



# Climate Change and Gender Based Violence

Overview of current research

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Titles in this series aim to disseminate interim research on climate services and climate-smart agriculture in Africa, in order to stimulate feedback from the scientific community.

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## ABBREVIATIONS

<b>AICCRA</b>	Accelerating Impacts of CGIAR Climate Research in Africa
<b>CSA</b>	climate smart agriculture
<b>FAO</b>	Food and Agriculture Organisation
<b>GBV</b>	gender-based violence
<b>IOM</b>	International Organisation for Migration
<b>IPV</b>	interpersonal violence
<b>IUCN</b>	International Union for the Conservation of Nature
<b>LGBTQIA+</b>	lesbian, gay, bisexual, transgender, queer, questioning, intersex, or asexual
<b>STD</b>	Sexually transmitted disease
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>VAWG</b>	violence against women and girls

# 01. INTRODUCTION

UN Women has identified violence against women and girls (VAWG) and climate change as the two most pressing global emergencies and sustainable development challenges. “With devastating social, cultural, economic, health and human rights impacts, affecting women and girls disproportionately, especially the most marginalized groups” (UN Women and IUCN, 2022, 1), climate change presents threats to global sustainability (UN Women and IUCN, 2022; Turquet et al, 2023).

## Gender based violence and climate change

In 1995, the Beijing Declaration and Platform for Action identified “violence against women,” and “women and the environment” as two of the twelve strategic objectives for the international community to achieve gender equality. In the next two decades, a causal link between these two domains started to be drawn. A growing number of studies have questioned the impacts of anthropogenic climate change and extreme weather events on gender-based violence (GBV), most published after 2015 (van Daalen et al., 2022).

Gender-based violence is defined by the UNHCR as referring to “harmful acts directed at an individual based on their gender”; it is “rooted in gender inequality, the abuse of power and harmful norms” (UNHCR, 2022). Gender-based violence (GBV) includes “sexual, physical, mental and economic<sup>1</sup> harm inflicted in public or in private,” as well as “threats of violence, coercion and manipulation” (Ibid.). It can take the form of intimate partner violence, sexual or physical assaults, child marriage, female genital mutilation and so-called “honour crimes” (IUCN, 2020, 2).

In environment and climate literature, GBV is rarely addressed as a primary object of research and tends to be overshadowed by the more visible impacts of climate change and extreme weather events. On the other hand, public health interventions intended to reduce GBV in Africa rarely take into account the effects of climate change (Allen et al., 2023). Nevertheless, “climate change has a tendency to reflect and exacerbate the worst inequalities, including gender inequalities” (Wonders & Danner, 2015)<sup>2</sup> and, with the frequency, severity and duration of extreme events expected to increase in the years to come (IPCC, 2022), it is essential to move forward research on the socio-economic impacts of such stressors. to further understand and prevent the different forms of interpersonal violence (IPV) that can be triggered. For example, women and girls become more vulnerable to violence as they walk longer distances for water, food and fuel (Terry, 2009). The following section provides a synthetic overview of current research on the effects of climate change on increasing or changing the expressions of GBV, organized for clarity by exposure pathways.

<sup>1</sup> Note that depending on the definitions of GBV, economic violence is or is not included as part of its manifestations.

<sup>2</sup> See also IPCC (2022), H. T. Nguyen (2019) and Dankelman (2010).

## 02. GENDER BASED VIOLENCE DURING EXTREME EVENTS

The most studied aspect of GBV in relation to climate change is its manifestation during and after climate-induced disasters such as hurricanes, floods, or wildfires. A recent systematic review indicates a positive association between exposure to extreme events and GBV, a result of increases in economic instability, food insecurity, mental stress, disrupted infrastructure, increased exposure to men, and exacerbated gender inequality. van Daalen et al. observe: “Extreme events do not cause GBV; rather, extreme events exacerbate drivers of violence or create enabling environments for this behaviour. The primary causes are systematic social and patriarchal structures enabling and normalising GBV” (2022, e519). This and another study (Thurston et al., 2021) found the primary perpetrators of violence to be current or former intimate partners. Intimate partner violence (IPV) can be exacerbated by post-disasters stressors such as poverty, unemployment, food insecurity, and lack of social support (*ibid.*, 10). In Australia, several studies have found increased rates of IPV in communities affected by bushfires, especially in households experiencing significant reductions in income (Molyneaux et al., 2020; Parkinson & Zara, 2013). Increased violence after disasters such as typhoon Haiyan has been documented in many countries (see Nguyen et al., 2018; Dominelli, 2020). In the US, an increase in IPV was documented following Hurricane Katrina, including longer-term psychological impacts and GBV after the event (Schumacher et al., 2010; Thurston et al., 2021).

