable, scalable impact at the nexus of women's empowerment, energy poverty and climate change.’¹⁷² Initially, the programme was started by ten women entrepreneurs in Uganda, until it expanded to more than 8500 Solar Sisters entrepreneurs between Uganda, Rwanda and South Sudan. The Solar Sister programme is the only organisation in Africa that has launched the vision of creating a network of women entrepreneurs based on the premise that investment in women is crucial for a just transition to clean energy technology. What makes the programme truly unique is the combination of a gendered and inclusive approach with a model that prioritises the growth of women-led businesses to tackle energy poverty in Africa.

In terms of mitigation benefits, the Solar Sister project proves to be highly efficient: it estimates to mitigate about 1.5 tonnes of CO₂ through the installation of solar lanterns, which each one manages to avoid the use of more than 600 litres of kerosene in the first 10 years period.¹⁷³

¹⁶⁸ Barefoot College, ‘Enriche: Barefoot College International’, December 16, 2021, <https://www.barefootcollege.org/solution/enriche/> (accessed May 30, 2023).

¹⁶⁹ Kavya Michael et al., “A Two-Step Approach to Integrating Gender Justice into Mitigation Policy: Examples from India,” 808.

¹⁷⁰ Giulia M. Mininni, “The Barefoot College ‘Eco-Village’ Approach to Women’s Entrepreneurship in Energy,” 114.

¹⁷¹ Kavya Michael et al., “A Two-Step Approach to Integrating Gender Justice into Mitigation Policy: Examples from India,” 808.

¹⁷² UNFCCC, ‘Solar Sister: Uganda, Rwanda, South Sudan,’ <https://unfccc.int/climate-action/momentum-for-change/lighthouse-activities/solar-sister> (accessed May 31, 2023).

¹⁷³ Ibid.

Environmentally, the programme has so far avoided over 900,000 tonnes of CO₂, replaced 335,000 kerosene lamps with solar lights and installed cookstoves that reduce fuel usage by more than 50%.¹⁷⁴ At the same time, solar lanterns are optimal for removing black soot, a residue generated from the combustion of fueled carbon, which scientist experts demonstrated to be harmful to the environment and contributes to climate change. Finally, solar energy is optimal for power generation and charging various products, such as mobile phones, making it a better choice in terms of air quality and public health.¹⁷⁵

Moreover, the programme intends to replicate its model in various parts of Africa to drive real sustainable innovation in renewable energy. In fact, Solar Sisters' impact in countries such as Nigeria and Tanzania has reached more than 1 and 2 million people respectively, reaching a total of 3.516.348 by 2022.¹⁷⁶ For instance, the programme has made several partnerships with many African organisations on the ground that support the mission of Solar Sisters: in both Kenya and Tanzania it finalised a Memorandum of Understanding with the African Wildlife Foundation (AWF), in Kenya it took part in the 'Green Belt Movement' organisation of Dr. Wangari Maathai, who is Africa's first Nobel Prize winner for her work in environmentalism, and in Nigeria, it has partnered with SOSAI renewable energy company and Azsa Microfinance Bank Ltd.¹⁷⁷

As the Solar Mamas programme, Solar Sisters dispose of exhaustive mechanisms that empower, support and train women to start a business, giving the greater challenges in remote areas and communities. Solar Sisters are first equipped with a 'Business Bag' which means they are provided with the essential tools needed to start running a business, that includes:

- Rugged Solar Sister branded shoulder bag
- Solar Sister branded t-shirt and hijab
- Receipt book
- Accounting purse
- Product brochures / site sellers with specs and images

¹⁷⁴ Solar Sister, 'Our Impact', January 19, 2023, <https://solarsister.org/what-we-do/our-impact/> (accessed May 31, 2023).

¹⁷⁵ UNFCCC, 'Solar Sister: Uganda, Rwanda, South Sudan,' <https://unfccc.int/climate-action/momentum-for-change/lighthouse-activities/solar-sister> (accessed May 31, 2023).

