



Until we are all equal

The State of the World's Girls 2026



Change her Forecast

How the climate crisis fuels sexual violence, child marriage and unintended pregnancy, and limits girls' futures

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Key definitions

Abortion: The voluntary ending of a pregnancy.¹

Adolescent: Plan international adopts the United Nations (UN) definition of an adolescent as a person between the ages of 10 and 19.²

Child, early and forced marriages and unions (CEFMU): Plan International defines CEFMU as any marriage or informal union, whether under civil, religious or customary law, with or without formal registration, where either one or both spouses are under the age of 18, because the full and free informed consent of one or both of the parties has not been obtained. CEFMU is a complex practice, and the correct terminology must be used to represent the heterogeneity and nuances of the practice. For the purposes of this report, 'child marriage and unions' acts as an umbrella term to include informal unions as well as child, early and forced marriages.

Climate change: A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere, and which is in addition to natural climate variability observed over comparable time periods. The United Nations Framework Convention on Climate Change (UNFCCC) makes a distinction between "climate change", attributable to human activities altering the composition of the atmosphere, and "climate variability", which can be attributed to natural causes.³

Climate events: Weather-related events or patterns resulting from climate changes that are either natural or driven by human activity. These can be extreme events (droughts, floods, storms, including cyclones/hurricanes, and landslides/mudslides) or gradual changes (rising temperatures or a change in rainfall patterns) that impact communities.

Climate-related hazards: Hazards can be natural or human-made, a phenomenon or human act, such as a tsunami, landslide or rise in sea level. Understanding the multiple risks hazards can cause – especially from long-term drivers of risk like climate change – allows governments, schools, communities and households to prevent, mitigate or prepare for sudden hazards (e.g. wildfires or floods) or slow-onset hazards (e.g. droughts). A disaster occurs when the impact of a hazard is greater than the resources and capacities of a person or a community to mitigate it. In other words, not every hazardous event becomes a disaster.⁴

Climate shocks: Climate-related hazards such as a droughts, floods or heavy rain.⁵

Climate stresses: Negative pressures that take place over time, which constrain the ability of an individual, household, population group, asset or system to reach its full potential (e.g. changing seasonality, irregular rainfall patterns and sea-level rise).⁶

Contraception: Methods, devices or practices used to reduce the risk of pregnancy. It encompasses various methods, including barrier methods (e.g. condoms or diaphragms), hormonal methods (e.g. pills, patches, implants, injections or IUDs), non-hormonal methods (e.g. sterilisation or non-hormonal IUD), as well as emergency methods after unprotected sex.

Drought: A phenomenon that occurs when precipitation has been significantly below normal recorded levels, causing serious hydrological imbalances that adversely affect land resource production systems.

Gender-based violence (GBV): Acts of physical, mental or social abuse that are attempted or threatened, with some type of force, and are directed against a person because of his or her gender roles and expectations in a society or culture. Forms of gender-based violence include sexual violence, sexual abuse, sexual harassment, sexual exploitation, early marriage or forced marriage, gender discrimination, denial of rights (such as education, food, freedom) and female genital mutilation/cutting.⁷

Sexual and reproductive health and rights (SRHR): Sexual and reproductive health is a state of physical, emotional, mental and social wellbeing in relation to all aspects of sexuality and reproduction, not merely the absence of disease, dysfunction or infirmity. Therefore, a positive approach to sexuality and reproduction should recognise the part played by pleasurable sexual relationships, trust and communication in the promotion of self-esteem and overall wellbeing. All individuals have a right to

make decisions governing their bodies and to access services that support that right. Achievement of sexual and reproductive health relies on the realisation of sexual and reproductive rights, which are based on the human rights of all individuals.⁸

Slow-onset disaster: A disaster that emerges gradually over time. Slow-onset disasters could be associated with drought, desertification, sea-level rise or epidemic disease.⁹

Sudden-onset disaster: A disaster triggered by a hazardous event that emerges quickly or unexpectedly. Sudden-onset disasters could be associated with an earthquake, volcanic eruption, flash flood, chemical explosion, critical infrastructure failure or transport accident.¹⁰

Unintended pregnancy: Refers to a pregnancy that takes place when a person is not trying to get pregnant. Unintended pregnancies can be wanted (e.g. occurring earlier than desired) or unwanted (not desired at all).

Unsafe abortion: A procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards, or both.

Executive summary

The 2026 edition of the State of the World's Girls report aims to strengthen and deepen the evidence on how climate shocks reach into girls' and young women's sexual and reproductive lives, bringing together three complementary methods: a review of the existing literature; a large-scale statistical analysis of Demographic and Health Survey (DHS) data across 52 countries over three decades (1990-2019); and primary research with girls and young women through a survey of 5,000 respondents, in-depth interviews and focus groups across five countries (Bangladesh, Kenya, Peru, Senegal and Zimbabwe).

This report is set within a broader global context marked by intersecting crises such as climate change, conflict, economic instability, shrinking civic space and a rising tide of anti-rights and anti-gender movements. These crises collectively deepen the vulnerabilities that girls and young women already face. The climate crisis acts as a threat multiplier: it strains health systems, erodes household economies, and weakens the social and institutional protections girls depend on, often pushing families towards harmful coping responses, such as child marriage and withdrawing girls from school, when income, food security and services collapse.

However, these harms are not attributable to climate change alone. Climate shocks do not introduce sexual and reproductive health (SRH) risks into communities where they were absent; they intensify, compound and extend the inequalities girls and young women already live with. These inequalities are rooted in discriminatory social and gender norms, in SRH services that were under-resourced and marginalised long before any drought or flood, and in adaptation frameworks and climate finance that have so far overlooked girls' and young women's rights.

Across all research methods, the findings are clear and consistent:

Extreme heat and flooding are the hazards girls live with most. One in three girls and young women named extreme heat as the event with the most severe impact on them and their community (33.0 per cent), and more than one in four named flooding (27.6 per cent). Their accounts of flooding are ones of acute collapse: clinics under water, health workers unable to reach facilities, boat fares rising fiftyfold, and women crossing flooded rivers to give birth without skilled assistance.

Slow-onset drought, however, is the hazard most consistently associated with measurable harm. It bears down hardest on the timing of marriage and childbearing, raising rates of child marriage and unions and reshaping whether and when girls can decide to become pregnant. Slow-onset drought acts largely through intensifying economic pressure on families. By contrast, floods and storms leave almost no trace at the regional statistical level. These are not competing findings but different timescales: drought accumulates harm over years, while floods and heat rupture access to services in days.

Climate shocks are cutting girls off from the SRH information and services they most need. More than two in three girls and young women (67.7 per cent) said at least one SRH service became harder to access after the main climate event, and 76.2 per cent had noticed the same for other girls in their community. Menstrual health is the single most widely reported access issue at both the personal and community levels (46.0 per cent and 49.8 per cent, respectively). This represents a loss not only of products but of the clean water, privacy and safe facilities girls need to manage menstruation with dignity. Access to sexual health information and education ranked second, underlining the case for comprehensive sexuality education as a frontline service rather than an optional extra.

Climate shocks are also reshaping girls' sexual and reproductive lives in immediate and visible ways. Two-thirds of girls and young women (66.0 per cent) reported that more girls in their community were being sexually exploited for money, goods or benefits following climate events. One-third (32.6 per cent) noticed increases in unintended pregnancy among their peers, while 11.0 per cent had experienced one themselves. Disruptions to schooling sharply increased risk: girls are over twice as likely to experience unintended pregnancy when their education is interrupted (18.0 per cent vs 8.3 per cent), and nearly twice as likely to face pressure to marry (17.1 per cent vs 9.1 per cent).

The same shocks are deepening risks to girls' safety, choices and health. More than one in four study participants (27.9 per cent) said they had noticed more girls and young women in their community experiencing gender-based violence as a result of a climate-related event. This rises to 47.6 per cent if the main climate event was drought. Girls and young women personally reported being married before the age of 18 (11.0 per cent) and direct pressure to marry or become pregnant (9.1 per cent). They also described a sustained erosion of maternal and newborn health (miscarriage, stillbirth, premature birth and low birth weight) linked to malnutrition, missed antenatal care, unsafe journeys to distant facilities, post-flood disease and acute stress.

These burdens fall most heavily on the girls whose rights were already least secure. Disruption is consistently sharper for girls from minority groups, those in rural and agriculture-dependent households, and those affected by drought, with Zimbabwe showing the most acute community-level risks and Peru the highest personal impacts. This is, at its core, a question of climate justice and sexual and reproductive justice: the girls bearing the steepest consequences are those least responsible for the crisis, and a climate response that is gender-neutral or that treats girls as a single group will by design miss those it most needs to reach.

The evidence also points to clear levers for action. Across every strand of the statistical analysis, girls' education emerged as the single most stable protective factor, and because the clearest channel of harm is economic, protecting household income through social protection and income support is an equally important point of intervention. Yet sexual and reproductive health and rights (SRHR) remain marginalised in national climate adaptation plans and receive negligible climate finance.

Girls themselves are already leading responses and pointing to solutions. They describe drawing on family, peer networks and collective action to cope, even under severe constraint. They are clear on priorities: engaging parents and community leaders in sexual health awareness (26.9 per cent), strengthening school-based sexuality education (24.4 per cent), and training health workers to provide adolescent-friendly care (24.0 per cent). Above all, they call to be heard: 39.1 per cent identified listening to girls' own ideas as the most important way to include them in decision-making after climate events. With 81.5 per cent concerned that future climate shocks will worsen their SRHR outcomes, their message is urgent: effective responses must place girls and young women at the centre.

These findings describe current conditions, not the worst case. The hazards examined in this report are intensifying, and the pressures they place on girls' sexual and reproductive health and protection will compound rather than stabilise. They will hit hardest in fragile and conflict-affected settings, where health systems are weakest and displacement is highest.

The evidence assembled here is sufficient to act upon. It points to a set of priorities for governments, donors and humanitarian and development actors:

- **Prioritise SRHR in climate and finance.** SRHR is almost invisible in the plans and budgets that decide how countries adapt to climate change. Governments should recognise SRHR as a core component of adaptation and resilience in national climate policies and ring-fence a

defined share of climate and humanitarian finance for it. A defined share of that finance should be channelled directly to local, national and girl-led organisations on flexible, multi-year terms. The debt burden carried by low-income countries should be reduced so that more finance is available, recognising that climate change is bearing down hardest on those least responsible for it.

- **Keep SRHR information and services, including protection response and comprehensive sexuality education, running as part of emergency response.** Clinics should remain open where possible, and contraceptive supplies and menstrual products made available as part of disaster response. Mobile clinics, health workers and SRHR information campaigns also need to be embedded in the response, alongside longer-term strengthening of climate-resilient health systems that include adolescent SRHR. Services should be inclusive and age- and gender-responsive, provided free from stigma, discrimination and coercion by trained health workers, and delivered as part of universal health coverage. Emergency shelters and other response sites should have safe spaces for girls and women, with appropriate support for girls facing gender-based violence or pressure to marry.
- **Keep girls in school and plan for uninterrupted education.** Schools are critical centres for information, support and safety for girls. Education protects against child marriage and unions as well as gender-based violence. It also opens doors to future employment and economic empowerment, which promotes gender equality and safety. Education, including comprehensive sexuality education delivered both in and out of school, needs to be at the forefront during a crisis. Funds and plans must be in place to keep all girls and young women learning (including pregnant adolescent girls and new mothers) through measures such as online and offline distance learning during a crisis as well as active tracking and re-enrolment of girls who drop out after a shock. We call on authorities to ensure schools are kept open and free for all children.
- **Break the economic drivers of child marriage, unintended pregnancy and exploitation.** As climate and economic shocks push child marriage and unions, sexual exploitation, unintended pregnancy and school dropout rates upwards, prevention must intensify in the hardest-hit contexts and should be built into climate and emergency responses. Governments must ensure continuous access to SRHR information and services, and support food provision, livelihoods and infrastructure for families under economic pressure.
- **Involve adolescent girls and young women in shaping and implementing any solutions designed in their name, ensuring they have meaningful representation in climate governance, adaptation planning and climate finance decision-making.** Girls and young women are calling for financial and practical support for youth-led approaches to crisis planning, including leadership training, safe spaces, practical help to attend meetings, and support to run community awareness campaigns about the importance of SRHR during climate shocks. Responses should recognise girls as peer educators and early-warning monitors in their communities, not only as beneficiaries.
- **Design and target responses for the girls most at risk.** This includes adolescent girls from minority and Indigenous groups, girls with disabilities, displaced and migrating girls, those in remote areas, girls in the highest-risk climate settings, and married, in-union, or pregnant girls. Reaching them requires collecting disaggregated data and abandoning gender-neutral, one-size-fits-all responses.

The voices captured in this research expose the everyday reality of climate change: information and services that fail when they are needed most, safety that erodes, and choices that narrow. While the contexts vary, the patterns are strikingly consistent. Yet these same voices point to the way forward. Safeguarding and enabling girls and young women to enjoy their rights under climate stress is achievable with sustained political will, coordinated action, and a response that listens to girls, relieves the pressures bearing down on them, and invests in the futures they choose.