### Climate Disasters

Beside the many cases of domestic violence documented as a result of climate impacts and natural disasters, women and girls can also be exposed to abuse by other family members, strangers, community members, and authority figures (Rezwana & Pain, 2021; Thurston et al., 2021). The existing literature has highlighted the violence that women and girls often face in densely populated temporary shelters and displacement camps, where they have little privacy and, much of the time, no separate sanitary space. Studies in Bangladesh (Alam & Rahman, 2014), the Philippines (Su & Tanyag, 2020), and Pakistan (Memon et al., 2022), have consistently reported cases of physical or psychological harassment, unwanted sexual contact, and rape in these situations. In Bangladesh, women at times prefer staying behind rather than going to cyclone shelters (Alam & Rahman, 2014), and as a result face greater harm from the disaster itself. In some cases, women and girls are also subject to blackmail by local authorities or aid workers, who in some cases demand sexual relationships in exchange for relief distribution (Rezwana & Pain, 2021).

In some cases catastrophic events can be followed by increases in early marriage, as documented in Iran (Sohrabizadeh, 2016), Bangladesh (Ahmed et al., 2019; Carrico et al., 2020; Hossen et al., 2021; Udas et al., 2019), Nepal (Aryal, 2014), Mozambique (Chifeche & Dreyer, 2019) as well as in global surveys (Mazurana et al., 2019). Child marriage can for some families be a source of economic relief, but also a way to avoid risks of sexual harassment and rape to their daughters (Alston et al., 2014). Climate disasters have also been shown to provide a breeding ground for sexual exploitation and human trafficking. Sheu observes that gender inequality, political instability, and forced displacement are some of the factors that put economically disadvantaged people at higher risk of being trafficked (International Organization for Migration (IOM), 2016; Sheu et al., 2021; Tanyag, 2018). Women and girls from impoverished families are most likely to be coerced into forced labor and sex trade (Chifeche & Dreyer, 2019; Yadav & Lal, 2018). Some of them also engage in transactional sex as a means of survival for themselves and their families (Loevinsohn, 2015; Luetke et al., 2020; Tanyag, 2018) With little access to safe sex practices and to sexual

health services, they are also exposed to unwanted pregnancies and STDs including HIV/AIDS (Yadav, 2018, 7; Loevinsohn, 2015).

Another, less studied aspect of GBV in the wake of extreme weather events is the targeting of gender and sexual identity groups as scapegoats for such disasters. In Bangladesh, several informants reported that fundamentalist religious leaders put the blame on women for climate change and its devastating impacts (Alston et al., 2014). In Tanzania, witch killing has been reported in relation to draughts and floods (Miguel, 2005), while in Fiji, sexual and gender minorities who were blamed for cyclone Winston in 2016, have been victims of harassment, physical violence, and at times deprived of relief support (Dwyer & Woolf, 2018).

The disruption of law enforcement is a key influencing factor for GBV in post-disaster settings (Thurston et al, 2021), sometimes perpetrated by security forces themselves (Nguyen et al, 2018). Long-term social, physical and mental health impacts turn into “a second disaster” (Rezwana, 2020, 741), especially as access to health and support services is compromised.

## **Behavioural impacts of temperature increase**

Some recent studies have investigated the links between increasing temperatures and the occurrence of violent behaviours. According to the General Affective Aggression Model (1995), exposure to high temperatures can produce irritability and stress, which in turn lower the threshold for violence (Lindsay & Anderson, 2000). Data collected in China, South Africa, Japan, Russia, and the US all demonstrate a positive association between average than normal temperatures and rates of interpersonal violence (Chersich et al., 2019; Hu et al., 2020; Lee et al., 2020; Otrachshenko et al., 2021; Parks et al., 2020).