¹⁷⁶ Solar Sister, 'Our Impact'. January 19, 2023, <https://solarsister.org/what-we-do/our-impact/> (accessed May 31, 2023).

¹⁷⁷ UNFCCC, 'Solar Sister: Uganda, Rwanda, South Sudan,' January 19, 2023, <https://solarsister.org/what-we-do/our-impact/> (accessed May 31, 2023).

- Branded posters and stickers ¹⁷⁸

The second part of the programme is dedicated to training and lasts one year, in which participants learn how to initiate a clean energy business and put in practice the necessary skills, such as: ‘networking, marketing, and record-keeping. And also, life skills such as leadership and goal-setting.’¹⁷⁹ The final stage of the programme, as the one of the BC, gives much relevance to mentoring, particularly crucial for the development and growth of businesses to provide ‘mentors’ that follow entrepreneurs once their training is over. The monitoring part includes different and simple forms, from phone calls to practical advice given by the Business Development Associates, who is the group responsible for distributing clean energy products to the communities.¹⁸⁰

Such examples of Solar Mamas and Solar Sisters enhance and promote women’s capabilities in the renewable energy area, demonstrating that efforts to address climate change and reduce GHGs emissions can also serve as opportunities to implement gender mainstreaming.

¹⁷⁸ Solar Sisters, ‘*Women’s Economic Empowerment*’, September 22, 2021, <https://solarsister.org/what-we-do/our-model/womens-economic-empowerment/> (accessed May 31, 2023).

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

Conclusion

The research has shown that human rights and gender considerations are increasingly included in policies and strategies to mitigate and adapt to climate change, both at international and regional level. The incorporation of such approaches has particularly expanded since the launch of the Paris Agreement, which for the first time mainstreamed the language of human rights to address the global problem of climate change.

The research further highlights that while the human rights perspective has been extensively discussed, the gender perspective, in relation to climate change, has received comparatively less attention until recent years. The limited research on gender and climate change has served as a catalyst for further analysis and the exploration of this relationship in greater depth.

The analysis of climate change litigation cases highlights the existing shortcomings in acknowledging the accountability of states and private actors for human rights infringements, particularly in relation to women and future generations. International and regional tribunals have so far demonstrated limited effectiveness in addressing this responsibility adequately. However, promising instances within domestic courts offer hope for enhanced responsibility of individuals and entities responsible for both direct and indirect human rights violations in the context of climate change.

The thesis aimed to contribute to climate change governance in several ways. First of all, it tried to address pressing global challenges such as climate change by integrating an inclusive approach, namely the human rights and gender-based approach. The thesis tackles this complex issue comprehensively, considering that climate change poses threats to the environment, societies, and human rights. Furthermore, the thesis recognises the unequal distribution of climate change impacts and emphasises the importance of addressing vulnerabilities. It aims to ensure that responses to climate change are inclusive, equitable, and fair, giving voice to marginalised groups. Lastly, the thesis promotes and advances interdisciplinary understanding because interconnects fields of law, human rights, and gender studies.

The ultimate purposes of the research are fostering new perspectives and potential solutions, as well as guiding policies and actions. The analysis that has been carried out can provide valuable insights and recommendations for policymakers, practitioners, and organisations involved in climate change mitigation adaptation efforts. It provides a framework for integrating human rights and gender considerations into policy development and decision-

making processes. Overall, the thesis relevance lies in implementing a more effective response to the multifaceted challenges of climate change.

To quote the remarks of António Guterres at the last COP27:

‘We need all hands on deck for faster, bolder climate action. A window of opportunity remains open, but only a narrow shaft of light remains. The global climate fight will be won or lost in this crucial decade – on our watch. One thing is certain: those that give up are sure to lose. So let’s fight together– and let’s win. For the 8 billion members of our human family – and for generations to come.’¹⁸¹

¹⁸¹ United Nations, *Secretary-General's remarks to High-Level opening of COP27*, November 7, 2022, <https://www.un.org/sg/en/content/sg/speeches/2022-11-07/secretary-generals-remarks-high-level-opening-of-cop27> (accessed July 1, 2023).

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