1. Introduction

1.1 Why SRHR matters for girls and young women

Adolescence and early youth are critical stages of life marked by rapid physical, emotional and social changes. During this period, girls and young women begin forming relationships, exploring their sexuality and making decisions that have long-term impacts on their health and wellbeing. These transitions make access to sexual and reproductive health services, information and rights essential.¹¹

At the same time, girls and young women face heightened exposure to sexual and gender-based violence, sexually transmitted infections, unintended pregnancy and unsafe abortion. Despite these risks, they are often unable to make autonomous decisions regarding their sexuality, marital status and reproductive lives. These constraints stem not only from gender norms, pressure from partners or families, and restrictive laws and policies,¹² but are also deeply interconnected with poverty and broader forms of social injustice. Barriers such as age restrictions, lack of confidentiality and mandatory reporting by service providers further limit access to essential services for girls and young women.

The transition to legal adulthood means that young people will encounter new environments where they may experience new vulnerabilities. Without supportive frameworks and accessible SRHR information and services that respond to gender and age, these vulnerabilities can deepen, increasing the risk of violence, exploitation and poor health outcomes. These same gaps can also constrain girls' and young women's ability to stay in education, secure decent work and live independently.

SRHR encompasses more than the absence of illness; it is central to enabling girls and young women to lead healthy and empowered lives. It includes the right to make informed decisions about their own bodies, relationships, sexuality and reproductive choices, as well as the ability to access accurate information and respectful, confidential services and support. Key components include comprehensive sexuality education within and outside the education system, menstrual health, access to contraception (including emergency oral contraceptives), safe pregnancy and childbirth care, prevention and treatment of sexually transmitted infections (including HIV), comprehensive, survivor-centred care for sexual violence survivors and safe abortion services.

When girls and young women can exercise their sexual and reproductive health and rights, they are better equipped to stay safe, avoid harmful coping behaviours, pursue education and employment, and build healthy relationships with themselves and others. Ensuring these rights and services are realised during climate crises (including both sudden disasters and slow-onset changes) is critical not only to individual wellbeing but to broader gender equality and social development. There are many challenges to these crucial rights and services, including cuts in funding, conservative policy initiatives and anti-rights movements, and a sheer lack of understanding of the importance of this issue. But increasingly, there is also the climate crisis, which destroys homes and livelihoods and is putting economic and social pressures on the people and communities least equipped to withstand them.

1.2 The climate crisis: a threat multiplier to SRHR

The science is clear: to avert the worst impacts and preserve a livable planet, climate change needs to be tackled as a matter of urgency. The three most recent years are the hottest ever recorded. In 2024, the global average temperature reached 1.6°C above pre-industrial levels – the warmest year on record; 2023 followed as the second hottest at 1.48°C above pre-industrial levels; and 2025 ranked third at 1.47°C above pre-industrial levels. Notably, despite being slightly cooler than 2024, 2025 was the warmest on record without the natural warming boost of an El Niño event, underscoring that the underlying warming trend is accelerating independently of natural climate variability.

Climate change exacerbates existing, deep-running inequalities between countries and among communities.¹³ It is also having a devastating and often unnoticed impact on the sexual and reproductive health and rights of girls and young women:

1. Climate change undermines SRHR among girls and young women through both direct and indirect pathways. Climate shocks (e.g. heatwaves, floods, droughts and storms) disrupt health systems, interrupt education (including access to comprehensive sexuality education) and social protection systems, and put households under strain. Girls and young women are

particularly affected because their access to SRHR information and services and their ability to exercise reproductive autonomy are especially sensitive to these disruptions.^{14,15}

2. Extreme weather can damage health infrastructure, interrupt supply chains for contraceptives and essential medicines, and divert limited health resources towards emergency response.^{16,17}
3. At the household level, climate-related shocks can increase reliance on harmful coping mechanisms such as child marriage and unions, sexual exploitation in exchange for money, goods or benefits, and withdrawing girls from school.^{18,19,20,21}
4. Climate stress is also associated with increased sexual and gender-based violence and displacement, both of which undermine SRHR and bodily autonomy.^{22,23}

While much of the documented evidence focuses on acute climate shocks, a growing body of research shows that slow-onset climate processes such as water scarcity, environmental degradation and prolonged drought can produce equally severe and cumulative risks for girls and young women.

Girls and young women living in low- and middle-income countriesⁱ are disproportionately affected by poverty, entrenched gender norms and limited access to information and services, which compound their vulnerabilities and increase the risk of food insecurity, school dropout, sexual violence or exploitation, sexually transmitted diseases, adolescent and unintended pregnancies, and unsafe abortions.²⁴ As climate shocks intensify and become more frequent, they risk eroding hard-won progress in youth SRHR and widening existing inequalities between and within communities.

Climate change and SRHR are often treated as separate policy domains, yet they are interconnected issues that disproportionately affect girls and young women. The siloed approach creates a *double invisibility*, where climate policy overlooks gendered health impacts and reproductive justice while SRHR advocacy underestimates climate as a threat multiplier to SRHR, bodily autonomy and health.

2. Conceptual framework

This report employs a pathways-based framework to examine how climate shocks can translate into adverse SRHR outcomes for adolescent girls and young women in low- and middle-income countries. While many factors shape SRHR and protection outcomes, our analysis focuses specifically on climate-related pathways operating within contexts of systemic gender inequality. The framework is our own. It was developed for this report by synthesising the disruption pathways most consistently evidenced in the literature reviewed in [Section 4](#). It is offered as an analytical structure for this study rather than a general theory of the climate-SRHR relationship.

2.1 The framework structure

Both rapid-onset climate shocks (such as floods, cyclones and heatwaves) and slow-onset climate processes (such as prolonged drought, groundwater depletion, coastal erosion and declining water quality) activate three disruption pathways, producing four focal SRHR outcomes.

Pathway 1: Health system breakdown

Climate disasters can destroy or render inaccessible the infrastructure delivering SRH services, disrupting clinics, roads, supply chains and health worker availability. This includes infrastructure damage caused by storms, floods and other disasters, which cut off or restrict access to critical health services. When facilities close or when there is a shortage of medicine and medical equipment, adolescent girls and young women lose access to contraception, antenatal care and safe delivery services.

Pathway 2: Household economic pressure

Climate shocks devastate livelihoods when droughts limit production; floods damage ecosystems, destroy assets and limit mobility; and extreme weather disrupts markets. The resulting income loss and food insecurity heighten household stress. Families resort to maladaptation, such as withdrawing girls from school and arranging early marriages and unions to reduce household burdens. Economic

ⁱ As per World Bank classification, see endnote 24.

migration is a further consequence as households or individual family members move in search of income and livelihood opportunities. This can leave adolescent girls and young women without the protection and supervision of key family members, increasing their vulnerability to sexual and gender-based violence and exploitation.

Pathway 3: Societal protection collapse

Climate disasters fracture social safety nets that normally protect adolescent girls. Schools close, separating girls from protective environments. Displacement scatters families and communities. Overcrowded shelters lack privacy and security. Justice systems, helplines, and health and protection services become inaccessible.

Together, these three pathways structure our analysis. The next section sets out the four SRHR outcomes they produce.

2.2 Four focal SRHR outcomes

The focal SRHR outcomes are the dimensions this report measures across all three research methods, namely the literature review, secondary statistical analysis and primary research with girls and young women. These outcomes are not caused by climate change alone; they are pre-existing but intensified through the pathways, which are indicated in brackets below.

Outcome 1: Disrupted contraception access. Health system breakdown closes clinics, depletes contraceptive supplies and displaces healthcare providers, leaving girls and young women without contraceptive counselling or information about available services (Pathway 1), while economic hardship prevents girls and young women from affording transport or prioritising health-related costs (Pathway 2), directly limiting their ability to decide if or when to become pregnant.

Outcome 2: Sexual and gender-based violence. Economic stress and food insecurity trigger household tension and intimate partner violence (Pathway 2), while displacement exposes girls and young women to unsafe environments such as overcrowded shelters without privacy, alongside weakened community safeguards and inaccessible justice systems (Pathway 3). More broadly, climate-related livelihood loss, displacement and household conflict exacerbate existing gender inequalities, heighten violence against women and girls, and increase their risk of sexual exploitation and abuse (Pathways 2 and 3).

Outcome 3: Child marriage and unions. This is a pre-existing practice rooted in gender inequality and social norms, which frequently functions as an economic coping mechanism during crises and is intensified by climate-related shocks (Pathway 2). Families marry off daughters or place them in unions to reduce household burden, secure a bride price for emergency income, or provide perceived 'protection' during displacement (Pathways 2 and 3). In contexts of climate-related insecurity, adolescent girls can become a resource available for economic survival and family security,²⁵ reinforcing the drivers of child marriage and unions. School closures and weakened community monitoring systems remove further protections (Pathway 3). Once married, girls can lose contraceptive autonomy, face pressure to have a baby immediately or experience heightened risk of sexual violence and unintended pregnancy.

Outcome 4: Unintended pregnancy. This outcome is interconnected with the other three SRHR outcomes, and the relationship is not strictly linear: unintended pregnancy can itself drive child marriage and unions, and both are shaped by the same intersecting climate-related disruptions. The three preceding outcomes each increase the risk of unintended pregnancy, and their effects compound as climate impacts intensify. Two consequences follow directly. Adolescent pregnancy carries heightened risks of maternal mortality and morbidity, which climate-related disruption to antenatal and delivery care compounds further. It also represents a loss of bodily autonomy, removing girls' control over their own bodies and future life course.

Cross-cutting access dimension – menstrual health and dignity. While this framework centres on the four focal outcomes above, menstrual health and dignity emerged across the research as the single most widely reported access issue and is treated throughout as a cross-cutting dimension rather than a separate outcome. It is shaped by the same disruptions: health system breakdown empties shelves of menstrual products and damages the water and sanitation infrastructure girls rely on (Pathway 1),

while household economic pressure forces families to deprioritise menstrual products against food and water (Pathway 2). The loss of safe water, privacy and facilities compounds the loss of the products themselves. As the findings show, nearly half of girls and young women reported that menstrual products or clean water to manage menstruation became harder to access after the main climate event – the clearest expression of how climate shocks directly affect girls’ everyday dignity and bodily autonomy.

2.3 Cyclical dynamics

These outcomes are mutually reinforcing. Gender-based violence deepens gender inequality and poverty, increasing vulnerability to future climate events. Child marriage and unions perpetuate cycles of poverty and limit adaptive capacity. The relationship between unintended pregnancy and child marriage and unions is also bidirectional: just as child marriage and unions increase the risk of unintended pregnancy, pregnancy itself (including from sexual violence) can trigger forced marriage, perpetuating cycles of harm and limiting girls’ agency, bodily autonomy and life chances.²⁶ Unintended adolescent pregnancies reduce educational attainment and economic opportunity, limiting resilience. Critically, climate-related impacts on sexual and reproductive health and rights experienced today increase vulnerability to future climate crises.

Figure 1: Diagram of conceptual framework

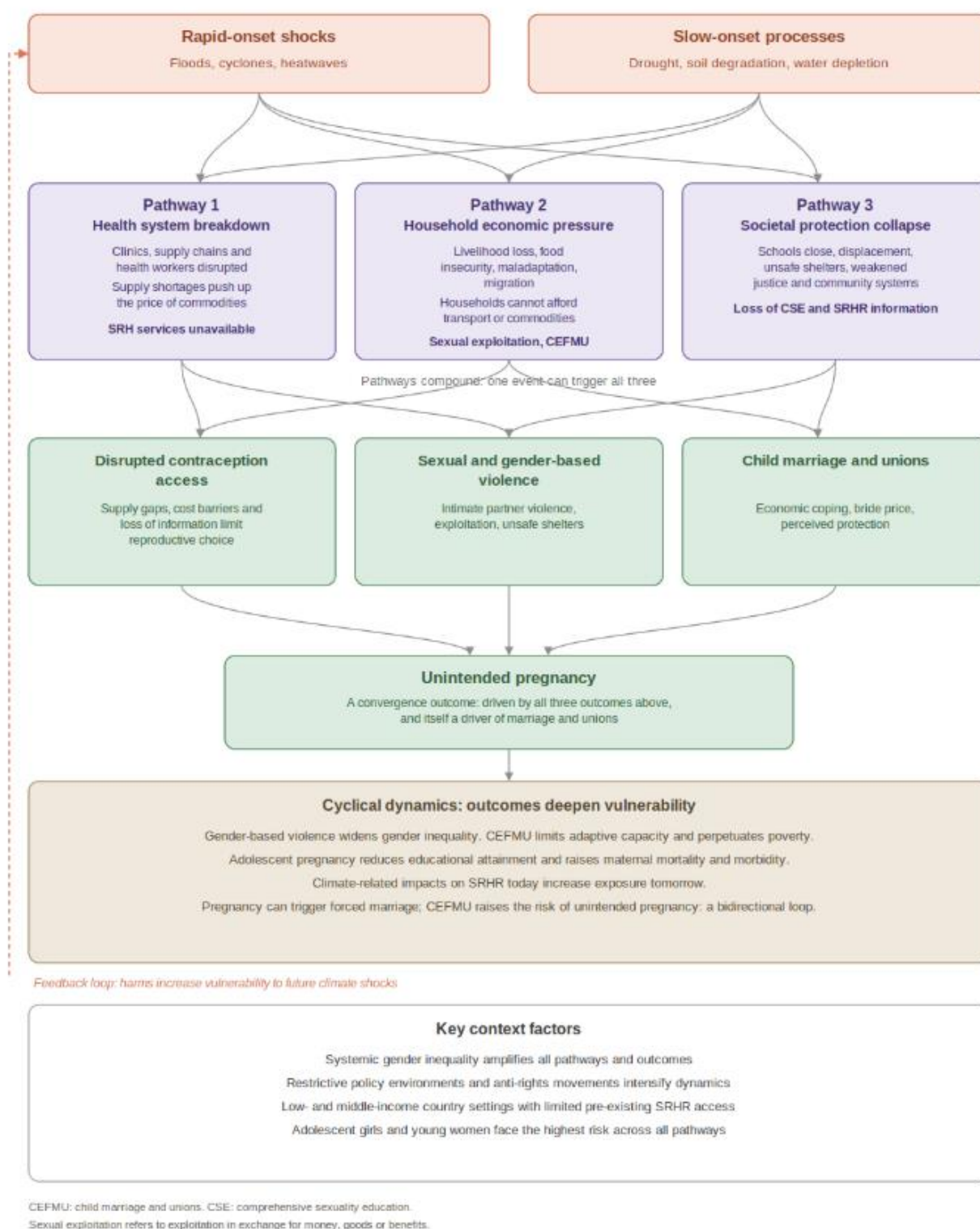


Diagram developed using Claude Opus 4.8.