If most studies on the topic lack gender analyses and gender-disaggregated data on perpetrators and/or victims of violence, some have sought to specifically examine the links between increasing temperatures and IPV. In the US, an early study showed that physical and sexual violence by men toward women increased in the summer months, independently of any major seasonal changes, from increased opportunity for contact between perpetrator and victim (Michael & Zumpe, 1983). More recently, a study in Madrid demonstrated that between 2008 and 2016, heatwaves were linked to increased IPV and femicide (Sanz-Barbero et al., 2018). With the frequency of heatwaves intensifying around the world (Perkins-Kirkpatrick & Lewis, 2020), more gender-disaggregated research and intersectional analyses are needed to better understand the correlation between changing temperatures and GBV, and to inform adequate policy responses to prevent violence.



## 03. CLIMATE CHANGE-INDUCED PRESSURE ON THE ENVIRONMENT AND FOOD SECURITY

The majority of research on climate and GBV focuses on violence occurring during and after disasters. However more research is emerging on how incremental effects of climate change that impact the availability of natural resources, puts the communities that depend on them under stress and increases the potential for GBV. In countries where water is not available in or near households, women and girls are primarily responsible for water collection (IUCN, 2020, 43). This activity can compromise their capacity to attend school, to carry out income generating activities, and to enjoy leisure time, perpetuating the gendered cycle of poverty. They are also often exposed to physical and sexual assault and rape, especially as their walking distance to access water for household and personal use, and other natural resources increases (Sommer et al., 2016; Ward & Lafrenière, 2014; Yadav & Lal, 2018). Women in some cases also face IPV when men use violence as a way to maintain their control over decreasing natural resources (Dankelman, 2016).

Where irregular rainfalls and droughts compromise natural and agricultural resources, forced marriage for children has been used as a coping strategy (Carrico et al., 2020; Dankelman, 2012; Udas et al., 2019). In Bangladesh, one of the countries with the highest rates of child forced marriage (UNICEF, 2023), and where the dowry is paid by the bride's family, marrying girls before the age of 18 is a means to lower the dowry as much as to reduce family food expenditure (Alston et al., 2014; Hossen, 2021). Forced marriage often forces girls to withdraw from school (*Ibid.*; Rezwana, 2020). In India, periods of drought and economic stress have been linked to increased IPV and dowry deaths (Sekhri & Storeygard, 2014).

### Environmental advocates

Violence against environmental human rights defenders has been on the rise, affecting both men, women, and their communities; yet women engaged in environmental work face gender-specific risks through intimidation, misogyny, physical violence, threats of rape, or criminalization (Barcia, 2017; IUCN, 2020). While women, in particular Indigenous women, have played a historic role against the destruction and privatization of natural resources and ecosystems, GBV has been used as a way to undermine their power, credibility, and to discourage them from coming forward (Barcia, 2017; IUCN, 2020). This is especially the case when they belong to communities with little access to justice and to media attention, where a culture of impunity can reign (IUCN, 2020, 167).

Beside the violence that environmental activists can face, women employed in the environmental sector can also be exposed to GBV in their workplace. In professional fields that are still largely male-dominated such as the renewable energy industry, marine biology, or park conservation, women have been subject to discrimination, abuse of power relations, harassment, and sexual assault—either from their peers or in the field (O'Neil et al., 2015; UN Women, 2020). In addition, women employed in the environmental sector often work in lower-paid positions than men or are paid less for the same position (Williams et al., 2019).



## Climate change, food security and violence

The emerging literature on GBV and climate change highlights important implications for the agriculture sector and suggests that women and girls whose households depend on agricultural income are exposed to risks of violence in times of stress.

