



Centre for
**Global
Cooperation
Research**

Moumita Mandal

The Role of Climate Change in Exacerbating Sexual and Gender-Based Violence in International Law: In Search of a Solution



Global Cooperation Research Papers 35

Editorial Board

Katja Freistein
Frank Gädinger
Patricia Rinck
Nina Schneider
Christine Unrau

Editorial Office

Patricia Rinck

Käte Hamburger Kolleg / Centre for Global Cooperation Research (KHK/GCR21)

Board of Directors

Sigrid Quack
Tobias Debiel
Dirk Messner
Jan Aart Scholte

Executive Director

Matthias Schuler

Schifferstr. 44
47059 Duisburg
Germany
Tel: +49(0)203 379-5230
Fax: +49(0)203-379-5276
E-Mail: info@gcr21.uni-due.de
Internet: www.gcr21.org

*A Central Research Institute of the
University of Duisburg-Essen*



SPONSORED BY THE



Federal Ministry
of Education
and Research

Licence: Creative Commons Attribution-
NoDerivatives 4.0

No Derivative Works

You may not alter, transform, or build upon
this work.

Notice

For any reuse or distribution, you must make
clear to others the license terms of this work.
The best way to do this is with a link to this
web page: www.gcr21.org/publications.



Global Cooperation Research Papers are
available online.

To learn more about the Käte Hamburger
Kolleg / Centre for Global Cooperation
Research, please visit www.gcr21.org.

DuEPublico

All issues are permanently archived at the
University of Duisburg-Essen's open-access
repository: <http://duepublico.uni-duisburg-essen.de>.

Printed by UDZ, Duisburg

© Duisburg 2023

Copyright is held by the contributing authors.

ISSN: 2198-1949 (Print)

ISSN: 2198-0411 (Online)

DOI: 10.14282/2198-0411-GCRP-35

The Role of Climate Change in Exacerbating Sexual and Gender-Based Violence in International Law: In Search of a Solution

Moumita Mandal

Table of Contents

1. Introduction.....	1–2.
1.1. <i>Research questions</i>	
1.2. <i>Methodology</i>	
2. The causal relationship between climate change and SGBV.....	2–3.
3. Existing international legal instruments.....	4–15.
3.1. <i>The international law on the protection of women’s human rights and climate change</i>	
3.2. <i>United Nations resolutions</i>	
3.3. <i>Reports of the Special Rapporteurs</i>	
4. Possible solutions.....	15–21.
4.1. <i>Specific international law</i>	
4.2. <i>The need for global cooperation under the one Umbrella Intuition.</i>	
4.3. <i>The use of AI as a solution provider</i>	
4.4. <i>A change in mentality: The participation of men and boys</i>	
4.5. <i>The participation of women</i>	
5. Conclusion.....	21–22.
References.....	23–28.
Abstract, about the author.....	29.

Keywords: Climate change, sexual and gender-based violence, international law, possible solutions.

Figures

Figure 1: Shows the changing status of women and applicable International Law based on the effect of climate change

Figure 2: Shows possible solutions to end SGBV highlighted in the text of International Law, UN resolutions, Reports of the SRs, and so on

Figure 3: Model of Global Cooperation to end climate-induced SGBV against Women

Figure 4: Participation of women and girls to end SGBV due to climate change

Tables

Table 1: International Laws that address climate-induced SGBV

Table 2: The UNGA deal with SGBV due to Climate Change

Table 3: Reports of the SRs that address climate-induced SGBV

Abbreviations

CEDAW Committee – The Committee on the Elimination of Discrimination Against Women

CEDAW – The Convention on the Elimination of All Forms of Discrimination Against Women

GR – General Recommendation

HRC – Human Rights Council

IHL-International Humanitarian Law

SC – Security Council

SGBV – Sexual and Gender-Based Violence

SR – Special Rapporteur

UN – The United Nations

UNFCCC – The United Nations Framework Convention on Climate Change

UNGA – The United Nations General Assembly

The Role of Climate Change in Exacerbating Sexual and Gender-Based Violence in International Law: In Search of a Solution

1. Introduction

Climate change generally means long-term shifts in temperatures and weather patterns. Human activities are the main drive of climate change, causing the earth's temperature and natural environment to lose balance. Natural calamities like floods, drought, forest fires, melting polar ice, water scarcity, severe fires, catastrophic storms, declining biodiversity, rising sea levels, environmental pollution, scarcity of natural resources, etc are the result of climate change (UN n.d.). Climate change affects our health, ability to grow food, property, house, safety, and work. These have a close connection with sexual and gender-based violence (SGBV) especially against women. Women play a wide range of roles such as users, managers, and stewards of the land and its resources, as leaders, or environmentalists committed to protecting the environment and nature. Unfortunately, SGBV is being used against women and girls in the context of climate change, for example through the control and management of increasingly scarce natural resources (UN Women 2023). This study focusses on the analysis of the solutions, suggestions, and recommendations provided in different binding and non-binding international instruments.

1

1.1. Research questions

This study seeks answers to some of the key questions about the relationship between SGBV and climate change and outlines possible solutions. The questions are: What is the causal relationship between climate change and sexual and gender-based violence against women? Is there any specific law dealing with SGBV due to climate change? What are the existing legal mechanisms that address the issue and how? Is there any possible solution provided by the different international legal instruments?

1.2. Methodology

This study is based on an analytical and doctrinal legal research methodology. To answer the posed questions, the study relies on both primary and secondary sources. The primary sources consist of the corpus of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the United Nations Framework Convention on Climate Change (UNFCCC), other international treaties, declarations, resolutions, and reports of the United Nations (UN) that deal with the challenge of SGBV against women.

Secondary sources include books, articles, and relevant website materials, etc. Additionally, this paper contains recommendations and suggestions based on the report of the workshop on ‘Climate change and gender-based violence’ organized by the Centre for Global Cooperation Research on 25 September 2023.

2. The causal relationship between climate change and SGBV

In view of the lack of data, the acceptance of growing evidence, and the availability of adequate international legal mechanisms, this study has sought to put together and analyse the facts, incidents, circumstantial evidence, and processes as well as statements and decisions of the intergovernmental bodies. Therefore, the primary focus is to shed light on the interlinkages or causal relationship between climate change and SGBV against women and girls.

Climate change is rarely discussed in relation to violence against women. This link has, however, become a global challenge as it contributes to the exacerbation of SGBV. Though entire populations are affected by climate change, women and girls face double victimization as human beings as well as because of their gender. Different studies show that they are the majority of survivors. During emergencies, especially conflicts and disasters, women are at high risk of SGBV because of crises in the family and society as well as due to the sudden breakdown of family and community structures following forced displacement. As a result, women and girls become more vulnerable and face physical, sexual, and psychological harm as well as the denial of resources or necessary services (Prescott 2019).

Climate change has been causing natural calamities, as well as people losing their land, houses, and property and being displaced and forced to migrate to other places either within the country or across international borders. Thus, they become internally displaced people, refugees, or illegal immigrants. The UN Environment Programme estimates that 80 per cent of the people displaced due to climate change are women. When women are displaced, they are at greater risk of SGBV, according to Michelle Bachelet, UN High Commissioner for Human Rights:

“While they sleep, wash, bathe or dress in emergency shelters, tents or camps, the risk of sexual violence is a tragic reality of their lives as migrants or refugees,” Bachelet said. “Compounding this is the increased danger of human trafficking, and child, early and forced marriage which women and girls on the move endure.” (OHCHR 2022, para. 3)

According to Astrid Puentes Riaño, an independent consultant on human rights and climate change, ‘migration and forced displacement are among the most serious impacts of the climate

crisis that are already impacting millions of people around the world' (OHCHR 2022, para. 5). She stated that there are migrant women who suffered SGBV under the protection of the authorities too and when they went to report it, they were imprisoned instead of the perpetrators being prosecuted. Women are mostly dependent on natural resources. However, there is a growing scarcity of natural resources due to climate change and related disasters that further reinforces inequalities and leads to people fighting for control over the limited resources, resulting in women being subjected to SGBV. For example, in Kenya, 'Sex for fish' or 'Jaboya', has become a practice where women are compelled to have sex for fish that they need for their business or to feed their family (Lowen 2014). Natural disasters due to climate change lead to the loss of jobs and property and have an impact on mental health, leading to an increase in violence against women. For example, in Kenya, 75 per cent of people are dependent on agriculture for their primary income. Here, the destruction of crops, livestock, and property as well as food crises are recurring consequences of climate change (Allen, Munal, and Henderson 2021). People are stressed and alcohol consumption increases, often resulting in SGBV against women, especially domestic violence, and intimate partner violence (Ondieki, Shetty, and Balagtas See 2023). Child marriages are on the rise in Kenya as well because families are unable to provide food for their daughters; so, they prefer to get married. Between 2016 and 2019, there were 1,698 cases of SGBV against women environment and human rights defenders recorded in Mexico and Central America. Similarly, evidence for Central America shows that women who are displaced are at greater risk of violence, including sexual violence; and women who lose their jobs, e.g. women farmers, are likely to face SGBV (Gevers, Musuya, and Bukuluki 2020).