2.4 Intersecting vulnerabilities

Climate-SRHR pathways do not affect all girls equally, and experiences of climate-related harms are shaped by intersecting systems of power and exclusion. Across all four outcomes examined in this

report, disruptions fall hardest on those whose access was already most precarious: adolescents, particularly girls aged 10 to 14; those with disabilities; displaced and refugee girls and young women; Indigenous, Afro-descendant girls and those from ethnic minorities; those from rural areas; and those with diverse sexual orientations, gender identities and sex characteristics. This pattern runs as a consistent thread across all four outcomes and is not repeated in full for each one but should be held in view throughout.

Pre-existing gender inequalities: Restrictive gender norms, limited mobility, economic dependence, and exclusion from education and decision-making amplify harmful and discriminatory pathways. Where patriarchal attitudes are most entrenched, climate shocks are more likely to trigger harmful coping strategies, including child marriage and unions and sexual exploitation in exchange for money, goods or benefits, while also reducing access to SRH information and services.

Climate shocks amplify existing norms rather than creating new ones: The pressure on girls to marry, leave school or take on adult roles during crises does not arise from climate change alone; it works by intensifying gender norms that already constrain girls' lives. Climate stress raises the economic and social value families perceive in early marriage, such as securing a bride price, reducing the number of mouths to feed, or managing reputation and perceived safety when schools close and girls are at home. As a result, pre-existing norms are activated more often and more forcefully. This helps explain a key pattern in the secondary analysis: prolonged drought increases recent under-18 unions most where early marriage is not yet entrenched, broadening the population at risk by drawing in households that would not otherwise have married a daughter early, rather than simply deepening the practice where it is already common. Norms are therefore both a driver of harm and a point of intervention, since the same norms that climate stress amplifies can be shifted.

Age: Adolescence (10-19 years) is a critical period when physical, social and economic transitions can shape life trajectories. This span is not uniform: early adolescence (10-14 years) and late adolescence (15-19 years) carry distinct risks and rights implications. Girls aged 10 to 14 are children. Pregnancy in this group can only result from sexual violence while child marriage and unions at this age normalise that violence across the life course, amounting to torture or cruel, inhuman and degrading treatment. Adolescent girls across the band face limited household decision-making power, restricted access to SRHR information and, in some contexts, age-based contraceptive restrictions. Exposure to sexual violence and the risk of child marriage and unions are heightened, and these pressures deepen further during crises.

Disability: Girls and young women with disabilities face compounded barriers during climate emergencies, where inaccessible routes, emergency shelters and health facilities exclude them from access. Evidence indicates they already experience higher levels of violence, including sexual violence and intimate partner violence²⁷ – risks that intensify during crises. Climate-induced displacement can also separate girls from specialised care and support services, assistive devices for mobility, and social networks. Despite these elevated risks, girls and young women with disabilities are underrepresented in disaster planning, adaptation strategies and even everyday climate policies that dictate how communities prepare for environmental changes.²⁸

Displacement status: Displaced and refugee populations can experience all three pathway disruptions simultaneously. Cut off from health services, social networks and community protections, they face compounded vulnerability to exploitation, sexual violence and barriers to contraception.

Intersecting marginalisation: Indigenous, Afro-descendant and ethnic minority girls, rural populations and those with less schooling face several overlapping vulnerabilities at once. Climate impacts add to the discrimination they already face, showing up as worse food insecurity, a higher risk of being displaced and greater exposure to gender-based violence. Despite Indigenous girls' roles as community leaders with a deep knowledge of local environments and climate, their exclusion from governance perpetuates these risks. Adolescent girls with diverse sexual orientations, gender identities and expressions, and sex characteristics face compounded risks, including heightened exposure to family-based violence and rejection. Yet they remain almost entirely absent from climate-SRHR research. This evidence gap is itself a form of exclusion.

No climate or SRHR response will reach the most marginalised girls without explicitly accounting for how these intersecting vulnerabilities shape who is harmed, how and by how much.

3. The compounding crisis: policy rollbacks and climate disasters

Adolescent girls and young women face intensifying threats to their sexual and reproductive health and rights from multiple directions. Conservative policy shifts and anti-rights movements are restricting access to services and information in many contexts. In 2016, the government of Uganda implemented a ban on comprehensive sexuality education in schools, framing SRHR programmes as promoting different values.²⁹ In Nicaragua, which has the highest adolescent pregnancy rates in Latin America, abortion has been criminalised without exception since 2006, and the closure of feminist and human rights non-governmental organisations (NGOs) has further hollowed out SRHR service provision and information.³⁰

This pattern of rollback is not isolated to low- and middle-income countries. US foreign policy decisions continue to shape the SRHR landscape across regions, often with significant material consequences. In 2025, the International Planned Parenthood Federation (IPPF) reported that the US government was withholding more than US \$9.7 million worth of US-funded contraceptives, of which 77 per cent were destined for five countries in the African region.³¹ Tanzania alone was supposed to receive 1,031,400 injectable contraceptives and 365,100 implants,³² none of which were delivered. While the effect of this specific consignment has not been modelled, the broader withdrawal of US family planning support is projected to result in tens of millions of additional unplanned pregnancies and millions of unsafe abortions across affected countries by 2030.³³

At the same time, climate-related disasters are intensifying, leading to disrupted health infrastructure, displaced populations and deepening poverty. In Zimbabwe, Cyclone Idai disrupted family planning services across Chimanimani and Chipinge, leaving tens of thousands of women without access to contraception.³⁴ A rapid gender analysis in five coastal districts of Bangladesh also found that 61,889 pregnant and lactating women urgently needed reproductive health services in the wake of Cyclone Remal in 2024.³⁵ Similarly, after Hurricanes Eta and Iota hit Honduras in 2020, an estimated 180,000 women of reproductive age could not access family planning services.³⁶ In Senegal, where safe abortion is highly restricted and access to post-abortion care is severely limited, girls who experience climate-related displacement and unintended pregnancy have virtually no safe recourse.³⁷ The compound effect is critical: when services are already restricted or under-resourced, climate shocks can push them past the breaking point.

These projections are already materialising on the ground. The withdrawal of US development assistance in 2025 has disrupted contraceptive supply chains across many of the countries that relied on it, as the US had previously covered around 41 per cent of global family planning funding before largely halting it.³⁸ In Kenya, terminated contracts and stockouts left supplies projected to last under five months, well below the recommended minimum, and in Zimbabwe the abrupt end of programmes funded by the United States Agency for International Development (USAID) terminated health worker contracts and halted community-based distribution almost overnight.³⁹ As donor procurement falls away, the burden lands on households whose ability to pay is already eroded by the economic pressures set out in Pathway 2.

The interaction between policy rollbacks and climate disasters amplifies the impact of both: when contraception supplies are already restricted by funding cuts or import bans, an extreme weather disruption to supply chains becomes even more destructive. When safe abortion services are already criminalised, an increase in climate-related unintended pregnancies can force girls and young women into unsafe abortions, putting their health and lives at risk. In crisis and displacement contexts, these risks are further intensified when health systems are unable to manage unsafe abortion complications, when girls and young women lack safe housing or a place to recover, and when economic precarity limits their ability to seek care, making already unsafe abortions even more dangerous.

This compounding dynamic is particularly acute where conservative policies have already weakened SRH systems, where humanitarian responses prioritise immediate survival over sexual and reproductive health or where constrained civic spaces limit girl-led responses.

4. Literature review

4.1 Evidence landscape

This section synthesises current research on the four focal outcomes identified in the conceptual framework: disrupted contraception access, sexual and gender-based violence, child marriage and unions, and unintended pregnancy. The literature review draws on scoping and systematic reviews, qualitative and quantitative studies (peer-reviewed and grey literature), policy analyses and emerging quasi-experimental research.

4.2 Disrupted contraception access

During disasters, adolescent girls and young women are frequently overlooked, constrained by tradition, and torn from school, family structures and social networks at precisely the moment when their need for contraceptive access becomes most acute.⁴⁰ In this context, access to contraception becomes a vital lifeline yet remains largely unattainable as climate disasters compound existing gender inequalities, poverty and weak health systems.

Climate-related disasters undermine girls' and young women's access to contraception through multiple overlapping disruptions, including infrastructure damage, reduced mobility, health provider shortages and health supply-chain issues, which tend to exacerbate existing gender and economic inequalities.⁴¹ Findings from Brown et al. (2025) report a large decrease in contraceptive uptake across multiple low- and middle-income countries during extreme heat or heavy rainfall, and evidence across multiple studies concludes that these disruptions translate into reduced contraceptive autonomy, decreased use of modern contraceptive methods and heightened exposure to unintended pregnancies.^{42,43} Compounding this vulnerability, climate-induced emergencies and displacement regularly trigger surges in sexual and gender-based violence due to the breakdown of protection systems and law enforcement.⁴⁴ Consequently, the likelihood of pregnancy resulting from sexual violence escalates sharply during these crises, yet the critical time window required for emergency oral contraception is routinely compromised by the concurrent collapse of local supply chains and reproductive health services.^{45,46} While precise global estimates remain limited, current research suggests significant levels of unmet need, with approximately 11.5 million women already experiencing climate-related loss of access to contraception, a figure projected to rise to 14 million as climate hazards intensify.⁴⁷

4.2.1 Pathways from climate shocks to lack of access to contraception

Climate shocks disrupt access to contraception through interconnected system, economic and protection failures. These pathways determine whether girls and young women can physically reach services, afford them, or safely access information and support, directly shaping their ability to prevent unintended pregnancy.

Pathway 1: Health system breakdown – infrastructure, supply chains and physical access

When climate disasters strike, the damage to clinics, roads and storage systems can cut communities off from contraception supplies for prolonged periods. The Philippines has always faced annual typhoon seasons, but climate change is intensifying their severity: the frequency of super typhoons in the Philippine Area of Responsibility increased by over 100 per cent between 2003 and 2020, with storms now arriving more powerfully, less predictably and increasingly in rapid succession.⁴⁸ A World Weather Attribution analysis found that climatic conditions that enabled an unprecedented cluster of typhoons affecting the Philippines in 2024 were nearly twice as likely to occur in today's climate as in a pre-industrial climate.⁴⁹ Super Typhoon Rai (Odette) in 2021 (the third-strongest storm ever recorded in the northern hemisphere) damaged 141 health facilities and led to the complete suspension of family planning services across the worst-affected provinces, leaving more than 2.3 million women of reproductive age and 91,000 pregnant women without access to reproductive care.⁵⁰

In Mozambique, back-to-back cyclones in 2019 severed the main transport arteries into Sofala province, creating what organisations described as a “contraceptive desert” in which displaced women had zero access to injectables or pill-based contraceptives for up to 12 weeks.⁵¹ The 2022 Pakistan floods submerged a third of the country, with nearly 2,000 health facilities affected and an estimated 1.6 million

women of reproductive age in need of reproductive health services, alongside acute shortages in essential supplies such as contraception and clean delivery kits.⁵² In Honduras, cold-chain failures across multiple SRH clinics during Hurricanes Eta and Iota forced the disposal of damaged contraceptive stocks and interrupted the provision of injectables, implants and emergency contraception. These disruptions were acutely compounded by the country's 2020 ban on emergency oral contraception, which had already removed that method from state supply chains before the storms struck.