### Variations in agricultural production and IPV

Research in many regions indicates that in periods of food insecurity, women and female children are often the first to be negatively affected (FAO, 2020; P. H. Nguyen et al., 2013). There are economic, different explanations for this. Women have less independent income, leading to increased reliance on male household members. In times of shock, food and other resources tend to be channelled to men and bread-winning males of a family (Hadley et al., 2008). In situations of psychological and social stress on men during food insecurity, they may vent their frustrations on women (Agrawal et al., 2023; Jewkes, 2002). A recent meta-analysis of research on gender, climate change, food security and GBV found that almost every type of GBV has been found in relation to climate shocks and resulting food insecurity—from domestic (e.g., beatings, verbal abuse, economic coercion) to non-domestic (e.g., harassment, trafficking, withholding entitlements) (Agrawal et al., 2023).

Several studies in South Asia show a pattern of exacerbated domestic violence when climate variation affects household crops, and thereby its economic security and food security. Women respondents in a study conducted in South India reported increased depressive and violent behaviors from their husbands, after crop losses and property damage triggered by extreme weather conditions (Xenarios et al., 2017). Other studies from India and Bangladesh find a significant increase in dowries for women (Sekhri & Storeygard, 2014; Hossen et al., 2021) after climate events affect household production. As Hossen et al. observe, “physical violence sometimes continues until the wife can bring the money, leaves the husband’s house, or commits suicide” (2021, 11). In some cases, the husband eventually marries another girl to secure his targeted dowry (*Ibid.*). Incidentally, 79% percent of married female survey participants reported trying to provide the maximum amount of food to their husbands—at times fasting for several days—in order to provide them with enough caloric intake to perform their work correctly (*Ibid.*, 9).

Some examples of how food security, climate change and gender-based violence interact are presented in Agrawal et al (2023). For example, severe flooding affected basic infrastructure, causing an increase in food prices and lack of safe drinking water. Unemployment caused by these stressors led to increased tension within families and a rise in domestic violence. A 1997 drought that affected the Hawa people in Papua New Guinea led to food insecurity and an increased incidence of “witch killings” (Miguel, 2005), violence targeted predominantly at women.

### Farmer migration and GBV

In regions where climate change severely increases agricultural risks and price instability, more and more farmers are pushed to look for alternative sources of income, and to migrate to other regions or countries in search of job opportunities. Small farmers in countries where crops are predominantly rainfed are particularly vulnerable to this phenomenon (Vermeulen et al., 2012). In Malawi, the famine of 2001-03 pushed many young female farmers to migrate to less affected rural and urban areas, where they become more exposed to coerced sex on farms where they found work, or were forced to engage in transactional sex as a coping mechanism (Loevinsohn, 2015). In Nepal where climate change has caused severe agricultural loss, women farmers are increasingly exposed to violence in their own communities as their husbands migrate to remote places to find work, and as they themselves enter new work sectors dominated by men (Udas et al., 2019). In Bangladesh, where it is estimated that one in every seven people will be displaced by climate change by 2050, it has been documented that migration patterns that used

to be led by men, increasingly involve women (Ranjan, 2016). As the agricultural sector is impacted by repeated cyclones and floods, a growing number of women and girls migrate to the Gulf countries, Lebanon, India, and East Asia, either voluntarily for sex work or domestic work, or through trafficking and bonded labor. Women migrating to West Asia run the risk of sexual exploitation, physical abuse and low or non-existent wages (Diab, 2022). Children may also experience violence when their parents have migrated for employment (Udas et al, 2019).

## 04. GENDER BASED VIOLENCE IN GENDER-BLIND DEVELOPMENT PROGRAMS

Lastly, GBV in communities affected by climate change can be exacerbated by development programs that do not account for gender norms in the context in which they are deployed. In the use of microfinance tools in rural Bangladesh, for instance, even though the great majority of loan recipients were women, they often handed over the money to their husband or father; many of them reported being exposed to physical violence when asking their husbands for the weekly repayments (Ali et al., 2017). A study of climate-smart agriculture (CSA) technology users in rural Ethiopia found that gender-blind development programs do not decrease GBV. Opening access to credit for women in the community in some cases exposed them to household violence, their husbands assaulting them and taking away the loan for a different purpose (Tsige, 2019). As this case and others demonstrate, climate-resilient agriculture and food security programs will not inherently reduce the risk of violence against women unless the potential for this risk is assessed and taken into account in planning and implementation.