Climate change and SGBV is an overlooked connection. It simultaneously becomes a cause of new gender inequality (Soliman, Carlsson Rex, and Warren 2022; Fatema et al. 2019: 2). A link exists between a cost of living crisis and the 'drastic effects of climate change' associated with the risk of increasing violence against women, e.g. heatwaves in Spain have led to an increase in domestic violence and femicide. (European Parliament 2022). This apparent correlation between heat and violence against women has also been confirmed by scholars. Heat exacerbates stress and irritation in relationships, resulting in an elevated risk of domestic violence and femicide, particularly for immigrant women and women of low socio-economic status. Another problem is the physical and psychological violence against women who are working in wildlife conservation. Even men who are encouraging women's participation in these spheres are verbally abused by the perpetrators. Indigenous women who campaign for the protection of the environment, human rights, and action on climate change are subjected to SGBV around the world to prevent them from participating in environmental decision-making and action. They are facing attacks on their lands, their livelihoods, and their right to the environment. This excludes them from the decision-making and results in a loss of traditional knowledge (Ansede 2018).

3. Existing international legal instruments

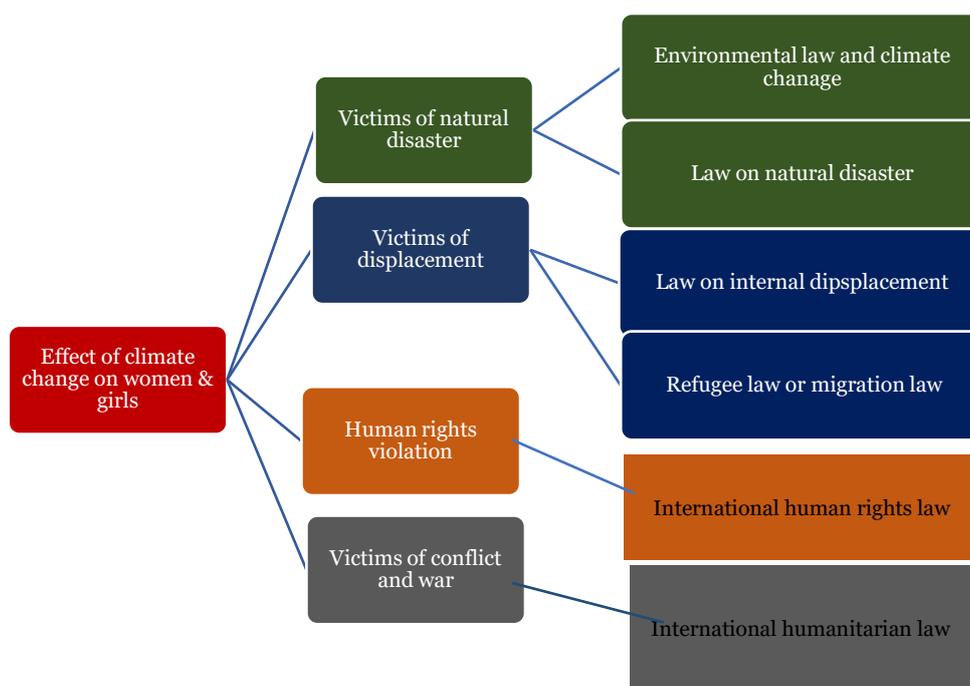
This chapter focusses on how international legal instruments and reports of the United Nations Special Rapporteurs have addressed the issues and recommended possible solutions to end SGBV due to climate change. There is no specific or *lex specialis* binding legal instrument that deals specifically with SGBV during or after climate crises or disasters. There are, however, a few instruments, mostly soft law or non-binding international law, that address the issue. The following section examines these instruments, how they address the problem, what solutions they promise, and their shortcomings that could be reformed in the future.

3.1. The international law on the protection of women’s human rights and Climate Change

There are several international treaties, both *lex specialis* and *lex generalis*, that are specifically dedicated to either climate change or the discrimination against women. Due to the consequences of climate change, the status of women and the corresponding laws are changing (see *Figure 1*).

4

Figure 1: Shows the changing status of women and applicable international law based on the effect of climate change



Source: Created by the author.

If we follow *Figure 1* above and analyse all international laws that refer to the impact of climate change on women and girls and their changing status, there are a few laws that address SGBV due to climate change, mostly indirectly. From the outset, environmental and climate change laws have not been gender sensitive. In the past, little attention was paid to issues of 'gender'. Consequently, there is a gap in the legal protection of women and the prevention of SGBV. The existing international environmental law and climate change law are silent on this specific issue. Recently the conference of the parties (COP) of the UNFCCC 1992, the Kyoto Protocol 1997, the UN Convention on Combating Desertification 1994, and the Convention on Biological Diversity 1992, paid attention to the participation of women in climate change decision-making and consideration of gender-sensitive approach (Mandal 2023).

Similarly, there is no specific binding international law on disaster management. The Sendai Framework for Disaster Risk Reduction 2015–2030, a non-binding international instrument, provides guidelines for disaster management (UNDRR n.d.). It highlights the importance of the participation of women and the consideration of gender in disaster policy making; however, it does not address the issue of SGBV specifically. The subsidiary body on the implementation of the Convention on Biological Diversity addressed the issue of SGBV against women environmental human rights defenders in the Draft Post-2020 Gender Plan of Action¹. It pledged to ‘[i]dentify and eliminate, prevent and respond, to all forms of gender-based discrimination and violence related to control, ownership and access to sustainable use and conservation of biodiversity, including protecting women environmental human rights defenders’ (The Convention on Biological Diversity 2021: 8). The recommendations include some indicative actions such as the development and use of data, tools, and strategies to understand and address gender-based violence and its link to biodiversity, paying particular attention to the protection of women human rights defenders in the environmental field to support the development and implementation of policies and programmes related to biodiversity rights. The suggested timeframe by which these measures should be implemented runs until 2026. The Gender Plan of Action also stipulates that knowledge gained on gender-based violence and biodiversity should be made available to affected parties and stakeholders. In contrast, the Convention relating to the Status of Refugees (1951) does not include climate-induced refugees and the protection of women. They are treated as either illegal immigrants or displaced people without any protection at the international level. Similarly, the protection of internally displaced persons, especially women, from SGBV is based solely on national law and policy.

¹ ‘The plan further recognizes that the term “gender” encompasses all those who identify as women and girls, boys and men, and non-binary individuals’ (The Convention on Biological Diversity 2021: 1; see also UNFCCC 2020: 6).

It has already been discussed that climate change is one of the reasons for the crisis of natural resources, land degradation, and food and water scarcities; as a consequence, conflicts over the control of natural resources are emerging. At the same time, wars and conflicts are themselves one of the driving forces behind climate change, as they cause enormous CO₂ emissions. Women face SGBV as a result of both cases. The Geneva Conventions and the Optional Protocols deal with the protection of women and girls against sexual violence in conflict zones, but without drawing a connection to the issue of climate change. Also, all forms of SGBV are not mentioned. Article 27 of the Geneva Convention relative to the Protection of Civilian Persons in Time of War of 12 August 1949 provides that the parties to the conflict may take such measures of control and security in regard to protected persons. Women shall be especially protected against any attack on their honour, in particular against rape, enforced prostitution, or any form of indecent assault. The Additional Protocol I, 1977, Article 76 states that ‘women shall be the object of special respect and shall be protected in particular against rape, forced prostitution and any other form of indecent assault’ (International Committee of the Red Cross 2010: 56). However, it only applies to international armed conflicts. The Additional Protocol II, 1977, Article 4, provides that the parties to the conflict ‘shall remain prohibited at any time and in any place whatsoever- outrages upon personal dignity, in particular, humiliating and degrading treatment, rape, enforced prostitution and any form of indecent assault’. It is applicable only to non-international armed conflicts. Ironically, the limited protection against SGBV under the International Humanitarian Law is based on an outdated notion of ‘honour’. Hence, it requires specific provisions that deal with rape and other forms of sexual violence against women. The concept of ‘honour’, however, is itself a gender-biased term (Desai and Mandal 2021).