In Nepal, the increased frequency of heavy rainfall and landslides regularly blocks small roads and mule tracks that serve as the only supply lifelines to high-altitude health posts.⁵³ In Puerto Rico, Hurricane Maria in 2017 left 66 of 69 hospitals non-functional in its immediate aftermath, while widespread power outages and infrastructure disruption severely constrained access to reproductive health services, with providers forced to operate without electricity and with limited capacity to deliver care.⁵⁴ In Bangladesh, both rapid-onset floods and slow-onset disasters, including rising sea levels, create persistent contraceptive stockouts in rural and remote areas, demonstrating that the threat extends well beyond sudden acute events.⁵⁵

The disruption to the 'last mile' of delivery (such as to a hospital, health clinic or a patient's home) is particularly acute where community health workers are the primary distribution mechanism. Following the 2022 Pakistan floods, a rapid assessment reported that Lady Health Workers – the backbone of last-mile contraceptive delivery – found their travel routes impassable (only accessible by boat), and many were themselves displaced.⁵⁶ Similarly, research from the Jinja and Mayuge districts of Uganda found that 73 per cent of respondents could not access contraceptives during climate crises due to damaged roads, destroyed clinic infrastructure and power outages.⁵⁷

Climate disasters also damage the infrastructure that connects communities to care, not only the facilities themselves. Floods and landslides wash out the roads and bridges on which both contraceptive supplies and the women who need them depend, so a clinic left physically intact can still become unreachable. Geographic information system modelling of Zambia's Barotse Floodplain shows how seasonal flooding renders roads impassable and sharply reduces women's ability to reach maternal services, while during Nepal's 2024 monsoon floods, swollen rivers destroyed roads, bridges and health posts, severing access for supplies and women alike.^{58,59} For girls and young women reliant on a single nearby facility, even a temporary loss of access can mean a missed contraceptive resupply at the moment risk is highest.

Beyond physical destruction, energy scarcity presents a critical and often overlooked barrier. Health centres without reliable power cannot adequately store temperature-sensitive contraceptives, leading to supply shortages and interrupted services. Uganda, which relies heavily on hydropower along the Nile River, is particularly susceptible: climate-induced droughts lower reservoir inflows and decimate generation capacity, forcing rolling blackouts that cut power to rural health centres, while flash floods inundate transmission lines and sever electricity supply to local clinics.⁶⁰ During Cyclone Eloise in Mozambique, power outages caused cold-chain failures across multiple facilities.⁶¹

Health systems also suffer a less visible breakdown when financial resources and personnel are diverted from SRH services to address immediate emergency disaster relief.^{62,63} The reassignment of healthcare providers to trauma care or disease surveillance reduces the availability of contraceptive counselling and follow-up. Facilities may lose female providers altogether, reducing adolescent girls' willingness to seek care. Reduced opening hours and emergency-only operating procedures mean that even a physically intact facility may effectively cease to deliver SRH services. Because the facility remains physically open, this kind of disruption rarely registers in routine health system data, yet is no less consequential for the women and girls who depend on it.

Pathway 2: Household economic pressure – affordability barriers

Climate-related disasters not only destroy physical structures but also erode the economic foundations that enable girls and young women to access and afford contraception. For the most marginalised girls and young women, this sets in motion a series of compounding harms that ultimately strip away reproductive autonomy. This affordability barrier is two-sided: not only does a climate-related economic shock reduce the income available to pay for care, but disruption to supply chains and transport routes

can simultaneously drive up the price of contraceptive commodities as formal stocks run low and women are pushed towards costlier informal or black-market sources.

Climate impacts erode household income before they raise the cost of care. In economies dependent on rain-fed agriculture, slow-onset changes such as declining yields, costlier inputs and rising food prices steadily reduce disposable income, while extreme events destroy a season's crop outright. In Senegal, recurrent drought and the economic shocks that accompany it (including rising prices) erode household assets and livelihoods, with direct consequences for the affordability of essential resources and care.⁶⁴ For women dependent on seasonal agricultural income, the cost of reaching and paying for reproductive health care can be prohibitive. In rural northeast Senegal, women below the poverty line routinely delay or forgo care they cannot afford.⁶⁵ The effect on access is direct: after Peru's 2023 Coastal El Niño floods, women in Piura described being unable to reach their check-ups because roads were waterlogged and there was no money for transport.⁶⁶ For adolescents and young people, who often have little or no independent income, even modest transport, consultation or commodity costs can foreclose access where services nominally still exist.

The trickle-down effects of climate disasters are perhaps most acutely felt through food and water insecurity. Rising temperatures, prolonged droughts and degraded arable land reduce agricultural yields and destabilise household food security. In response, families withdraw girls from schools to contribute to household survival and are more likely to arrange early marriage as a survival strategy, removing girls from SRH education and severing access to school-based contraceptive services.⁶⁷ Once married, young adolescents are frequently subject to sexual relations without knowledge of or access to contraception, perpetuating cycles of unintended pregnancy and harm. Dijkerman et al. (2025) document these converging consequences across multiple settings, linking climate events to disrupted access to contraception in Zambia and South Africa, and drought to early sexual exposure among adolescents in Lesotho – all contexts in which contraceptive access was already fragile before disaster struck.⁶⁸

Pathway 3: Societal protection collapse – displacement and safeguards

The collapse of community and social support networks during climate shocks can sever the savings and mutual support groups (such as village savings and loan associations) through which some women and girls share SRH information and pool the resources needed to reach services and pay for supplies.⁶⁹ Displacement into crowded shelters further removes privacy and safety, making it difficult to seek or use contraception discreetly.⁷⁰ Temporary and mobile shelters also frequently lack adolescent-friendly SRH supplies and services, so that even where some provision exists, it may neither reach nor suit younger users, reducing uptake at the very moment risk is highest.⁷¹ For displaced adolescents in particular, separation from trusted networks and familiar services creates a critical gap in contraceptive continuity.

Previous qualitative evidence in coastal Bangladesh illustrates this vividly: women reported losing their contraceptive pills during evacuations and having no safe route to replacing them, being unable to cross flooded paths to travel to their nearest clinic and fearing harassment on their way to shelters or health centres.⁷² These barriers are most acute for the groups identified in Section 2.4 on intersecting vulnerabilities.

Safety concerns present a distinct but related barrier. Gender-based violence and intimate partner violence intensify during climate events, with profound implications for contraceptive decision-making and access.⁷³ These risks are further compounded by service disruptions, leaving adolescent girls reliant on informal networks for contraception and care. As a result, they lose access to safe, consistent contraception at precisely the moment when their need for it is most crucial.

The consequences are particularly grave when girls and young women experience sexual violence and become pregnant through rape. Timely post-rape care, including emergency contraception to prevent pregnancy and post-exposure prophylaxis to prevent HIV transmission, depends on functioning facilities and intact supply chains. Yet it is precisely this care that becomes unavailable when climate disasters disrupt supply chains, close facilities and sever transport routes. Where a pregnancy is already established, whether resulting from rape or not, safe abortion is the remaining means of preventing forced motherhood. Yet the same disruptions to facilities, supply chains and affordability described above apply equally to abortion care and are compounded by legal restrictions or criminalisation across most of the study countries, pushing girls towards unsafe methods at the point of greatest vulnerability.

For very young adolescent girls, who face elevated health risks from pregnancy and often encounter significant barriers to accessing sexual and reproductive health services, climate emergencies can create particular harms by increasing exposure to sexual violence while simultaneously disrupting access to contraception and other essential SRHR services.⁷⁴ A girl in this situation has virtually no pathway to prevent a pregnancy or HIV infection resulting from rape.

4.3 Gender-based violence

4.3.1 Evidence of climate-GBV linkages

Gender-based violence is already a global epidemic that climate change is intensifying. Globally, one in three women have experienced physical and/or sexual violence at least once in their lifetime,⁷⁵ though these figures likely underestimate the true scale as only a small fraction of survivors file a formal report. Gender-based violence has profound consequences. These include SRHR-related impacts such as higher risk of HIV infection and unintended pregnancies, as well as other physical injuries, psychological trauma, and long-term social and economic effects.

Climate change compounds this crisis through multiple intersecting pathways. Climate shocks exacerbate existing gender inequalities while deepening pre-existing vulnerabilities such as economic stress, food insecurity, social instability and harmful social and gender norms. These conditions reinforce the norms and circumstances that enable violence while simultaneously disrupting the protective systems designed to support survivors. These feedback loops are explored further in the cyclical dynamics outlined in our conceptual framework (see Section 2.3).

Water scarcity also creates conditions for violence beyond the household (a dynamic explored in detail under Pathway 3 below), operating quietly and persistently long before and after any visible disaster.

A growing body of research documents clear associations between climate disasters and increased GBV rates. Several studies across diverse contexts have reported associations between floods, droughts, cyclones and gender-based violence, including sexual, psychological and physical violence.^{76,77,78,79} A systematic review examining 41 countries found consistent evidence linking extreme weather events, including storms, floods, droughts, heatwaves and wildfires, with various forms of gender-based violence.⁸⁰

Research across sub-Saharan Africa reveals clear patterns. Exposure to prolonged and extreme drought, lasting 8-43 months within a 48-month period, was associated with higher odds of sexual violence.⁸¹ More broadly, extreme heat and drought significantly increase rates of intimate partner violence, with projections suggesting a sharp rise under high-emission scenarios by 2050.⁸² In particular, projections indicate that under a 4°C warming scenario, the number of women experiencing intimate partner violence in sub-Saharan Africa could nearly triple from 48 million women in 2015 to 140 million women by 2060.⁸³ By contrast, if warming is held to 1.5°C, the share of women affected falls from 24 to 14 per cent by 2060, against a rise under unchecked warming.^{ii,84}

The heat-violence connection

Global modelling paints a worrying picture, indicating that within a given context, incremental increases in temperature are associated with higher rates of intimate partner violence. Specifically, every 1°C rise above typical local temperatures is associated with a 4.7 per cent increase in intimate partner violence, and under a 2°C warming scenario, approximately 40 million additional women could experience intimate partner violence annually.⁸⁵ Importantly, this relationship reflects the physiological and psychological effects of acute heat exposure and sudden temperature rises, not baseline climate or geography. Heat increases physiological stress and impairs emotional regulation, lowering the threshold for violent behaviour. It is the change in temperature, not the temperature itself, that drives these associations. This means that, without action, climate change could be linked to one in every 10 cases of intimate partner violence by the end of the century.⁸⁶ These risks are compounded for girls in forced or early marriages, where unequal power dynamics already undermine their agency and safety.

ⁱⁱ “One in three” women having experienced physical and/or sexual violence at least once in their lifetime denotes the global lifetime prevalence of violence against women; the 24 per cent and 14 per cent figures are modelled estimates of the share of sub-Saharan African women affected by intimate partner violence within a given period under different warming scenarios. The measures are not directly comparable.

Research on extreme heat reveals particularly concerning patterns. A study in Madrid, Spain, found that the risk of intimate partner femicide increased by 40 per cent in the three days following heatwaves, with corresponding spikes in police reports and helpline calls.⁸⁷ That same study estimated that 28.8 per cent of femicides occurring during heatwave periods could be attributed to heatwave exposure itself (attributable risk).⁸⁸ These findings are consistent across multiple settings. Studies from Russia, the United States and developing countries similarly document positive associations between rising temperatures and violence.⁸⁹ One longitudinal cross-national analysis of 34 countries found that women living in locations 5.9°C warmer on average (a one-standard-deviation difference across the sample) had a 3.7 percentage point higher probability of experiencing intimate partner violence.⁹⁰ These associations are not about where people live, but about what happens to behaviour and stress responses when temperatures suddenly spike, a risk that climate change is making universal.

Intersectional risks

Within the broader pattern of disproportionate impact identified in Section 2.4 on intersecting vulnerabilities, specific evidence documents how this plays out for particular groups. A study in Vietnam highlights that people with disabilities face heightened risks of sexual violence and abuse during disasters and extreme weather events, particularly in emergency shelters where protection measures are often inadequate.⁹¹ In that same study, individuals with visual impairments were found to be disproportionately exposed to sexual violence during crises.⁹² Qualitative interviews in Vietnam also revealed instances of intimate partner violence during periods of isolation caused by floods and storms.⁹³ These findings underscore the intersection of disability, gender and disaster vulnerability.

For Indigenous women, climate change intersects with environmental degradation, gender, ethnicity and political marginalisation to produce layered risks of gender-based violence.⁹⁴ In some contexts, climate stress and militarised resource extraction work together to displace Indigenous communities, with violence used to control land and resources, embedding gender-based violence in wider systems of oppression and environmental exploitation.⁹⁵ In Cambodia, Laos, Myanmar and Vietnam, climate impacts compounded by gender and ethnic discrimination similarly intensify vulnerabilities, manifesting in food insecurity, displacement and heightened exposure to violence.⁹⁶

Double burden of vulnerability

Van Daalen et al. (2022) find that to avoid gender-based violence in shelters or where aid is distributed, some women and girls stay home, increasing their vulnerability to floods, storms or aftershocks.⁹⁷ They end up trading one risk for another. Sexual coercion and harassment by relief workers, which has been documented in conflict and disaster zones, not only adds an immediate harm but also pushes survivors away from essential aid.⁹⁸

4.3.2 Pathways from climate shocks to gender-based violence

As set out in our conceptual framework, climate shocks translate into gender-based violence through three pathways: the disruption of response and protection services (Pathway 1), household economic pressure (Pathway 2), as well as displacement and the breakdown of protective systems (Pathway 3). Each is examined below.

Pathway 1: Health system breakdown – GBV response services

Police stations, courts and legal aid services can become inaccessible during and after climate shocks due to damaged infrastructure, displaced personnel or overwhelmed emergency response systems.⁹⁹ Girls and young women seeking protection orders, reporting sexual violence or fleeing abusive partners may find that justice systems are not functioning when they need them most. Health services, including clinical care for sexual violence survivors (emergency contraception, post-exposure prophylaxis for HIV, and psychosocial support) can be deprioritised during emergency responses due to other pressing needs.¹⁰⁰ GBV helplines and counselling services are also at risk of losing power, connectivity or staffing, further isolating survivors.