### The effect of climate change on men and masculinity

The effects on men and masculinities of climate impacts and disasters are still not well studied (H. T. Nguyen & Rydstrom, 2018). In 2012 Alston found significant impacts on men of a major drought in Australia that continued for over a decade. Climate variability, lower socio-economic conditions and reduced farm production resulted in a suicide rate for rural men that became significantly higher than rural women, urban men or urban women (Alston, 2012). Failing to understand climate impacts on men can lead to a failure to take into account impacts their households. It can also lead to situations of increased risky and harmful behaviour, including GBV (Rushton et al., 2020). In her analysis of masculinity in the 2004 tsunami in Sri Lanka, Dominelli (2020) notes that masculinities in this context are related to men's active roles in disasters, their position in the family before and after disasters, and their roles during reconstruction. When men's needs are not specifically addressed in the process of humanitarian aid, aid programs can result in destroyed or severely reduced livelihoods that in turn can influence alcohol and drug abuse, violence, or abuse of women and children.

Some solutions to this include the 'Say No to Violence' (Nói Không với Bạo Lực) campaign in Vietnam launched by The Women's Union and the Law Center in fishing communities after the 2009 typhoon. The campaign targeted both perpetrators and survivors in households suffering from violence and provided training to men on laws prohibiting violence and psychological and physical effects on victims. In some cases households were offered 500,000 Vietnamese Dong (about 22 USD) if violence ceased. Other measures included public education programs and even fines for repeat perpetrators. Local women's organizations also mobilized to address abuse in their communities (H. T. Nguyen & Rydstrom, 2018).

More generally, the LGBTQIA+ community globally is specifically exposed to GBV in post-disaster settings, in particular in temporary shelters—when it is not simply denied access to them and other relief resources (Gaillard et al., 2017). In the US, some studies have documented the psychological and physical violence faced by the LGBTQIA+ community in the wake of Hurricane Katrina, when gay couples' status was not recognised and they resettled separately (Dominey-Howes et al., 2014).

## 04. CONCLUSION AND PATHS FORWARD

A main finding of the review is that the literature on GBV in relation to climate change and climate impacts is very limited. Most of the research that exists occurs in the context of disasters such as hurricanes and heat waves. GBV is most widely addressed in relation to recovery from disasters and access to water and energy sources, especially in humanitarian settings. Existing data is likely an underestimation of actual figures, due to low levels of reporting. Researchers will need to find non-harmful ways to account for this and enable secure environments for GBV victims to report their experiences.

There is a need to account for the different manifestations of GBV in different climate circumstances and over time, for example: more research is needed on GBV and climate migration; the role of GBV in constraining women's participation in leadership around climate responses; GBV and equity in the environmental workplace; and barriers to reporting.

There is a strong regional emphasis to date on South Asia, perhaps because of the high number of disaster events that take place in the region (UNESCAP, 2023), as well as Haiti and Hurricane Katrina, likely because of their proximity to the US. Greater inclusion of GBV is needed in studies on community impacts of climate change. Further quantitative and qualitative research with ethnographically diverse, longitudinal cohorts is needed.

A great deal of current research does not include comprehensive gender analysis, it tends to be focused on women as a homogenous group, rather than investigating the different implications for young women and girls or indigenous women. More research is needed that takes into account contextually relevant factors such as local norms, traditions, and social attitudes related to gender roles, risks and opportunities in the context of climate change. Sexual minority groups, for example, are often at high risk, a situation which can be exacerbated by climate impacts.

While more research is emerging around men and masculinities in the context of climate impact and disasters (Alston, 2012; Nagel & Lies, 2022; Rushton et al., 2020; Wonders & Danner, 2015), further work is needed to document men's experience and analyze the role of gender constructions and masculinities in their responses as well as impacts on their lives and livelihoods.

For program planners and implementors, more research and practice is needed on approaches and solutions to understanding and addressing the potential GBV impacts of their work. Partnerships with NGOs or government agencies experienced in GBV and climate extremes are one potential avenue. Additionally, participatory and consultative approaches are needed with all members of a community to understand risks of GBV, as well as to develop practical and effective solutions.



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