Despite its focus on gender-based discrimination, the 1979 Convention on the Elimination of All Forms of Discrimination against Women does not explicitly recognize SGBV. There are a few general recommendations (GRs 12, 19, etc.) of the Committee of CEDAW that address the issue of SGBV under the rubric of discrimination (UNGA 1979; CEDAW 1989, 1992). The CEDAW is a human rights treaty but does not specifically address SGBV or climate-induced SGBV. Recently, however, there have been a few GRs of the Committee of CEDAW that address the issue. GR 37, for example, highlights the gender-related dimensions of disaster risk reduction in the context of climate change: Because of increased forms of SGBV due to the climate crisis, women are unable or less able to adapt to changes in climatic conditions. Though climate change mitigation and adaptation programmes create opportunities especially employment opportunities in different sectors including agriculture, energy, etc. Unfortunately, these programmes failed to address the indifferent increased forms of SGBV due to climate change that creates a structural barrier for women to access these opportunities (CEDAW 2018).

Yet, there is only one paragraph that specifically focusses on the ‘right to live free from gender-based violence against women and girls’. By referring to GR 35 it has mentioned that disaster and degradation and destruction of natural resources are the factors that ‘affected and exacerbated gender-based violence (GBV) against women and girls’ (CEDAW 2018: 16, 17). It is also stated that ‘sexual violence’ is common in humanitarian crises and may become acute during disaster as it heightens stress, lawlessness, and homelessness. It has given recommendations for the States that are not binding. First, to develop policies and programmes which aim to address all existing and emerging forms of GBV that are the direct and indirect result of climate change and disasters and to promote the participation and leadership of women in disaster risk reduction as well as climate change mitigation and adaptation. Therefore, it should be recognized and accepted at all levels that women and girls are increasingly confronted with forms of GBV in addition to all other consequences of the climate crisis. No other gender is facing these distinct effects of the climate crisis. Second, the CEDAW advocates that the signatories should ensure 18 years as the minimum legal age for marriage, to stop child and forced marriage which are some of the forms of GBV that on the rise are due to the climate crisis. Therefore, proper training should be given to all personnel involved in disaster response activities regarding the prevalence of forced and early marriage. For this, partnerships should be created with women’s associations and other stakeholders; additionally, mechanisms should be established within local and regional disaster management plans to prevent, monitor, and address the problem. Third, the survivors should be provided with accessible, confidential, supportive, and effective mechanisms to report their sufferings. Fourth, programmes relating to disaster risk reduction and climate change ought to include a system for ‘regular monitoring, evaluation of interventions designed to prevent and respond to gender-based violence’ (CEDAW 2018: 16, 17). Fourth, personnel should be trained in sensitization and awareness of GBV across all authorities, emergency services, and other groups involved in disaster prevention and response. The training should emphasize the rights and needs of women, with a particular focus on indigenous women, women with disabilities, women from minorities, and LGBTIAQ+ women. Fifth, there is a need to adopt long-term policies and strategies to address the root causes of GBV in situations of disaster that should include and engage men and boys, the media, traditional and religious leaders, and educational institutions to eliminate GBV and social and cultural stereotypes relating to the status of women. These recommendations are not specific to SGBV rather in general they are also useful.

The women and girls can be categorized who are subjected to these specific forms of SGBV due to climate crisis e.g.

women living in poverty, indigenous women, women belonging to ethnic, racial, religious, and sexual minority groups, women with disabilities, refugee and asylum-seeking women, internally displaced, stateless and migrant women, rural women, unmarried women, adolescents, and older women, who are often disproportionately affected compared with men or other women (CEDAW 2018: 2).

Women's participation should be ensured at all levels of decision-making relating to climate change as well as all other policies and laws that are the result of climate change e.g. laws concerned with refugees as well as internally displaced people, human rights, and wars or conflicts. It has already been identified that disasters, displacements, wars or conflicts, and human rights violations are among the consequences of the climate crisis and the application of laws is also different. Thus, gender perspective and SGBV should be included across the areas of law in connection with climate change and SGBV. Such a reform requires a multidisciplinary initiative that first identifies the areas in need of improvement and then takes action accordingly.

GR 37 mentions that women are vulnerable, the core of the problem is not vulnerability, but ensuring the right to bodily autonomy and integrity, especially in the context of SGBV. Since women do not contribute significantly to climate change, why should they bear the costs? GR 37 refers to the COP 20 (decision 18) and COP 23 (decision 3) of the UNFCCC also known as the 'Lima Work Programme on Gender' and 'Establishment of a gender action plan' respectively and suggests 'meaningful participation of women and promote gender-responsive climate policy and the mainstreaming of a gender perspective into all elements of climate action' (CEDAW 2018: 6). It is a challenge to ensure full, equal, and meaningful participation, especially at the bottom or grassroots level.

The deliberation on gender equality should be based on intergenerational equity. The effect of SGBV is perpetual and can be stopped only by considering the intergeneration equity approach. The GR 37 suggests three principles 'equality and non-discrimination, participation and empowerment, accountability and access to justice are fundamental to ensuring that all interventions relating to disaster risk reduction in the context of climate change are implemented in accordance with the Convention' (CEDAW 2018: 7–8). Though SGBV is analysed under the shed of non-discrimination, hence, it reduces the effectiveness and importance of ending SGBV (Desai and Mandal 2022).

GR 38 (CEDAW 2020) 'Trafficking in women and girls in the context of global migration' addresses that trafficking and other forms of SGBV are often exacerbated during disasters. States Parties cannot exempt themselves from the obligation in the context of a state emergency. There is a need to address how displaced women and girls are subjected to SGBV. The solutions that are generally provided for human trafficking also apply to

climate change and disasters. These require the identification of victims; training of staff; the establishment of shelters for refugee women and girls; more female officials; the adoption of the principle of 'zero tolerance of trafficking', sexual exploitation, and forced labour; access to complaints procedures and legal remedies; the use of digital technologies, e.g. artificial intelligence (AI), especially for the analysis of social media data, public awareness; the protection of victims' rights; the right to information on rights and legal assistance; and institutional frameworks. States parties are encouraged to ratify the existing international treaties relating to the prevention and suppression of trafficking and discrimination against women. The GR 39 (CEDAW 2022) on the rights of indigenous women and girls provides that indigenous women environmental human rights defenders face harassment and SGBV. Thus, States Parties have obligations to take measures without delay to protect these women against SGBV.

Table 1: International laws that address climate-induced SGBV

Srl. n.	Treaties	Solutions	Challenges
Violation of human rights against women			
1.	General Recommendation 37	Right to live and free from gender-based violence against women and girls.	Non-binding instrument.
9			
2.	General Recommendation 38	The obligations of States Parties to stop SGBV do not cease in the context of states of emergency.	Non-binding instrument.
3.	General Recommendation 39	Ensure that state actors and business enterprises take measures without delay including the prevention of all forms of violence against indigenous women who are environmental human rights defenders and their communities and territories.	Non-binding instrument.
International environmental law and climate change			
1.	The Convention on Biological Diversity: Draft Post-2020 Gender Plan of Action	Identify, eliminate, and respond to all forms of gender-based discrimination and violence relating to control, ownership, and sustainable conservation of biodiversity, including protecting women environmental human rights defenders.	Non-binding instrument.

Source: Created by the author.

3.2. United Nations resolutions

The UN General Assembly (UNGA) and Security Council (SC) adopted a series of resolutions (Res.) for the protection of women and girls against SGBV. These resolutions – e.g., UNGA Res. 67/144 (2012), SC Res. 2467 (2019), 2331 (2016), 1325 (2000) – mainly deal with SGBV during times of peace or conflicts (UN Women n.d.; UN Peacemaker n.d.); they do not address the specific issue of SGBV due to climate change. Thus, these can be used as a guideline but are not most suitable for linking SGBV and climate change or conflict, climate change and SGBV.

There are a few resolutions that could establish such a link between climate change and SGBV, e.g. UNGA (2023a) Res. 77/202 (adopted on 15 December 2022), which explains that climate change is one of the root causes of child, early, and forced marriage and female genital mutilation. These are specific forms of SGBV against girls. The resolution urges states to recognize and promote awareness of the disproportionate and distinct effects of climate change, environmental degradation, and disasters on women and girls. It calls on them to take targeted action to strengthen the resilience and adaptive capacities of all women and girls. A comprehensive, rights-based, age- and gender-sensitive, survivor-centred, and cross-sectoral approach that takes into account the interlinkages must be pursued. Furthermore, the specific needs of all women and girls must be prioritized.