Pathway 2: Household economic pressure – livelihood stress and masculinities

Climate-induced livelihood losses heighten household stress, which can trigger gender-based violence.¹⁰¹ Prolonged drought and declining water access intensify this pressure by lengthening the unpaid hours young women and girls spend collecting water and firewood, producing and preparing food, and farming, while reducing agricultural productivity and heightening conflict within households. Women and girls who are dependent on climate-sensitive livelihoods face the highest risk, and that dependence is widespread.¹⁰² Agrifood systems account for 66 per cent of women's employment in sub-Saharan Africa and 71 per cent in southern Asia.¹⁰³ Food insecurity, which climate shocks intensify, shows strong correlations with gender-based violence. A global scoping review confirms that resource scarcity driven by environmental stress directly links to violence against women and girls.¹⁰⁴ These findings underscore how climate shocks amplify household stress and reinforce harmful gender norms and practices. As droughts destroy crops, floods devastate infrastructure, fishing grounds and agriculture, and extreme weather disrupts markets, the resulting strain and food shortages create volatile household environments where violence escalates.

Climate shocks can also destabilise socially constructed masculine roles, particularly ones where men are seen as breadwinners and protectors.¹⁰⁵ When environmental disruption erodes men's ability to fulfil these expectations, the resulting gap between masculine ideals and lived realities can manifest as frustration, loss of status and attempts to reassert power through violence.¹⁰⁶ The Lancet Planetary Health review reinforces this point by linking post-disaster contexts to an increase in various forms of gender-based violence (e.g. intimate partner violence, sexual violence and child, early and forced marriage), where violence becomes a way for men to prove their masculinity after being unable to protect their communities and families from harm.¹⁰⁷ Participatory research in the Sahel records the same dynamic, with women describing men responding violently to their inability to provide food for the household.¹⁰⁸ The study found that intimate partner violence was 25 per cent higher in Uganda, 28 per cent higher in Zimbabwe and 91 per cent higher in Mozambique in regions with severe weather than in regions without it.¹⁰⁹ In rural Peru, rainfall shocks that depress household income have been linked to increased intimate partner violence.¹¹⁰ These findings highlight the importance of addressing masculinities in climate and violence prevention frameworks.

Pathway 3: Societal protection collapse – displacement and safeguards

Displacement following floods or droughts often leads to breakdowns in community safeguards that would normally protect women and girls. Research consistently demonstrates that displacement and resource scarcity increase vulnerability to violence.¹¹¹

Women and girls displaced into temporary shelters, evacuation centres or informal settlements face heightened risk of sexual violence.¹¹² Overcrowding, lack of privacy, inadequate lighting and limited security create enabling environments for perpetrators, increasing the likelihood of harassment, sexual assault and exploitation.¹¹³ Studies across humanitarian settings show that sexual violence is more likely to occur in shared sanitation facilities, poorly lit pathways and during night-time movements within camps or shelters.¹¹⁴ A multi-country analysis found that women in displacement settings reported fear of using toilets after dark, with many reducing food and water intake to avoid night-time bathroom visits.¹¹⁵ Relief distribution sites can compound risks when they lack safe, organised queuing systems or adequate security, exposing women and girls to harassment and assault while accessing essential aid.¹¹⁶

Climate disasters also disrupt the formal and informal systems that normally protect women and girls from violence. These breakdowns occur across justice systems, health services, social support networks and community infrastructure. Displacement disrupts social cohesion and informal community surveillance mechanisms that can deter violence. Separation from familiar social networks and formal protective services reduces access to justice, healthcare and psychosocial support, increasing dependence on informal or unsafe coping strategies. For adolescent girls, displacement can coincide with school closures, which removes a critical protective space, increasing exposure to exploitation, early marriage and trafficking.

Evidence from Bangladesh and India links cyclone exposure to higher emotional intimate partner violence, and qualitative research has documented forced marriage and trafficking around cyclone

events and within shelters.¹¹⁷ In post-cyclone Bangladesh, adolescent girls describe being married off quickly by families who feared sexual violence in crowded shelters or who could no longer afford to support them.¹¹⁸

Informal community protection systems also collapse. Women's groups, youth clubs and neighbourhood networks that provide social support and early interventions are often scattered by displacement or overwhelmed by crisis demands.¹¹⁹ The loss of these informal systems means that warning signs of violence can go unnoticed and survivors cannot turn to these informal mechanisms for help. The convergence of these protection breakdowns creates an environment where gender-based violence occurs with impunity and survivors are left without recourse.

4.4 Child marriage and unions

As defined earlier, child marriage and unions are a fundamental violation of human rights, disproportionately affecting girls, as well as a form of gender-based violence with distinct economic and social drivers.

4.4.1 Evidence of climate-child marriage linkages

Climate shocks do not create new drivers of child marriage and unions, but they intensify existing structural inequalities and gendered pressures, making early marriage appear to be a pragmatic response to crisis. A growing body of empirical work across multiple regions shows a clear association between climate shocks and rising child marriage and unions.¹²⁰

Much of this pressure is slow onset. Where prolonged drought and chronic food and water insecurity erode the livelihoods and assets that households depend on, families increasingly turn to child marriage as a coping strategy.¹²¹ Because these pressures build over months and years, rather than in a single visible disaster, the harms they produce are harder to detect, measure and address.¹²²

Qualitative studies from East Africa show that repeated shocks are disrupting traditional marriage economies: the loss of livestock undermines bride-price systems, which leads families to shift from formal child marriages towards informal, unsanctioned unions, with girls reporting heightened exposure to such unions after crop loss or displacement.¹²³

4.4.2 Pathways from climate shocks to child marriage and unions

Unlike the other three outcomes, the literature does not identify health system breakdown (Pathway 1) as a primary driver of child marriage and unions. Climate shocks act on child marriage and unions principally through economic pressure and protection collapse, as the pathways below show.

Pathway 2: Household economic pressure – child marriage as a coping strategy

Evidence across regions and diverse studies characterise climate change as a *risk multiplier* that accelerates the conditions in which families resort to child marriage and unions as a coping strategy. These are particularly prevalent in climate-vulnerable regions where the practice is already socially accepted, including South Asia, sub-Saharan Africa (particularly west, central, east and southern Africa), and Latin America and the Caribbean. A global scoping review synthesising 24 studies concluded that environmental shocks such as droughts, floods, cyclones, extreme heat and irregular rainfall have disastrous effects on community livelihoods.¹²⁴ These shocks displace families, disrupt education systems, and exacerbate poverty and food insecurity through reduced agricultural productivity, disproportionately affecting adolescent girls and increasing their vulnerability to child marriage and unions in affected communities.¹²⁵

Global-level quantitative modelling evidence is consistent with these patterns: using a structural equation model across 180 countries, Pastén et al. (2025) find that climate vulnerability has a direct and statistically significant effect on rates of child marriage and unions through rising poverty and intensified gender discrimination, with the latter recognised as a particularly strong predictor.¹²⁶ At a regional level, machine learning predictive model analysis in Bangladesh, India, Nepal and Pakistan similarly identifies extreme rainfall and drought combined with low economic activity and limited

education as key predictors of child marriage prevalence.¹²⁷ In these simulations, drought conditions increased the likelihood of child marriage by up to 4.6 per cent while extreme rainfall increased rates by 2.9 per cent.

An analysis of rainfall data matched with nationally representative household surveys from 325 rural villages in Bangladesh demonstrates that rainfall shocks significantly increase underage girls' annual marriage hazards by approximately 5-10 per cent, and drought is linked to increases of up to 4-5 per cent.¹²⁸ The same study found no comparable effects for boys. The authors suggest that income loss from crop failures, housing damage, displacement, concerns about girls' safety, and pressures related to dowry or other marriage-payment dynamics are mechanisms that drive child marriage.

Qualitative studies provide context for how 'coping' is understood locally. For example, several sources identify the role of marriage-market institutions, particularly dowries or bride prices, in shaping crisis decision-making. Under climate stress, these practices become more salient. In northern Ghana, Asare and Forkuor (2024) found that marriage functions as a social protection mechanism, demonstrating that climate-related livelihood stress can make early marriage appear as a pragmatic strategy for reducing household expenditure or obtaining bridewealth resources, particularly when girls are perceived as economic liabilities and boys' education is prioritised.¹²⁹

The economic pressure on households also has a direct effect on girls' education. Climate events make schooling unaffordable, shift girls' time into household labour and survival chores (e.g. collecting water and fuel), and damage school infrastructure, each of which accelerates dropout and, with it, the conditions in which child marriage and unions become more likely. In Zimbabwe, recent analysis highlights how droughts and floods increase resource scarcity and household labour demands, contributing to school absenteeism and, in many cases, dropouts.¹³⁰

Pathway 3: Societal protection collapse – displacement, insecurity and 'protection' rationales

Protection collapse operates through two channels: institutional breakdown, principally the loss of school as a protective space; and community-level collapse, where displacement and insecurity erode the social safeguards that ordinarily protect girls. The most significant institutional loss is education, including comprehensive sexuality education (where included in curricula): when schools close, flood or are repurposed as emergency shelters, girls lose not only learning but a critical protective space whose removal directly accelerates transitions into marriage.¹³¹ Prolonged disruption reduces the perceived returns to staying in school. Education is not merely correlated with marriage timing; it operates as a protective factor, especially for adolescent girls, and its removal during crises accelerates transitions into child marriage.¹³²

Climate-related displacement exposes girls to insecure living conditions and weakens social safeguards. Evidence suggests that insecurity and displacement can trigger marriage as a perceived form of protection. Qualitative evidence from climate-affected settings suggests that families view marriage as a mechanism for safeguarding girls from harassment, assault or reputational harm in temporary shelters or unstable communities.¹³³ Girls living in displaced housing are significantly more likely to marry early than those who have not been displaced.¹³⁴

4.5 Unintended pregnancy

Unlike the other outcomes, unintended pregnancy is a compound result, driven not by any single disruption but by the collision of multiple failures at once. When a climate event such as a flood or drought simultaneously closes clinics, removes girls from school and pushes families into economic crisis, girls lose access to SRH information and contraception at exactly the moment their exposure to sexual violence or pressure to marry increases. It is this overlap between a health system that can no longer reach them and a protection environment that can no longer shield them that most acutely raises the risk of unintended pregnancy, compounded further by the loss of access to comprehensive sexuality education and SRH information.

When contraceptive services are interrupted and supplies run out (Outcome 1), girls and young women are denied the means to decide whether and when to become pregnant. Displacement increases exposure to coercion; when combined with limited access to emergency contraception and safe

abortion, alongside weak confidentiality and referral pathways, girls are left without recourse after assault and the risk of resulting pregnancy rises (Outcome 2). Economic hardship pushes some young women and girls into being sexually exploited in exchange for money, goods or benefits, with little power to negotiate safer sex, further raising the likelihood of unintended pregnancy (Outcomes 1 and 2). Child marriage and unions strip girls of control over their sexual activity and fertility, often resulting in unintended and unwanted pregnancies (Outcome 3). When these failures combine during a climate crisis, they can sharply reduce girls' ability to make informed decisions about their bodies and futures, with consequences that endure for life.

4.5.1 How direct harms converge to drive unintended pregnancy

Across hazard types, studies link the timing and intensity of disasters to a range of adverse reproductive health outcomes, including changes in pregnancy patterns, unmet need for contraception, and pregnancy-related complications, particularly where service disruptions and system failures intersect.¹³⁵ For example, a quasi-experimental analysis of the 2010 Haiti earthquake found that areas experiencing higher destruction saw increases in unintended pregnancies, driven by both disrupted access to contraception and reduced ability to negotiate condom use.¹³⁶

Pathways from climate shocks to unintended pregnancy

As with the other outcomes, climate shocks act on unintended pregnancy through three pathways: health system breakdown (Pathway 1), household economic pressure (Pathway 2) and societal protection collapse (Pathway 3). What distinguishes this outcome is convergence: unintended pregnancy is driven most sharply not by any single pathway but by how they intersect, as set out in our conceptual framework.

Pathway 1: Health system breakdown – contraception disruption

A shortage of contraceptives, clinic closures and the reassignment of health workers to other services make contraception initiation, resupply and method switching more difficult. Adolescents are especially affected by delays in accessing contraceptive services during displacement or evacuation due to disruptions to health systems, shortages of trained providers and the de-prioritisation of routine SRH care in emergencies. This is partly because adolescents are often overlooked in humanitarian programming: services are rarely designed for them, providers may be reluctant to offer contraception to unmarried adolescents, and age-of-consent and parental permission requirements add further barriers in crisis settings.¹³⁷

During climate shocks, emergency contraception is not always stocked or widely known about; when it is, the delays in reaching a functioning clinic often push girls and young women past the window in which it would remain effective. Additionally, rising costs, unsafe routes, and the need to rely on adults for permission or transport all make it even harder for adolescents to reach services when they need them most.¹³⁸

Pathway 2: Household economic pressure – sexual exploitation and child marriage

Economic stress may push girls and young women to be sexually exploited in exchange for money, goods or benefits, or they may be forced into child marriage and unions as a household coping strategy. Across multiple crisis settings, the United Nations Population Fund (UNFPA) has documented the emergence of widespread unmet reproductive health needs as livelihoods collapse and health facilities become inaccessible¹³⁹ – conditions under which sexual exploitation and unprotected intercourse become more likely for adolescent girls. Similar patterns have been documented in climate-related emergencies: in Kenya, flooding and livelihood loss drove sexual exploitation for money, goods or benefits.¹⁴⁰ Across low- and middle-income countries facing extreme drought, researchers note that economic distress creates conditions in which sexual exploitation and transactional relationships become more likely, resulting in unintended pregnancies.