UNGA (2022c) Res. 77/194 on ‘trafficking in women and girls’ addresses that climate change has heightened the risk of trafficking of women and girls. There is a need to fully and effectively implement the relevant provisions of the United Nations Global Plan of Action to Combat Trafficking in Persons. It urges governments to devise, enforce, and strengthen effective gender-responsive and age-sensitive provisions, and take preventive actions, including legislative measures. All forms of trafficking should be criminalized, and it encourages governments to fulfill their obligations under international law to prevent, combat, and eradicate trafficking in persons. Law enforcement officers, border control officers, and medical staff ought to be trained on how to recognize possible cases of human trafficking. While this resolution identifies measures that should be generally applicable, it does not identify specific measures for climate change or disaster-related trafficking.

UNGA (2022a) Res. 77/193 on ‘intensification of efforts to prevent and eliminate all forms of violence against women and girls: gender stereotypes and negative social norms’ is particularly relevant for developing countries and girls and women of small islands. They are ‘disproportionately affected by the adverse effect of climate change, environment degradation, biodiversity loss, extreme weather and natural disaster and other environment issues as these may exacerbate existing structural inequalities as well as violence against women and girls and harmful practices’ e.g. forced marriage and female genital mutilation (UNGA 2022a: 6).

All the above resolutions indicate that there is a lack of sufficient data and evidence on the impact of climate change and environmental degradation on violence against women and girls. The negative impact of climate change needs to be comprehensively assessed. While general solutions have been provided in the form of recommendations, no specific solutions have been identified in relation to the role of climate change in exacerbating SGBV. The resolutions urge states to take comprehensive, multisectoral, coordinated, effective, and gender-responsive measures to prevent and eliminate all forms of violence and to address structural and underlying causes and risk factors, engaging, educating, encouraging, and supporting men and boys to be positive role models for gender equality and to promote respectful relationships. States are called upon to take immediate and effective action and ensure legislation that enables the prevention, investigation, and prosecution of perpetrators. All barriers to women’s access to justice and accountability mechanisms should be removed, while victim-centred legal protection should be ensured. Furthermore, states ought to systematically collect analyse and disseminate data in disaggregated form (see *Table 2.*).

Table 2: The UNGA resolutions dealing with SGBV due to climate change.

Srl. n.	Resolutions	Problem	Solutions	Challenges
1	UNGA Res. 77/202. Child, early and forced marriage (UNGA 2023a)	Climate change is among the root causes of child, early, and forced marriage, and female genital mutilation.	Take targeted action to strengthen the resilience and adaptive capacities of all women and girls. Comprehensive, rights-based, age- and gender-responsive, survivor-centred, and multi-sectoral approach. particular attention to the specific needs of all women.	Non-binding instrument
2.	UNGA Res. 77/194. Trafficking in women and girls (UNGA 2022c)	The heightened risk of trafficking of women and girls is a result from the adverse impacts of climate change.	Fully and effectively implement the relevant provisions of the United Nations Global Plan of Action to Combat Trafficking in Persons. Gender-responsive and age-sensitive measures. Preventive actions, including legislative measures. Criminalize all forms of trafficking. Encourages governments, in line with their obligations under international law. Training for law enforcement and border control officials, as well as medical personnel. Systematic collection of disaggregated data.	Non-binding instrument
3.	UNGA Res. 77/193. Intensification of efforts to	Climate change and SGBV	Take comprehensive, multi-sectoral, coordinated, effective, and gender-responsive measures. Engaging, educating, encouraging,	Non-binding

	<p>prevent and eliminate all forms of violence against women and girls: gender stereotypes and negative social norms (UNGA 2022a)</p>		<p>and supporting men and boys to be positive role models for gender equality and to promote respectful relationships. Take immediate and effective action. Ensuring legislation to prevent, investigate, prosecute, and hold to account the perpetrators. Removing all barriers to women's access to justice and accountability mechanisms. Victim-centred legal protection. Systematically collect, analyse, and disseminate data disaggregated.</p>	<p>instrument</p>
--	---	--	--	-------------------

Source: Created by the author.

In addition to the UNGA resolutions, the Human Rights Council (HRC)² has adopted a series of resolutions on human rights and climate change (HRC n.d.). A few of the resolutions address the issues of SGBV and climate change. By adopting these resolutions, the Human Rights Council has tried to emphasize the links between human rights issues and climate change. They clarify how climate change affects the human rights of all people, including women. While these resolutions, e.g. 50/9 (July 2022), do not address the issue of SGBV in the context of climate change specifically, they recognize that women and girls may be disproportionately affected by the effect of climate change. Thus, they conclude that there is a need for full and effective participation of women and girls in climate action and studies on gender-responsive climate action. However, these resolutions only approach the issue of gender in the context of individual vulnerability based on gender factors.³

3.3. Reports of the Special Rapporteurs

The Special Procedure of the HRC consists of a group of independent human rights experts with mandates to report and advice on the issue of human rights protection from a thematic or country-specific perspective (OHCHR n.d.a). The Special Rapporteur (SR) on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy, and sustainable environment was appointed by the HRC's resolution 19/10 in 2012 (OHCHR n.d.b). Although the SR's reports addressed the vulnerability of women and girls and their role in climate and human rights policy, they, again, did not specifically recognize the issue of climate-induced SGBV.

² Examples: HRC Res. 50/9 (July 2022); 47/24 (July 2021); 44/7 (July 2020); 42/21 (July 2019); 38/4 (July 2018); 35/20 (July 2017); 32/33 (July 2016); 29/15 (July 2015); 26/27 (July 2014); 18/22 (September 2011); 10/4 (March 2009); 7/23 (March 2008).²(50/9 to 32/33)

³Examples: 16/11 (2011), 19/10 (2012), 25/21 (2014), 28/11 (2015), 31/8 (2016), 34/20 (2017), 37/8 (2018), 46/7 (2021) and 48/13 (2021).

Recently, the SR on human rights and environment, David R. Boyd's report 'Women, Girls and the Right to a Healthy Environment: Good practices' (UNGA 2023b) mentioned the unique suffering of women caused by climate change, which, as triple planetary crises (climate change, biodiversity, and pollution), is the greatest obstacle to the realization of the sustainable development goals (International Union for Conservation of Nature 2023). David R. Boyd's report addressed that women and girls bear the brunt of the triple planetary crisis and are mostly excluded from environment and climate change decision-making processes.

The triple planetary crisis, combined with systemic gender-based discrimination, patriarchal norms and inequality, is imposing distinct and disproportionate harms on women and girls, threatening and violating their human rights, including the right to a clean, healthy and sustainable environment (HRC 2023: 1).

The focus of the report is to ensure that women and girls can fully enjoy their right to a clean, healthy, and sustainable environment as well as to empower women and highlight the existing discrimination against women in connection with climate change. While stating these objectives, the SR addresses the issue of SGBV and climate change. It is highlighted that:

13

[...] the lack of gender- and sex-disaggregated data regarding many environmental issues renders women, girls and their needs invisible to policymakers [...]. For example, in 2021 only 22 per cent of States included data disaggregated by sex in their nationally determined contributions under the Paris Agreement (HRC: 4).

Additionally, the report discusses the nexus between disaster and conflict, for example, 'the dramatic shrinking of Lake Chad and land degradation caused by overuse is causing conflict between pastoral herders and farmers in Cameroon, Chad, the Niger, and Nigeria, increasing risks of food insecurity and violence for women and girls' (HRC 2023: 10). Migrant, displaced, refugee women, indigenous women, environment defenders, and women farmers mostly face SGBV during climate-induced conflicts. Boyd's report stresses:

The climate, pollution, and biodiversity crises worsen poverty, increase stress and fuel violence against women and girls, including physical, psychological, domestic and sexual violence, child marriage, and sex trafficking. Increased domestic and sexual violence have been reported after hurricanes, cyclones, heat waves, and bushfires (HRC 2023:12).

Climate crisis also contributes to ‘economic violence’ against women e.g. deprived women to inherit, ownership rights that lead to SGBV against women e.g. floods, droughts, etc. resulting in ‘witch killings’, child marriage, preferential feeding of male children, and grabbing of land and natural resources. There are so many recommendations provided by the SR but a few are most important as there should be the elimination of all forms of SGBV during all times of peace, conflict, and post-conflict situations and equal participation of women in all decision-making processes including climate change.

In 2022, Reem Alsalem the SR on violence against women and girls, its causes and consequences submitted a report highlighting violence against women and girls in the context of the climate crisis, including environmental degradation and related disaster risk mitigation and response (UNGA 2022b). The report states that climate change and biodiversity loss aggravate all types of SGBV. Climate crisis and the aftermaths of environmental disasters force women and girls into sexual exploitation in exchange for food, water, etc. A few forms of SGBV are mostly visible under such circumstances, e.g. sexual violence, economic violence, physical violence, and cultural violence. Alsalem’s report furthermore highlights that the existing climate change mitigation, adaptation, and financing is gender biased, thus, the report concludes that women ‘s issues should take centre stage when approaching those problems. Consequently, gender should be considered in all climate policies and the participation of women in climate governance processes ought to be promoted. The report calls on all stakeholders to strengthen and address the nexus between climate change and SGBV and to prioritize a gender-responsive and institutional framework on SGBV when combating climate change (see *Table 3*).

Table 3: Reports of the SRs that address climate-induced SGBV.

Srl. n.	SRs	Problems identified	Solutions suggested	Challenges
1.	2023, Women, girls and the right to a clean, healthy and sustainable environment Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of	Triple planetary crisis – combined with systemic gender-based discrimination, patriarchal norms, and inequality – is imposing distinct and disproportionate harm on women and girls.	States must: Tackle gender-based discrimination and environmental injustices with urgent, gender transformative, rights-based climate and environmental action. Eliminate environmental violence and all other forms of gender-based violence exacerbated by environmental harm. Demonstrate zero tolerance for violence against women and girls by preventing, investigating, and punishing all forms of gender-based violence.	Non-binding instrument.

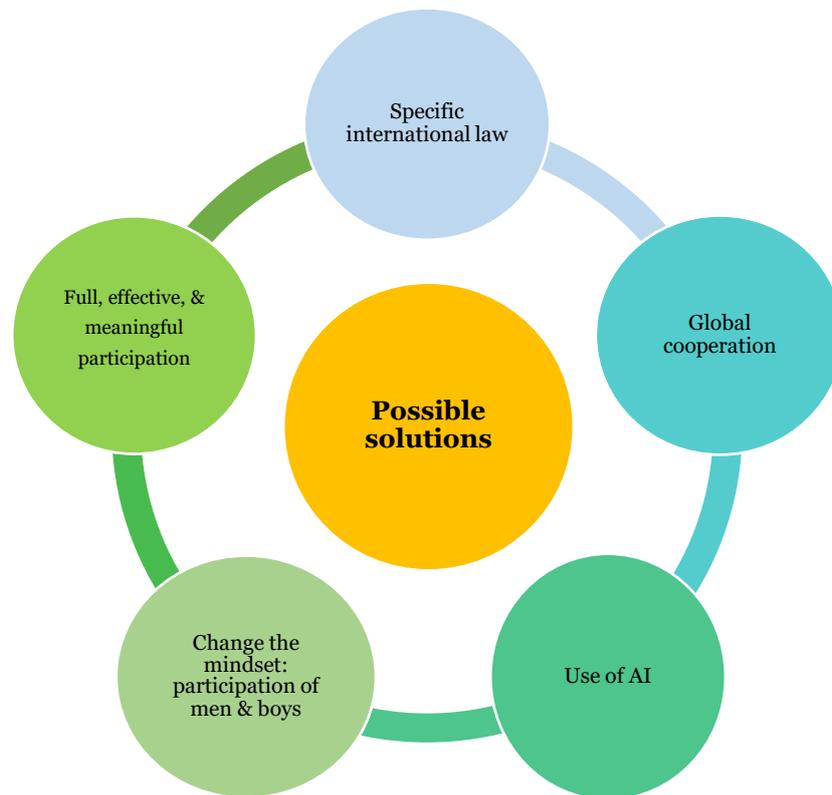
	a safe, clean, healthy and sustainable environment, David R. Boyd		Accelerate gender-transformative, rights-based climate and environmental action. Prioritize human rights and gender equality in nationally determined contributions	
2.	2022, Special Rapporteur on violence against women and girls, its causes and consequences, Reem Al-salem: Violence against women and girls in the context of the climate crisis, including environmental degradation and related disaster risk mitigation and response	Evidence suggests that climate change and biodiversity loss aggravate all types of gender-based violence against women and girls.	Gender should be considered in all policies relating to climate change. Participation of women and girls in governance processes on climate change. Gender-responsive legal and institutional frameworks on gender-based violence need to be established, including when combating climate change. All stakeholders should strengthen their understanding of the nexus between violence against women, conflict, and climate change by examining the women and peace and security agenda.	Non-binding instrument.

Source: Created by the author.

4. Possible solutions

As demonstrated, there are many approaches to countering SGBV in the age of climate change, which have also been reflected in the form of recommendations, guidelines, or suggestions from various international bodies, organizations, and agencies. Now, the following section aims to identify the best possible solutions. (see *Figure 2*).

Figure 2: Outlines of possible solutions to end SGBV based on international law, UN resolutions, SR reports, etc.



Source: The figure was created by the author.

4.1. Specific international law

There is a need for *lex specialis* or subject-specific international law that deals specifically with all forms of SGBV. Moreover, the interpretation of SGBV would not be in the shadow of any other concept such as ‘discrimination’ or ‘honour’ as stated under the human rights law e.g. the CEDAW or International Humanitarian Law. It would have to confront SGBV during peace, conflict, and post-conflict situations, including the climate crisis or disasters. The specific law should ideally address challenges, problems, or gaps that persist in other areas of international law, e.g. laws dealing with climate change and disaster. Only looking at one area of international law will not change the gaps or whole scenarios that already exist. The specific law would be a guideline for adopting and reforming regional and national laws around the world. No discrepancies between legal and political language should exist to end SGBV (Mandal 2023).

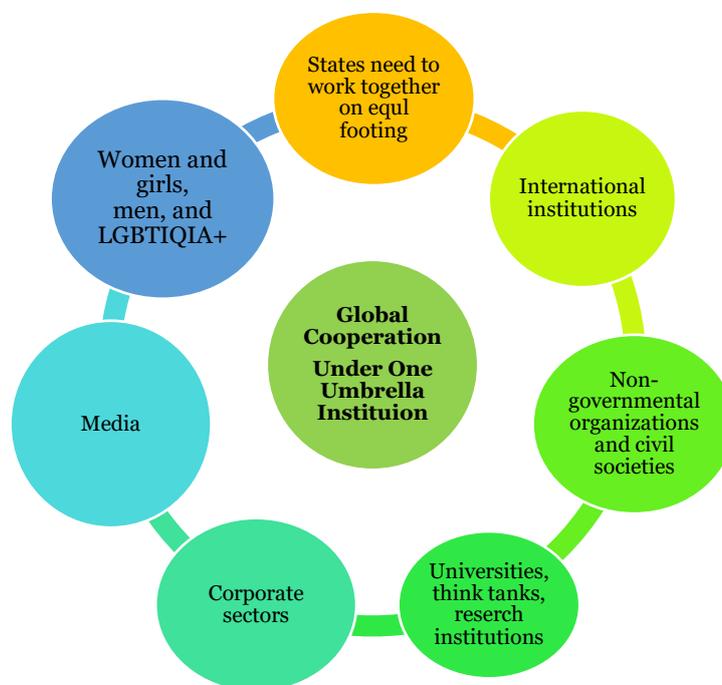
There should not be ambiguities regarding the use of terminologies as has been addressed previously. Sometimes SGBV is termed ‘violence against women’, others call it ‘gender-based violence’, or ‘sexual and gender-based violence’. If there is no coherency regarding the use of terminology the effectiveness of such a law would be reduced. A specific law

would need to ensure full implementation by all states without reservation, and the establishment of an umbrella institution that would coordinate issues concerning SGBV with all other organizations globally. Additionally, the participation of men and boys needs to be encouraged to end SGBV. Finally, the law should enforce ‘zero tolerance’ of SGBV as well as strict punishments to end impunity.

4.2. The need for global cooperation under one umbrella institution

GRs 37 and 38 of the Committee of CEDAW (2018, 2020) and the Report of the Office of the United Nations High Commissioner for Human Rights (OHCHR 2019), Summary of the panel discussion on women’s rights and climate change: climate action, good practices and lessons learned, have already established that there is a need for global cooperation to end SGBV. The main objectives would be data collection and analysis as well as the sharing of the results. The partnership should be created among states, international institutions or organizations, non-governmental organizations, civil society organizations, universities and research institutions, different think tanks, corporate sectors, women, men, and LGBTQIA+ people. They should assist each other and work together. There is also a need for an umbrella institution that would assume a coordinating role (see *Figure 3*).