Within this broader dynamic, disasters also directly accelerate marriage. After Cyclones Idai and Kenneth hit Mozambique in 2019, field reports and policy analyses flagged increases in child marriage and unions in the hardest-affected districts, linked to the loss of income and deepening food insecurity.¹⁴¹ Once in a union, girls typically face reduced decision-making power over contraceptive

use and may encounter expectations for rapid childbearing from partners, in-laws or prevailing norms and customs.¹⁴²

Pathway 3: Societal protection collapse –mutually reinforcing harms

Disasters can accelerate the timing of marriage, which in turn raises unintended pregnancy risk, but the relationship between child marriage and unions and unintended pregnancy requires careful framing as it is not a linear sequence. During climate crises, the risk of unintended pregnancy rises through several distinct mechanisms that may precede, follow or operate independently of marriage: adolescent girls face increased exposure to unprotected sex because they cannot negotiate condom use or access contraception; sexual violence intensifies and survivors are unlikely to have access to emergency contraception or comprehensive post-violence care; and the collapse of protection systems removes the limited safeguards girls ordinarily rely on. Pregnancy may also trigger a forced union (not only follow one), including cases where a girl is coerced into marriage with the same person who assaulted her. It is therefore important to understand child marriage and unions and unintended pregnancy as mutually reinforcing harms, each capable of driving the other, rather than as a cause-and-effect sequence.

The disruption of schooling, displacement from peer networks and breakdown of social protection systems create environments where adolescents are less likely to be connected to information and support that normally help to delay pregnancy. Displacement into overcrowded shelters, which lack privacy and have weakened safeguarding systems, exposes adolescents to coercion and sexual violence.¹⁴³

Taken together, these pathways converge: where safe abortion is legally restricted, the loss of every prevention option (from routine to emergency contraception) leaves unsafe abortion as the remaining recourse.

4.5.2 Health and life-course consequences

Crucially, climate crises tend to proliferate unintended pregnancies among much younger girls, through coerced unions or following episodes of violence. These pregnancies carry heightened risks:

Immediate health risks: Pregnancy and childbirth complications are the leading causes of death among 15- to 19-year-old girls.¹⁴⁴ These pregnancies are further compounded by poor birth spacing and elevated pregnancy-related morbidity.¹⁴⁵

Long-term socioeconomic consequences: Being forced to leave education, reduced livelihood opportunities, and the perpetuation of poverty cycles¹⁴⁶ are consequences that shape girls' life courses long after the climate shock has passed.

Beyond these risks, climate shocks also bear directly on maternal and newborn health. The primary research for this report documents a consistent erosion of maternal health during and after climate events, with girls and young women describing miscarriage, stillbirth, premature birth and low birth weight linked to climate-driven malnutrition, missed antenatal care, unsafe journeys to distant facilities, post-flood disease and acute stress. These harms fall on mothers and infants alike and extend the reproductive consequences of climate shocks well beyond the question of whether a pregnancy was intended.

In this sense, unintended pregnancy is both a health outcome and a mechanism of extended vulnerability. It captures the cumulative consequence of climate-driven disruptions to protection, autonomy and access, but to frame it in reproductive terms alone would be misleading. When an adolescent girl cannot choose her sexual partner, decide whether to have sex or access the means to protect herself, the harm extends beyond reproductive rights into the full spectrum of her sexual rights: her right to bodily autonomy, to sexual self-determination, and to a life free from coercion and exploitation. Climate crises not only constrain girls' reproductive choices but also strip away the conditions under which meaningful sexual agency is possible at all.

4.6 Evidence gaps for all four outcomes

Despite a growing body of research linking climate shocks to adverse SRHR outcomes, significant evidence gaps remain across all four outcomes examined in this review. Across the literature, gaps cluster around four key areas: (1) measurement and causal inference, (2) population coverage and intersectionality, (3) geographic representation, and (4) implementation and longitudinal evidence.

Measurement, causal pathways and data limitations

Much of the literature treats contraception as one of many SRHR outcomes of climate shocks, rather than examining it in-depth.¹⁴⁷ Few studies track how long post-disaster shortage of supplies last or disaggregate unmet needs by age or contraceptive method. This gap is particularly acute for girls under 15, who face the highest risk of pregnancy-related mortality and morbidity of any age group, yet are the least likely to be captured in age-disaggregated data or analysed as a distinct category, leaving their heightened vulnerability largely invisible in the evidence base.

Many studies also have limited or no geospatial-level environmental data, which is precise geocoded information on local temperature, rainfall, drought severity or other environmental conditions.¹⁴⁸ Without this information, it is difficult to accurately link climate stressors with GBV trends. This is compounded by a lack of systematic monitoring of gender-based violence linked to environmental stressors,¹⁴⁹ with many studies focusing primarily on drought.¹⁵⁰

Further limitations include inconsistent definitions of extreme weather exposure and heavy reliance on cross-sectional datasets. Many studies apply variable drought or flood indices or focus on prediction rather than causation, limiting comparability and weakening causal inference.^{151,152}

Current research provides key insights into the pathways linking climate shocks to SRHR outcomes,¹⁵³ yet causal attribution remains limited, particularly for adolescent unintended pregnancy, while there is stronger evidence linking extreme rainfall to increases in child marriage and unions.¹⁵⁴ The pathway from child marriage and unions to early pregnancy is itself well documented independent of climate, where girls in unions are frequently unable to decide on contraceptive use and the majority are pregnant before or shortly after a marriage or union.¹⁵⁵ What remains scarce are quasi-experimental or longitudinal studies that estimate the impact of specific climate hazards on adolescent and unintended pregnancy. The gap is therefore one of direct attribution rather than of the underlying causal chain.

Together, these limitations constrain the development of robust indicators and weaken the evidence base needed for policy and programme design.

Limited attention to adolescents and intersectional vulnerabilities

Significant gaps persist in understanding how climate shocks affect the SRHR and protection outcomes of adolescent girls. Many studies lack adolescent-specific data or analysis, particularly for younger adolescents (those aged 10-14),^{156,157,158} with minimal attention to youth experiences and almost no longitudinal research.¹⁵⁹

Across the literature, the intersectional groups identified in our conceptual framework (adolescents with disabilities, LGBTIQ+ youth, Indigenous communities and displaced girls) remain largely absent from empirical analyses and disaggregated datasets. This partly reflects how data is collected: these groups are small within general population samples; standard survey instruments often do not capture the relevant identifiers (disability, sexual orientation, gender identity and Indigenous status); and stigma, criminalisation or exclusion from national sampling frames leaves those classified as 'other' undercounted by design. As a result, the differentiated pathways through which climate shocks shape their SRHR risks are poorly understood.¹⁶⁰ Intersectional analysis within the child marriage and unions evidence base remains limited: most studies focus on rural girls, leaving the experiences of those facing compounding inequalities such as disability, ethnicity, caste and conflict-affected status largely unmapped.¹⁶¹

Geographic imbalances in the evidence base

Geographic representation is heavily skewed, with most evidence concentrated in South Asia (especially Bangladesh) and select countries in sub-Saharan Africa.¹⁶² This limits representativeness and risks over-reliance on a narrow set of contexts. The geographic concentration of the evidence reflects data availability as much as underlying prevalence: Bangladesh combines very high baseline

rates of child marriage and unions with frequent, well-delineated climate hazards and long-running nationally representative survey data that can be linked to georeferenced climate records, which are the conditions quantitative studies require. The skew therefore reflects where the evidence can most easily be produced, not necessarily where the effect is greatest.

There is very little evidence from Latin America, the Middle East and the Pacific Islands.¹⁶³ In Latin America and the Caribbean, where legal frameworks may suggest child marriage is no longer prevalent, research often fails to capture informal or early unions.¹⁶⁴ Evidence from this region is especially sparse even though it has one of the highest proportions of girls in informal or early unions globally. One in four girls enters a union before age 18 in Latin America and the Caribbean, which is the only region where such unions have not declined in 25 years. Studies consistently stress that informal unions far outnumber formal marriages, making them particularly vulnerable to invisibility in research and policy.¹⁶⁵

The sparseness of evidence from Latin America and the Caribbean is not for want of climate exposure. The region experiences frequent droughts and flooding, from Andean drought to recurrent El Niño flooding in Peru. Rather, the predominance of informal and early unions (as opposed to registered marriages) evades the administrative records and survey instruments on which most climate-child marriage and unions studies rely, and legal minimum-age frameworks foster an assumption that the problem is resolved. The phenomenon is present and the hazards are frequent; what is missing is the measurement that would link them.

These geographic gaps obscure region-specific dynamics and limit the global applicability of current evidence.

Lack of longitudinal and implementation research

There is a clear lack of longitudinal data tracking how SRHR outcomes evolve before, during and after climate shocks. This limits understanding of duration, recovery and long-term impacts.

There is also a critical gap in implementation research evaluating what works to sustain sexual and reproductive health and rights during shocks. Few studies test climate-resilient SRHR delivery models – such as self-care approaches, women-friendly shelters with onsite SRH services, mobile SRH services or cash-plus programming – against outcomes like contraceptive continuation, emergency contraception uptake, safe abortion, post-abortion care or unintended pregnancy.¹⁶⁶

Without rigorously tested and scalable models, governments and humanitarian actors lack actionable evidence to design effective, climate-resilient SRHR interventions.

4.7 The policy gap: where's SRHR in climate plans?

Sexual and reproductive health and rights remain largely absent from climate policy, even as the disproportionate impact of the climate crisis on women and girls is increasingly acknowledged. The gap is visible even at the broader level of gender. For example, as of 2024, 85 per cent of parties referenced gender in reports and frameworks submitted to the United Nations Framework Convention on Climate Change (UNFCCC), including in their Nationally Determined Contributions, National Adaptation Plansⁱⁱⁱ and Long-Term Low Emission Strategies.¹⁶⁷

Yet these references routinely overlook intersectional characteristics such as age, disability and socioeconomic status that, when intersected with gender, exacerbate vulnerability to climate change. Gender integration rarely extends to SRHR or health more broadly. This is a critical gap given the established pathways through which climate events disrupt contraceptive access, increase gender-based violence and trigger negative coping mechanisms like child marriage and unions.

ⁱⁱⁱ National Adaptation Plans were introduced in 2010 under the UNFCCC to help states reduce vulnerability to the impacts of climate change through adaptive capacity and resilience, and to identify medium- and long-term adaptation needs.

4.7.1 The invisibility of sexual and reproductive health in National Adaptation Plans

Within adaptation planning specifically, this absence is starker still: sexual and reproductive health and rights are almost entirely overlooked in National Adaptation Plans. This gap represents a failure to address the differentiated vulnerabilities that climate change creates for girls and young women in all their diversity, particularly in low- and middle-income countries.

When health is mentioned in National Adaptation Plans, the focus is generally on communicable diseases or health system strengthening, without specific considerations of how climate impacts affect pregnancy outcomes, contraceptive outcomes or sexual violence risks, and without including a gender or intersectional lens. A 2021 analysis of 19 National Adaptation Plans submitted to the UNFCCC by low- and middle-income countries examined how well these plans recognised links between climate adaptation and SRHR.¹⁶⁸ The review found only limited attention to SRHR overall: just 10 of the 19 documents mentioned any of the areas assessed, such as maternal and newborn health, voluntary modern contraception or gender-based violence. Assessment reports by the Intergovernmental Panel on Climate Change acknowledge health as a climate-sensitive indicator,¹⁶⁹ but SRHR-specific risks remain underemphasised in policy translation.

Van Daalen et al. (2024) argue that gender mainstreaming efforts in climate policy, while improving, often treat women primarily as productive economic agents rather than individuals with specific health needs that climate change exacerbates.¹⁷⁰ This results in adaptation frameworks that fail to strengthen the SRH infrastructure that climate impacts threaten most directly.

This disconnect is particularly stark given the evidence base established in this review. Climate change has been consistently linked to rising rates of adolescent pregnancies that are unintended, unwanted or forced, driven by disrupted access to contraception, heightened gender-based violence and increased child marriage and unions. Yet these outcomes remain largely absent from climate adaptation frameworks. The siloed treatment of sexual and reproductive health and rights and climate policy perpetuates a double invisibility that leaves adolescent girls and young women without protection at precisely the moments they are most vulnerable. Research on how climate change affects child marriage is growing but mostly shows links rather than clear cause and effect, and it is uneven across regions, covers only short time horizons, and still needs stronger policy analysis and integration.

4.7.2 Climate finance: Infrastructure over health

The allocation of climate finance reinforces this policy gap. An analysis of funding flows from major climate funds^{iv} shows that health receives a tiny fraction of adaptation financing, and SRHR receives even less. Currently, just 6 per cent of adaptation funding and 0.5 per cent of multilateral climate funding supports health-related initiatives.^{171,172} However, even within this limited envelope, funded 'health-related initiatives' predominantly focus on vector- and water-borne diseases, health impacts from extreme weather events and strengthening the climate resilience of healthcare facilities. By contrast, several priority areas, including zoonoses, mental health, and sexual and reproductive health and rights, are mentioned far less frequently in national planning processes and receive little to no direct climate finance, leaving SRHR virtually absent both as a specific funding category and as a supported health issue within broader climate-health spending.