Figure 3: Model of global cooperation to end climate-induced SGBV against women



Source: The figure was created by the author.

4.3. The use of AI as a solution provider

The unfortunate lack of data on SGBV against women in general as well as on the increasing forms of SGBV against women due to climate change has already been discussed in detail. The available data is mostly based on reported incidents, but most of the cases are likely missing due to non-reporting or the practice of suffering in silence. This is exacerbated by the fear of social taboo, social stigmatization, and secondary victimization while perpetrators mostly manage to evade punishment. A recent study shows that information technology or AI can be one of the solutions to this global problem. For example, in Thailand, women can use *Sis Bot* which is a 24/7 information service for survivors of violence. Women who are facing domestic violence can message the *Sis Bot* via Facebook messenger. However, for such a solution to work gender equitable access and use of technology needs to be the baseline. Unfortunately, there is also evidence that technology-induced violence is on the rise, but AI can be used to counter that too (UN Women 2019; Henry, Flynn, and Powell 2020).

There is already a scientific consensus that climate change has a disproportionate impact on people whose adaptation capacity is low and who live in the most vulnerable situations. Technology, especially AI, could be a solution for those people. AI can be used to speed up climate adaptation and resilience by gathering and analysing, especially gender-disaggregated, data. It could contribute to the creation of an early warning system to prevent SGBV during climate crises or disasters, which could be especially vital for the over three billion people living in areas highly vulnerable to climate change, particularly in the Global South. AI can be used for research, education, and spreading awareness by modelling ‘climate feedback loops’ to help decision-makers to understand the effects of climate change and the need for policy reforms (UNESCO 2020).

According to GR 37 of the CEDAW Committee, women’s access to technology for preventing and mitigating the adverse effects of the climate crisis needs to be a key goal in order for women to benefit financially from climate change adaptation and mitigation technology. It has been repeatedly stressed that there is a need for sound data and analysis to design effective policies. Thus, collecting and analysing gender-responsive data is important for the planning and implementation of effective mitigation and adaptation policies. Big data and AI can be important tools for such a task, especially when focussing on how mitigation policies and governance structures relate to SGBV – and more specifically to trafficking against women where digital technology, particularly AI, can help to reach the survivors more easily and offer assistance. The recommendation states:

Call for information-sharing between digital interactive platforms in order to facilitate international cooperation in combating trafficking and sexual exploitation

and assist with law enforcement efforts. Improve data collection, ensure that data is up to date and provide for reliable information-sharing (CEDAW 2020:16).

AI can help to ensure equal access for women to resources, services, and technologies to assist and support their engagement in the governance, conservation, and sustainable use of biodiversity including financial services, credit, education, training, and relevant information among others (The Convention on Biological Diversity 2022). It can help to develop and deploy data, tools, and strategies to understand and address linkages between SGBV, climate change, and disasters. This applies in particular to the protection of women environmental human rights defenders who support the development and implementation of climate policies. Furthermore, AI might help to develop a national capacity to produce and use gender and climate change data, including relevant data disaggregation based on sex, age, ethnicity, and other demographic factors.

As in cases of conflict or war, AI can collect a huge amount of data, process it, and help to identify and analyse even an individual piece of information in times of climate crises or natural disasters. Here, AI could help the survivors of climate-induced SGBV by providing translations when the survivors are displaced and speak different languages. Additionally, AI algorithms can estimate collateral damage and the cost of climate change. The collection of data, however, should be fair and neutral. It should be free from any kind of already discriminatory or gender-related biases. Incorporating gender experts may be useful to avoid such fallacies (Jiménez 2021).

Although there is a chance to use AI to end SGBV, there are many studies that show how AI can be dangerous for gender equality. For example,

the word man is more often associated with computer programmers and woman more often associated with homemakers [...] the danger is that biases and stereotypes will not only result in showing certain search results but also be used as a basis for decision-making algorithms. If the *Word2vec* technique is used by algorithms, it may not only shape and distribute biases and stereotypes among search engines but also find its way into underlying data sets on which algorithms base their decisions and learn (Lütz 2022: 38).

Thus, the participation of women is equally important for AI companies to identify, address, and rectify the problem of gender discrimination by AI (Franzoni 2023). Consequently, there is still a chance of AI technology posing a threat to gender equality norms. But if AI could be channelled to serve a positive purpose within legal restrictions, it might be a solution provider to end SGBV against women and girls (UNESCO 2020, 2022).

4.4. Change the mindset: The participation of men and boys

Patriarchy is one of the reasons for SGBV. While benefitting mainly men, patriarchy is a system to which people from any gender can belong, leading to divisions even amongst groups of the same gender. Culturally determined behaviour supported by patriarchy causes gender marginalization. Climate change affects all, but not equally. Women and girls suffer the most, especially those affected by multiple discrimination e.g. indigenous women, displaced women, and old and disabled women. Hence, there is a need to address gender issues in climate planning and policies. Education and empowerment of women can be a solution to climate change. The media can play a crucial role in spreading awareness among people of all genders. There is a need for the participation of men or boys to end SGBV and also for them to open up about their own sufferings. Sensitization concerning SGBV could be included in the textbooks of schools as well as university curricula. The men or boys who participate to end SGBV should not be stigmatized or abused which should be ensured by the law. Here, the media, schools, universities, and other educational institutions can play a crucial role by encouraging men and boys to participate and spread awareness about gender equality and thus help to end SGBV.

4.5. The participation of women

20

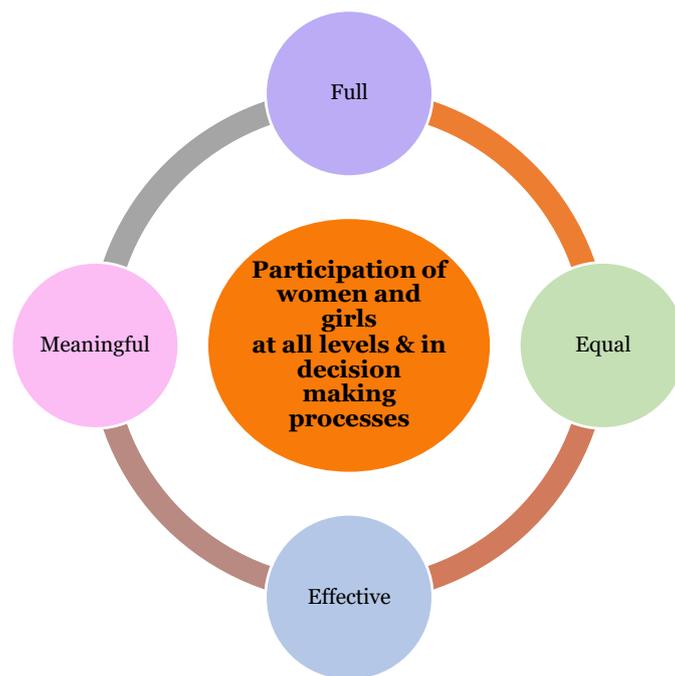
Alongside all of the other approaches presented in this study, the key solution or recommendation is the participation of women and girls in all decision-making platforms and processes. The participation of women should be full, equal, effective, and meaningful (see *Figure 4*). These factors are also highlighted in the different international instruments, reports, or decisions that have previously been discussed, like this in the sixty-fifth session of the Commission on the Status of Women that took place from 15 to 26 March 2021.

It acknowledges that gender equality and the empowerment of women and girls and women's full, equal, effective and meaningful participation and decision-making in public life as well as the elimination of violence are essential for achieving sustainable development, promoting peaceful, just and inclusive societies [...] 24. The Commission further emphasizes that the promotion of full and equal participation and leadership of women in public life and the elimination of all forms of violence against women and girls are interconnected (ECOSOC, CSW65 2021: 3).

To summarize states should ratify international law on SGBV and eliminate all forms of discrimination against women without reservation. Legislative reforms should be implemented at all levels to enforce the principle of non-discrimination, the participation of

women in both private and public life, and the elimination of SGBV. Governments across the globe should provide the opportunity for ‘leadership at the levels of decision making in political, social, economic, social, and cultural life and remove all structural barriers, inter alia, legal, institutional, economic, social, or cultural, that prevent the participation of women and girls’ (ECOSOC, CSW65 2021: 4). Alongside many other measures, there should be specific targets and timelines to achieve gender balance in executive, legislative, judicial, and other branches, including both public and private sectors within international, regional, national, and local systems. The perspective and special needs of women in general and specific groups of women such as refugees, internally displaced, migrants, disabled, indigenous, marginalized, and old women should always be taken into consideration. This applies in times of peace, but especially while making decisions regarding conflicts; humanitarian emergencies, like climate catastrophes, and disasters; and post-conflict reconstruction with the goal of taking appropriate measures to prevent SGBV.

Figure 4: Participation of women and girls to end SGBV due to climate change



Source: The figure was created by the author.

5. Conclusion

All human beings suffer because of the climate crisis, so why should women’s suffering, especially SGBV, be taken into special consideration and treated as a separate, urgent issue? Indeed, men, women, and LGBTQIA+ people are all facing the ramifications of

the climate crisis, but women face a special kind of consequence, solely because of their gender. It is well accepted that climate change affects women and girls disproportionately. Among women and girls, there are a few groups who are even more likely to face threats from several sides, like displaced women, refugee women, migrant women, indigenous women, disabled women, old women, and economically weaker or marginalized women. Among the many lasting threats women face, SGBV stands out; its impact can extend over generations. The long-term costs of climate change and SGBV are enormous. Consequently, we need a bottom-up approach to ensure that no woman is left behind.

References

- Allen, Elizabeth M., Munal, Leso and Henderson, Julie R.(2021), ‘Kenyan Women Bearing the Cost of Climate \ Change’, *International Journal of Environmental Research and Public Health*, 18(23): 12697.
- Ansele, Manuel (2018). ‘Do Heat Waves Fuel Domestic Violence?’, *EL Pais*, 25 July, available at: https://english.elpais.com/elpais/2018/07/24/inenglish/1532429737_500658.html (accessed 05 October 2023).
- CEDAW (1989). ‘General Recommendation No. 12’, *UN Women*, available at: <https://www.un.org/womenwatch/daw/cedaw/recommendations/index.html> (accessed 14 September 2023).
- CEDAW (1992). ‘General Recommendation No. 19’, *UN Women*, available at: <https://www.un.org/womenwatch/daw/cedaw/recommendations/index.html> (accessed 14 September 2023).
- CEDAW (2018). ‘General Recommendation No. 37 (2018) on the Gender-Related Dimensions of Disaster Risk Reduction in the Context of Climate Change’, available at: <https://digitallibrary.un.org/record/1626306> (accessed 01 August 2023).
- CEDAW (2020). ‘General Recommendation No. 38 (2020) on Trafficking in Women and Girls in the Context of Global Migration’, UN Doc. CEDAW/C/GC/38, 20 November, available at: <https://documents-dds-ny.un.org/doc/UN-DOC/GEN/N20/324/45/PDF/N2032445.pdf?OpenElement> (accessed 11 August 2023).
- CEDAW (2022). ‘General Recommendation No. 39 (2022) on the rights of Indigenous women and girls’, UN Doc. CEDAW/C/GC/39, 31 October, available at: <https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-recommendation-no39-2022-rights-indigeneous> (accessed 11 August 2023).
- Desai, Bharat H. and Mandal, Moumita (2021). ‘Role of Climate Change in Exacerbating Sexual and Gender-Based Violence against Women: A New Challenge for International Law’, *Environmental Policy and Law*, 51(3): 137–157.
- Desai, Bharat H and Mandal, Moumita (2022). *Sexual and Gender-Based Violence in International Law: Making International Institution Work*, Singapore: Springer Nature.
- ECOSOC, CSW65 (2021). ‘Advance Unedited Version 1: Women’s Full and Effective Participation and Decision-Making in Public Life, as Well as the Elimination of Violence, for Achieving Gender Equality and the Empowerment of all Women

and Girls CSW65 Agreed Conclusions’, 26 March, available at: <https://reliefweb.int/report/world/women-s-full-and-effective-participation-and-decision-making-public-life-well> (accessed 06 October 2023).

European Parliament (2022). ‘Violence against women in the EU State of play’, available at: [https://www.europarl.europa.eu/Reg-Data/etudes/BRIE/2022/739208/EPRS_BRI\(2022\)739208_EN.pdf](https://www.europarl.europa.eu/Reg-Data/etudes/BRIE/2022/739208/EPRS_BRI(2022)739208_EN.pdf) (accessed 05 October 2023).

Fatema, Riyadh Syadani, Islam, Md Shahidul, East, Leah and Usher, Kim (2019). ‘Women's Health-Related Vulnerabilities in Natural Disasters: A Systematic Review Protocol’, *BMJ Open*, 9(12): e032079.

Franzoni, Valentina (2023). ‘Gender Differences and Bias in Artificial Intelligence’, in Jordi Vallverdú (ed.), *Gender in AI and Robotics: The Gender Challenges from an Interdisciplinary Perspective*, Cham: Springer Nature.

Gevers, Anik, Musuya, Tina and Bukuluki, Paul (2020). ‘Why Climate Change Fuels Violence Against Women’, *UNDP*, available at: <https://www.undp.org/blog/why-climate-change-fuels-violence-against-women> (accessed 27 June 2023).

Henry, Nicola, Flynn, Asher and Powell, Anastasia (2020). ‘Technology-Facilitated Domestic and Sexual Violence: A Review’, *Violence Against Women*, 26(15–16): 1828–1854.

HRC (n.d.). ‘Human Rights Council Resolutions on Human Rights and Climate Change’, *OHCHR*, available at: <https://www.ohchr.org/en/climate-change/human-rights-council-resolutions-human-rights-and-climate-change> (accessed 12 August 2023).

HRC (2023), ‘Women, Girls and the Right to a Clean, Healthy and Sustainable Environment Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, David R. Boyd’, UN Doc. A/HRC/52/33*, 5 January 2023 (accessed 15 August 2023).

International Committee of the Red Cross (2010). Protocols Additional: To the Geneva Conventions of 12 August 1949, ICRC, available at: https://www.icrc.org/en/doc/assets/files/other/icrc_002_0321.pdf (accessed 11 August 2023).

International Union for Conservation of Nature (2023). ‘UN Special Rapporteur calls for accelerated, gender-transformative climate and environmental action’, 03 March, available at: <https://www.iucn.org/story/202303/un-special-rapporteur-calls-accelerated-gender-transformative-climate-and> (accessed 16 August 2023)

- Jiménez, Andrea Farrés (2021). ‘Embedding Gender in International Humanitarian Law: Is Artificial Intelligence Up to the Task?’, *Just Security*, 27 August, available at: <https://www.justsecurity.org/77970/embedding-gender-in-international-humanitarian-law-is-artificial-intelligence-up-to-the-task/> (accessed 03 October 2023).
- Lowen, Mark (2014). ‘Kenya's battle to end “sex for fish” trade’, *BBC*, 17 February, available at: <https://www.bbc.com/news/world-africa-26186194> (accessed 16 June 2023).
- Lütz, Fabian (2022). ‘Gender equality and artificial intelligence in Europe: Addressing direct and indirect impacts of algorithms on gender-based discrimination’, *ERA Forum*, 23(May 2022): 33–52.
- Mandal, Moumita (2023). ‘Climate change and gender-based violence’, KHK/GCR21, Workshop, 25 September, available at: <https://www.gcr21.org/the-centre/news/year/current/workshop-report-climate-change-gender-based-violence> (accessed 19 December 2023)
- OHCHR (n.d.a). ‘Special Procedures of the Human Rights Council’, available at: <https://www.ohchr.org/en/special-procedures-human-rights-council/special-procedures-human-rights-council> (accessed 16 August 2023).
- OHCHR (n.d.b). ‘Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment’, available at: <https://www.ohchr.org/en/special-procedures/sr-environment> (accessed 15 August 2023).
- OHCHR (2019). ‘Summary of the Panel Discussion on Women’s Rights and Climate Change: Climate Action, Good Practices and Lessons Learned’, 24 July, available at: <https://www.ohchr.org/en/documents/reports/summary-panel-discussion-womens-rights-and-climate-change-climate-action-good> (accessed 28 February 2024).
- OHCHR (2022). ‘Climate Change Exacerbates Violence Against Women and Girls’, 12 July, available at: <https://www.ohchr.org/en/stories/2022/07/climate-change-exacerbates-violence-against-women-and-girls> (accessed 16 June 2023).
- Ondieki, Geoffrey, Shetty, Disha and Balagtas See, Aie. (2023). ‘Climate change puts more women at risk for domestic violence’, *The Washington Post*, 3 January, available at: <https://www.washingtonpost.com/climate-environment/2023/01/03/domestic-violence-climate-change-umojja/> (accessed 26 June 2023).
- Prescott, Jody M. (2019). *Armed Conflict, Women and Climate Change*, New York, NY: Routledge.