Climate adaptation finance prioritises certain sectors over others. Energy receives 44 per cent of total mitigation finance and transport receives 29 per cent, while sectors crucial to human wellbeing such as water, food systems and health services receive comparatively little financial attention.¹⁷³ While these investments are undoubtedly important, the funding imbalances ignore that health systems (particularly SRHR services) constitute critical infrastructure for climate resilience. The economic case for SRHR investment rarely penetrates climate finance decision-making despite being well established: every additional dollar spent on contraceptive services for adolescents in low- and middle-income countries saves an estimated US \$3.70 in maternal, newborn and abortion care.¹⁷⁴

^{iv} The analysis included the Green Climate Fund, Adaptation Fund and bilateral climate finance mechanisms.

Beyond these direct savings, contraceptive access enables the education and economic participation that underpin adaptive capacity. Evidence suggests every US \$1 invested in girls' rights and education generates a US \$2.80 return, and that closing girls' education and employment gaps could add billions to the gross domestic product of developing economies.¹⁷⁵ Women's education is linked to lower fertility rates, greater health literacy and enhanced leadership in disaster response, all of which reduce resource demands and strengthen adaptive capacity.¹⁷⁶ Yet these connections remain underexplored in climate finance mechanisms.

Infrastructure is visible, quantifiable and fits within traditional development frameworks. In contrast, sexual and reproductive health operates through complex delivery systems and is grounded in social norms and unequal power relations that derive from gender inequality¹⁷⁷ – dimensions that climate policy discussions often leave unexamined.

4.8 Concluding insights of the literature review

The evidence reviewed here is unambiguous: climate shocks systematically disrupt the conditions under which adolescent girls and young women can exercise sexual and reproductive autonomy. Across contraceptive access, gender-based violence, child marriage and unintended pregnancy, the same underlying issues recur: health infrastructure fails, household economies collapse, and the social and institutional protections that girls and young women depend on fracture simultaneously. These are not separate harms but interlocking ones, each amplifying the others. The risk of unintended pregnancy is perhaps the clearest expression of this convergence, crystallising how climate crises remove both the means of prevention and the conditions of safety at once. Critically, climate change does not introduce these harms into communities where they were absent, but it intensifies and extends the SRHR inequalities that girls and young women, in all their diversity, already experience day to day, falling hardest on those whose access to services, protection and rights was already the most precarious.

Yet research has not kept pace with the scale of the problem. Three critical gaps stand out:

- **Geographic skew:** Evidence concentrates in South Asia and parts of sub-Saharan Africa, with Latin America and the Caribbean, the Middle East and the Pacific largely absent.
- **Invisible groups:** Girls aged 10 to 14, girls with disabilities, Indigenous girls, LGBTIQ+ youth and girls in informal unions remain largely absent from disaggregated data.
- **Weak causal inference:** The near absence of longitudinal and quasi-experimental designs limits attribution, particularly for adolescent pregnancy.

Nor has research translated into concrete policy or action: SRHR remains marginalised in National Adaptation Plans and receives negligible climate finance. The gap between what the evidence shows and what adaptation frameworks address is not a technical oversight but a failure of political priority, and it is girls and young women who absorb the cost.

5. Methodology

This report draws on three methods, each chosen to answer a different kind of question and to offset the limits of the others. The literature review establishes what existing research already shows about the links between climate shocks and the four focal SRHR outcomes. The secondary statistical analysis tests whether those links are detectable at scale, analysing Demographic and Health Survey (DHS) data across 52 countries spanning 1990 to 2019;^v this offers breadth and population-level associations, but only at the level of subnational regions rather than individuals or households, and within the bounds of the available data. The primary research – a survey of 5,000 girls and young women, along with qualitative interviews and focus groups across five countries (Bangladesh, Kenya, Peru, Senegal and Zimbabwe) – narrows the focus to capture lived experience and the reasoning behind the patterns. Read together, the breadth of the statistical analysis, the structured reach of the survey and the depth of the qualitative work are intended to complement and cross-check one another: where they converge, they reinforce a finding, and where they diverge, that difference is itself informative, as set out in [Section 8](#).

5.1 Secondary data analysis

To explore the relationship between climate events and SRHR outcomes at scale, we commissioned a targeted secondary analysis of existing survey and climate datasets. The analysis draws on DHS data – a long-running international survey programme that has collected nationally representative household data across low- and middle-income countries since the 1980s. The SRHR outcomes are constructed directly from the raw DHS women's files. LivWell provided the subnational harmonisation, mapping DHS survey rounds and boundaries into a consistent panel across 52 countries.¹⁷⁸ This existing harmonisation is what defines the sample: the analysis spans the 52 countries and over 460 subnational regions (such as provinces and states) for which harmonised DHS and climate data could be aligned across decades (1990-2019), drawing on records from almost 2.9 million women. The country set is therefore data-driven, reflecting every context in which the underlying data allow a like-for-like comparison, which is precisely what gives this analysis its breadth. These records were combined with established climate datasets to test whether climate shocks are associated with key SRHR issues, particularly child marriage and unions alongside intimate partner violence and contraceptive use.

Data sources: The analysis brings together two kinds of existing data – survey measures of SRHR outcomes and independently produced records of climate hazards, matched to the same subnational regions and time periods. SRHR outcomes are drawn from the relevant DHS modules and, through the LivWell harmonisation, assembled into a consistent region-by-survey-year panel spanning 1990 to 2019.¹⁷⁹

Climate hazard exposure is taken from established, publicly available datasets rather than constructed for this study. Drought is measured using the Standardised Precipitation-Evapotranspiration Index (SPEI) from the Global SPEI database,¹⁸⁰ a gridded monthly record of how wet or dry an area is relative to its own long-run norm. Floods and storms are identified from the Emergency Events Database (EM-DAT), maintained by the Centre for Research on the Epidemiology of Disasters (CRED) at UCLouvain, with each event located to the relevant region using the Geocoded Disasters (GDIS) dataset.¹⁸¹ Both the SPEI rasters and the EM-DAT/GDIS events are mapped to LivWell-harmonised regions, allowing climate exposure to be aggregated to the same spatial units used elsewhere in the analysis; the underlying climate variables themselves are constructed by the research team. Each region's climate exposure is then aligned to the same survey years and reference periods as its SRHR outcomes, so the two can be compared on a like-for-like basis.

SRHR variable construction: SRHR outcomes cover child marriage and unions, intimate partner violence and contraception, computed directly from the raw DHS Individual Recode (IR) files rather than

^v The 52 countries included: Armenia, Bangladesh, Benin, Bolivia, Burkina Faso, Burundi, Cambodia, Cameroon, Colombia, Côte d'Ivoire, Democratic Republic of the Congo, Egypt, Ethiopia, Gabon, Ghana, Guatemala, Guinea, Haiti, Honduras, India, Indonesia, Jordan, Kenya, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Morocco, Mozambique, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tajikistan, Tanzania, Timor-Leste, Togo, Turkey, Uganda, Vietnam, Zambia and Zimbabwe.

drawn from LivWell. We use different age thresholds and reference windows for each, as detailed in Table 1.

Table 1: SRHR variable construction

Outcome measure	Outcome family	Population	Reference window	Definition
Child marriage and unions	First-union below age 18	Women aged 15-22; cohort age range adjusts to the exposure window (15-18 at 12 months, up to 15-22 at 60 months)	12/24/36/60 months	Share entering first union within the relevant recent window and below age 18.
Intimate partner violence	Physical partner violence	Adolescent girls and young women aged 15-24	Past 12 months	Share of ever-partnered women aged 15-24 who experienced physical violence from a current or most recent partner in the 12 months preceding the interview.
Intimate partner violence	Sexual partner violence	Adolescent girls and young women aged 15-24	Past 12 months	Share of ever-partnered women aged 15-24 who experienced sexual violence from a current or most recent partner in the 12 months preceding the interview.
Intimate partner violence	Physical and/or sexual partner violence	Adolescent girls and young women aged 15-24	Past 12 months	Share of ever-partnered women aged 15-24 who experienced physical and/or sexual violence from a current or most recent partner in the 12 months preceding the interview.
Contraception	Current use of any method	Adolescent girls and young women aged 15-24	Current use	Share of women aged 15-24 currently using any method. Current use is a point-in-time measure with no recall period; the 12-month window refers to the climate hazard exposure period used when testing this outcome against drought, flood and storm exposure, not to the contraception measure itself.
Contraception	Current use of a modern method	Adolescent girls and young women aged 15-24	Current use	Share of women aged 15-24 currently using a modern method. Current use is a point-in-time measure with no recall period; the 12-month window refers to the climate hazard exposure period used when testing this outcome against drought, flood and storm exposure, not to the contraception measure itself.

Data source for all variables: Demographic and Health Surveys (DHS)

Climate variable construction: Climate hazard exposure is derived from gridded climate and event datasets and processed into subnational measures matched to each survey wave and the relevant exposure period. Drought is measured using the Standardised Precipitation-Evapotranspiration Index (SPEI-3) from the Global SPEI database, a monthly gridded index at 0.5° resolution. Global rasters are

clipped to each country, mapped onto the outcome's reference period, and spatially averaged within each DHS subnational region. Drought exposure is then expressed as the share of months in the exposure window in which SPEI-3 falls below a drought threshold, with -1 as the main threshold and -1.5 and -2 used as stricter sensitivity checks. Exposure is constructed consistently over 12-, 24-, 36- and 60-month windows so that the hazard window can be matched to the outcome's reference window.

Flood and storm exposure are built from event records in EM-DAT, spatially anchored to subnational regions using the GDIS polygons. Each event is assigned a year and month from its EM-DAT start date and aggregated into a region-by-month panel. From this, we construct rolling exposure measures over 12, 24, 36 and 60 months, as both binary indicators (whether any event occurred) and event counts. Because GDIS coverage ends in 2018, the flood and storm panels run to 2018, while the drought measures extend across the full period.

Control variable construction: To adjust for socioeconomic differences that may correlate with both climate exposure and SRHR outcomes, we include a compact set of time-varying subnational controls: women's mean years of schooling, household wealth and the regional age structure (women's average age). Each model also distinguishes urban and rural strata. This set is deliberately kept small and harmonised across countries and survey waves. Women's schooling in particular recurs as the most stable protective factor across outcomes.

Empirical strategy: Our main analysis compares changes over time within the same subnational regions, using DHS data. The SRHR outcome variables are aggregated to the region-by-survey-year level. The model controls for permanent regional characteristics and for year-specific shocks that affect all regions. All specifications include subnational and year fixed effects. When an SRHR outcome is defined over a short-recall period (e.g. the past 12 months), we construct hazard exposure over the same period. When outcomes are available only as long-recall measures, we treat estimates primarily as descriptive associations and, where feasible, complement them using DHS timing information. The analysis introduces controls for changes in socioeconomic conditions that may be linked with both climate exposure and SRHR outcomes (see Table 1, "SRHR variable construction" for more details).

Robustness and sensitivity: We assess robustness in several ways. Drought results are re-estimated across three SPEI-3 severity thresholds (-1, -1.5 and -2) and across the four exposure windows, matching the hazard window to each outcome's reference period. For the event-based hazards, we report both a binary 'any event' indicator and an event-count specification. Every outcome is estimated in a baseline form and with the full set of socioeconomic controls, and we examine heterogeneity by splitting regions into low, middle and high groups on household wealth, women's agricultural employment and the prevailing early-marriage norm. Standard errors are clustered at the subnational region level throughout.

Limitations: Several limitations should be borne in mind. The estimates are associations from a region-level fixed-effects panel rather than causal effects, and they describe average responses across regions. They do not rule out more localised effects that a finer, place-specific design might detect – a particular caveat for the flood and storm nulls, where event data are coarse and may understate smaller events. The exposure windows also differ across outcomes: the significant drought-early union result is identified over a five-year window, whereas the partner violence and contraception models use a one-year window, so the outcomes are not directly comparable on exposure length. Partner violence outcomes additionally rest on fewer countries and regions and a short 12-month recall, which limits statistical power. Finally, the panel is unbalanced, with countries contributing different numbers of survey waves at different times.

5.2 Quantitative survey

Questionnaire: The questionnaire had 21 closed questions, most of which allowed respondents to select multiple answer codes. Questions were structured around five areas: (1) filter questions to determine eligibility (location, experience of climate event); (2) demographic characteristics (age, minority group, income, etc); (3) general climate impacts; (4) climate impacts on sexual and reproductive health and rights; (5) solutions and youth voices. The survey questionnaire was translated into multiple languages, as shown in Table 2.

Timeframe: Data collection ran from 20 March to 29 April 2026.

Data collection: Data was collected by GeoPoll using computer-assisted telephone interviewing (CATI), i.e. telephone calls. Interviewers conducted telephone interviews in the five survey countries and used GeoPoll's proprietary CATI Mobile Application to record responses. Respondents could opt out of the call or request a call-back at another time.

Training and testing: All data collectors participated in training on data collection and all tools were pre-tested by staff.