Soliman, Ayat, Carlsson Rex, Helene and Warren, David (2022). ‘Climate Change and Gender-Based Violence: Interlinked Crises in East Africa’, *World Bank Blogs*, 09 December, available at: <https://blogs.worldbank.org/climatechange/climate-change-and-gender-based-violence-interlinked-crises-east-africa> (accessed 07 June 2023).

The Convention on Biological Diversity (2021). ‘Draft Post-2020 Gender Plan of Action’, Third meeting (resumed) Geneva, Switzerland, 12–28 January 2022, Agenda Item 5, UN Doc. CBD/SBI/3/4/Add.2/Rev.2, 21 November 2021, available at: <https://www.cbd.int/doc/c/0919/6830/6fe8d737b8192a39f3378e23/sbi-03-04-add2-rev2-en.pdf> (accessed 07 August 2023).

The Convention on Biological Diversity (2022). ‘Post-2020 Global Biodiversity Framework: Draft Recommendation Submitted by the Co-Chairs’, Fifth Meeting, Montreal, 3–5 December 2022 Agenda Item 4, UN Doc CBD/WG2020/5/L.2, 5 December 2022, available at: <https://www.cbd.int/doc/c/409e/19ae/369752b245f05e88f760aeb3/wg2020-05-1-02-en.pdf> (accessed 28 February 2024).

The Convention Relating to the Status of Refugees (1951). *OHCHR*, available at: <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-relating-status-refugees> ; <https://www.ohchr.org/sites/default/files/refugees.pdf> (accessed 16 September 2023).

The Geneva Convention Relative to The Protection of Civilian Persons in Time of War (1949). 12 August, available at: https://www.un.org/en/genocideprevention/documents/atrocities-crimes/Doc.33_GC-IV-EN.pdf (accessed 11 August 2023).

UN (n.d.). ‘What Is Climate Change?’, available at: <https://www.un.org/en/climatechange/what-is-climate-change> (accessed 16 June 2023).

UNDRR (n.d.). ‘What is the Sendai Framework for Disaster Risk Reduction?’, available at: <https://www.undrr.org/implementing-sendai-framework/what-sendai-framework> (accessed 16 September 2023).

UNESCO (2020). *Artificial Intelligence and Gender Equality: Key Findings of UNESCO’s Global Dialogue*, UN DocGEN/2020/AI/2 REV, available at: <https://unesdoc.unesco.org/ark:/48223/pf0000374174> (accessed 03 October 2023).

UNESCO (2022). ‘Fighting Climate Change with the AI for the Planet Alliance’, available at: <https://www.unesco.org/en/articles/fighting-climate-change-ai-planet-alliance> (accessed 02 October 2023).

UNFCCC (2020). ‘Report of the Conference of the Parties on its twenty-fifth session, held in Madrid from 2 to 15 December 2019: Addendum Part two: Action taken

by the Conference of the Parties at its twenty-fifth session', UN Doc. FCCC/CP/2019/13/Add.1, 16 March 2020, available at: https://unfccc.int/sites/default/files/resource/cp2019_13a01E.pdf (accessed on 06 October 2023)

UNGA (1979). 'The Convention on the Elimination of All Forms of Discrimination against Women', *OHCHR*. available at: <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-elimination-all-forms-discrimination-against-women> (accessed 14 September 2023).

UNGA (2022a) 'Intensification of Efforts to Prevent and Eliminate All Forms of Violence Against Women and Girls: Gender Stereotypes and Negative Social Norms', Res. 77/193, UN Doc. A/RES/77/193, 30 December 2022, available at: <https://documents.un.org/doc/undoc/gen/n22/759/58/pdf/n2275958.pdf?token=hJNsrmq3h4E7QNuRF&fe=true> (accessed 13 August 2023).

UNGA (2022b). 'Report of the Special Rapporteur on Violence Against Women and Girls, Its Causes and Consequences, Reem Alsalem: Violence Against Women and Girls in the Context of the Climate Crisis, Including Environmental Degradation and Related Disaster Risk Mitigation and Response', UN Doc. A/77/136, 11 July 2022, available at: <https://documents.un.org/doc/undoc/gen/n22/418/07/pdf/n2241807.pdf?token=2zBYbg0vTYLXcQtYtz&fe=true> (accessed 16 August 2023).

UNGA (2022c). 'Trafficking in Women and Girls', Res. 77/194, UN Doc. A/RES/77/194, 30 December, available at: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/759/64/PDF/N2275964.pdf?OpenElement> (accessed 13 August 2023).

UNGA (2023a). 'Child, Early and Forced Marriage', Res. 77/202, UN Doc. A/RES/77/202, 3 January, available at: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/760/69/PDF/N2276069.pdf?OpenElement> (accessed 13 August 2023).

UNGA (2023b). 'Women, Girls and the Right to a Clean, Healthy and Sustainable Environment Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, David R. Boyd', UN Doc. Annex to A/HRC/52/33, 03 March, available at: <https://www.ohchr.org/sites/default/files/documents/issues/environment/srenvironment/reports-annex/Annex1-to-A-HRC52-33.pdf> (accessed 22 April 2023).

UN Peacemaker (n.d.), 'Security Council Resolutions on Women, Peace and Security', available at: <https://peacemaker.un.org/wps/normative-frameworks/un-security-council-resolutions> (accessed on 13 December 2023).

UN Women (n.d.). ‘Work of the General Assembly on Violence Against Women: Work of the General Assembly since 2000’, available at: <https://www.un.org/women-watch/daw/vaw/v-work-ga.htm#:~:text=In%201993%2C%20the%20General%20Assembly,%2C%20of%2019%20December%201993>) (accessed 12 December 2023).

UN Women (2019). ‘Using AI in Accessing Justice for Survivors of Violence’, 30 May, available at: <https://www.unwomen.org/en/news/stories/2019/5/feature-using-ai-in-accessing-justice-for-survivors-of-violence> (accessed 03 July 2023).

UN Women (2023). ‘Overcoming Gender-Based Violence as a Barrier to Human Rights and Environmental Sustainability’, 18 April, available at: <https://www.unwomen.org/en/news-stories/feature-story/2023/04/overcoming-gender-based-violence-as-a-barrier-to-human-rights-and-environmental-sustainability> (accessed 09 May 2023)

Acknowledgement

Special thanks to Prof. (Dr) Sigrid Quack, Prof. (Dr) Tobias Debiel, KHK/GCR21, Duisburg, Germany; Prof. (Dr) Anne Peter, Max-Planck Institute for Comparative Public Law and International Law, Heidelberg, Germany; and Prof. (Dr) Bharat H Desai, Jawaharlal Nehru University, Delhi, India for their support and valuable suggestions.

Abstract

Climate change has emerged as the predominant ‘world problematique’. Though entire populations are affected by climate change, women and girls suffer the most. The consequences of natural disasters, women face heightened real-life challenges, especially exposure to different forms of sexual and gender-based violence (SGBV). Women are exposed to SGBV due to the lack of social, economic, and political security and the culture of widespread impunity for the perpetrators. There is no specific international legal instrument that deals with SGBV against women. While scholarship outlines how climate change exacerbates SGBV against women and girls, even the texts of the three specific climate change treaties (1992 United Nations Framework Convention on Climate Change, 1997 Kyoto Protocol, and 2015 Paris Agreement) do not address the issue. Only the decisions of the Conference of the Parties in recent years have reflected the importance more recently. It is a new challenge for international law that needs to be duly addressed in a timely manner as a global common concern. Multilateralism, partnership, and cooperation at the global level could help to address the issue and find solutions. This study analyses the causal relationship between climate change and SGBV, the existing international legal instruments that are addressing the issue, and possible solutions to end SGBV.

Author

Dr Moumita Mandal is currently an Assistant Professor at TERI-SAS, New Delhi. She completed her Ph.D. and M.Phil in International Law at the Jawaharlal Nehru University, New Delhi, and obtained her LL.M in International Law from the W.B National University of Juridical Sciences (NUJS), India. She was also a Post-Doctoral Research Fellow, Nehru Chair, Jawaharlal Nehru University, New Delhi. She was a Senior Research Fellow at the Käte Hamburger Kolleg/Centre for Global Cooperation Research (KHK/GCR21), Universität Duisburg-Essen, Germany and a Visiting Fellow at the Planck Institute for Comparative Public Law and International Law, Heidelberg, Germany. Her research works include ‘Sexual and Gender-Based Violence in International Law: Making International Institutions Work’, Singapore: Springer Nature, 2022; <https://link.springer.com/book/10.1007/978-981-19-0894-1>
Email: moumita.ilaw@gmail.com