Quality assurance and data monitoring: Across all five countries, a total of 265,133 call attempts were made to achieve 5,000 completed interviews. Interim data updates were provided to Plan International at agreed intervals throughout the fieldwork, in Excel and Statistical Package for the Social Sciences (SPSS) formats. Key quality control measures applied throughout data collection included:

- Real-time monitoring of completions, refusal rates, call dispositions and demographic distribution through the GeoPoll CATI platform.
- Automated logic checks within the survey script to flag inconsistent or incomplete responses.
- Monitoring of key quality indicators, including rapid completes, seconds per question and unusual response patterns.
- In-person supervisor oversight of interviewers in each country call centre.
- Audio monitoring: A random sample of recorded interviews was reviewed by supervisors in each country to assess interviewer conduct, question delivery and response recording accuracy. Interviewers identified as requiring remediation received targeted feedback or retraining before continuing fieldwork. Any interviews where audio review indicated compromised quality were removed from the dataset.
- Back-checking: A proportion of completed interviews were subject to back-check calls to verify that interviews were conducted with genuine, eligible respondents and that survey introductions were read in full. Back-check findings were reviewed by the GeoPoll project team and any interviews that did not meet quality thresholds were removed from the final dataset.

Sampling: A target of 1,000 completed interviews was set for each country, all with adolescent girls and young women aged 15-24. Sampling drew on GeoPoll's database of mobile respondents, initially acquired via in-country mobile network operator partnerships, face-to-face recruitment and random digit dialling. Locations within each country were specifically selected based on areas that have experienced climate shocks in the past five years, as identified through EM-DAT. Sampling allowed age and geographic distribution to emerge naturally within eligible areas, with quotas monitored by age group (15-19 and 20-24) and subnational administrative unit throughout fieldwork. Table 2 summarises the data collection mode, language and sample size for each country.

Table 2: Mode, language and sample size by country

Country	Mode	Language	Sample size
Bangladesh	CATI	Bengali	1,000
Kenya	CATI	English and Kiswahili	1,000
Peru	CATI	Spanish	1,000
Senegal	CATI	French, Wolof and Pulaar	1,000
Zimbabwe	CATI	Shona and Ndebele	1,000

Communication costs: CATI participants were compensated with US \$0.50 airtime credit upon successful completion of the questionnaire.

Data analysis: Data cleaning, merging and analysis were conducted using SPSS. Data analysis included the creation of basic summary statistics – often disaggregated by demographic variables – and bivariate statistics such as correlations and group comparisons. We also carried out proportion tests to identify statistically significant differences between groups, such as by age, location, minority-group status, livelihood source, country and type of climate-related event. When we report differences, we refer to statistically significant differences at the 5 per cent level or less. All percentages are rounded up when the decimals are 0.50 or higher and rounded down when the decimals are smaller than 0.50.

Considerations: The achieved sample is not nationally representative of all adolescent girls and young women aged 15-24 in the five survey countries. Several factors shape the scope and generalisability of findings and should be considered when interpreting results:

- **Phone access:** The CATI methodology requires respondents to be reachable by phone. The sample is therefore limited to girls and young women who owned a mobile phone, had regular access to one or could be reached through a household or parent's device. Those without any phone access are excluded from the sampling frame, which may underrepresent the most economically marginalised or geographically remote populations.
- **Climate-affected areas only:** Sampling was purposively limited to locations with documented exposure to climate shocks. Findings reflect the experiences of girls and young women in climate-affected contexts and are not intended to describe conditions across each country as a whole.
- **Self-reported climate exposure:** Eligibility was based on respondents self-reporting a climate event in their community over the past two years. This relies on individual recall and perception, which may vary across respondents and communities.
- **Sensitive topics:** The survey covered sensitive subject matter, including gender-based violence and sexual and reproductive health. Social desirability bias and under-reporting on sensitive items cannot be ruled out, particularly where norms around disclosure vary.
- **Age ranges:** While early adolescence (age 10 to 14) is a critical period in a girl's life, research was conducted with girls and young women between the ages of 15 and 24 due to ethical and practical considerations.
- **Temporal considerations:** Since eligibility was based on climate events reported in the previous two years, the findings capture respondents' perceptions and experiences within a specific recall period, rather than longer-term or cumulative impacts of repeated climate shocks over time. Some impacts may also change over time. For example, barriers to services may be immediate, while effects on livelihoods, education, marriage, pregnancy or mental health may emerge later.
- **Diversity:** The sample did not include boys or gender non-conforming youth.

5.3 Qualitative interviews and focus groups

Qualitative interviews and focus group discussions were conducted in the same five countries as the survey (see Table 3). This allowed researchers to move beyond the statistical patterns identified in the survey data, exploring the lived experiences and perspectives of girls and young women in their own words. This approach provided critical insight into the reasoning and motivations behind survey findings, capturing the nuanced social, cultural and economic factors shaping girls' experiences of climate-related stressors.

Semi-structured interviews were conducted with 54 girls and young women aged 15 to 24, and 10 focus groups (8-10 participants each) were completed with girls and young women in the same age category, divided into groups of 15-19 and 20-24 year-olds.

Table 3: Qualitative overview of respondents

Country	Location(s)	Number of interviews	Number of girls and young women in focus groups
Bangladesh	Sunamganj (northeast): a climate-vulnerable district in the wetlands, prone to long-lasting floods.	10	16
Peru	Piura (northwest): a climate 'hotspot' experiencing intensified El Niño events, long periods of drought and dwindling water resources, as well as extreme switches to intensified rainfalls causing mudslides.	10	17
Kenya	Dukana (northwest, along the Kenya-Ethiopia border): an area with a harsh desert climate characterised by recurrent droughts, erratic rainfall, extreme heat and occasional flash floods. Climate variability has intensified in recent years.	15	16

Senegal	Saint Louis (northwest coast): a UNESCO World Heritage city in the Senegal River Delta, among the country's most climate-exposed cities. Highly vulnerable to coastal erosion and flooding from both rising seas and the Senegal River, with rising tides already displacing residents.	10	15
Zimbabwe	Mutare (Eastern Highlands), Chiredzi (Lowveld, southeast) and Mutoko (Mashonaland East, northeast): rural, climate-vulnerable districts experiencing recurrent droughts and heatwaves, with some areas exposed to storms and flooding.	9	21
Total		54	85

The questionnaire for the interviews and focus groups was structured into thematic sections ([See Annex 3](#) for details).

Data collection: Interviews and focus groups were conducted in person and lasted 45 minutes to two hours. They were conducted in Spanish (Peru), Bengali (Bangladesh), Wolof, Pulaar and French (Senegal), Kiswahili and Borana (Kenya), and Shona (Zimbabwe), with a mix of English and Shona sometimes used in Zimbabwe.^{vi}

Fieldwork was carried out on the following dates:

Bangladesh: 31 March to 2 April 2026

Peru: 17 to 18 March 2026

Senegal: 17 to 19 June 2026

Kenya: 7 to 10 May 2026

Zimbabwe: 21 to 22 April 2026

Sampling: In each country, data was collected in a single location selected by Plan International's country office based on its exposure to climate change, with priority given to areas experiencing frequent droughts or flooding. Within each location, the sample comprised 10 individual interviews and two focus group discussions with adolescent girls and young women. The 10 interviews were distributed evenly across five age bands (15-16, 17-18, 19-20, 21-22 and 23-24), with two participants drawn from each. The two focus group discussions were organised by age: one with participants aged 15-19 and one with those aged 20-24. To capture a range of lived experiences, interview participants were purposively selected from diverse backgrounds. To ensure the inclusion of diverse perspectives, where possible, each location sought to include a girl who had dropped out of school, a young mother, a person displaced as a result of climate change and a person with a disability.

Data analysis: Following the interviews, the recordings were transcribed and translated by each country office. The initial interview template was reviewed to develop a qualitative codebook using a hierarchical coding frame to help organise and structure the data and enable key findings, themes and arguments to be identified within and across the pathways and outcomes defined in our conceptual framework. This codebook remained flexible and was adapted if new themes emerged. Codes were added or deleted and categories were re-organised based on what emerged from the data.

The transcripts were initially read to gain key understandings from the interviews and focus groups and to remove any personally identifiable information. Once the transcripts were fully anonymised, batches of anonymised transcripts and the qualitative codebook were uploaded to the Claude application programming interface (API), a large language model (LLM), where the AI tool coded each transcript against our codebook. All coding conducted by the LLM was then checked by the research team, and any errors or disagreements were rectified. The researchers also removed cases of 'over-coding' conducted by the LLM (where too many codes were applied to the same narrative text) and identified the most suitable code(s). A master coding template was then created for each country, and notes were made on each code and organised into a narrative structure.

^{vi} CATI survey languages reflect the broader set of climate-affected areas sampled by phone within each country. Qualitative interview and focus group languages reflect the language(s) spoken in the specific district(s) selected for fieldwork (Table 3), which is why language lists do not fully overlap for Kenya and Zimbabwe.

Limitations: The small sample size limits generalisability. Translation and transcription processes may have affected the accuracy of some responses, and the sensitive nature of topics raises the possibility of social desirability bias, particularly in group settings. In Kenya and for some interviews in Zimbabwe specifically, researchers frequently summarised participants' responses rather than recording them verbatim, limiting the authenticity and depth of the data from those countries. Ethical approval delays also meant data collection was not simultaneous across all countries.

5.4 Ethics and safeguarding

Research ethics approval was granted by the Research Ethics Committee at the UK-based global affairs think tank ODI Global. A full safeguarding risk assessment was conducted in collaboration with country office staff to identify potential risks and mitigation measures for all data collection methods. In-country ethics approvals were also obtained in Senegal and Kenya, through *Le Comité National d'Ethique pour la Recherche en Santé* (CNERES) in Senegal and through an Institutional Scientific and Ethics Review Committee via the National Commission for Science, Technology & Innovation (NACOSTI) in Kenya.

Quantitative Survey

GeoPoll signed a code of conduct confirming their adherence to Plan International's global safeguarding policy. Consent was obtained from all participants and from parents/guardians of 15- to 17-year-old participants. The survey interview scripts emphasised that participation was voluntary and that consent could be withdrawn. Robust privacy protection and data security were assured.

Qualitative Data Collection

Informed consent and assent were obtained from all participants, including parental or guardian consent for those under 18. Participants, and parents/guardians where relevant, were informed about what participation would involve. They were told that participation was voluntary, that consent could be withdrawn and how the research would be used. Verbal consent was also obtained to record the interviews.

Recognising that participants may feel a level of power imbalance with the data collector, participants were often reminded that they were able to opt out of the research if they experienced discomfort, with no negative consequences. Anonymity, confidentiality and data security were ensured throughout the data collection, analysis and write-up process. All data collectors signed Plan International's global safeguarding policy..

Participating office staff conducted the interviews and focus group discussions in line with Plan International's ethics and safeguarding procedures. All staff conducting interviews completed safeguarding courses and were briefed on safeguarding and referral processes. Country staff involved in data collection also received training on the research tools, ethics and safeguarding, enabling them to train data collectors effectively.

6. Secondary data analysis of climate events and SRHR outcomes

6.1 Introduction

Using a harmonised dataset of DHS records from 52 countries across three decades (1990-2019), we tested whether climate hazards are associated with key SRHR outcomes. We examined three hazards – slow-onset drought, sudden-onset floods, and storms – against three outcomes: child marriage and unions, intimate partner violence, and contraceptive use. Each model compares change over time within the same region, matches the climate-exposure window to the outcome’s reference period, and adjusts for women’s schooling, household wealth, age structure, and rural or urban location.

In summary, of the nine hazard-outcome combinations tested, there is clear evidence of one hazard – drought – acting on two outcomes: child marriage and unions and contraceptive use. Floods leave almost no trace, storms matter only at the margins, and no hazard shows a robust association with intimate partner violence (see [Section 8](#) for further explanation). Across the analysis, women’s education is the single most consistent protective factor.

6.2 Where the hazards left no measurable signal

It is important to note that a null result is not the same as proof of no effect. A finding of “no association” means no measurable signal at the regional scale given the available data. For floods and storms, data is more limited in coverage and uneven in detail (event records understate smaller events, and geocoded coverage ends in 2018).

Sudden-onset floods and storms show no consistent link to early marriage.

Across all four exposure windows, neither floods nor storms are associated with under-18 unions, in either the baseline or controlled models, and whether exposure is measured as any event or an event count (see [Annex 1](#): Tables 22 and 23, effects of flood and storm exposure on early unions). The contrast with drought is itself informative: cumulative, slow-onset economic erosion appears to drive household marriage decisions, whereas discrete shocks tend to trigger immediate humanitarian and logistical responses that do not translate into sustained shifts in early-union prevalence.

No climate hazard shows a robust association with intimate partner violence.

Across drought, floods and storms, and across physical, sexual and combined violence, there is no consistent, meaningful relationship with recent partner violence among girls and women aged 15-24, before or after controls (see [Annex 1](#): Tables 24, 25 and 26, effects of drought, flood and storm exposure on intimate partner violence). This applies across every severity threshold and both exposure measures. However, the null result should be read cautiously rather than conclusively: the partner violence measure is narrow (only violence by a current or recent partner in the past 12 months), the sample is smaller (38 countries), and the recall window is short, all of which limit the power to detect a regional signal. The one consistent pattern across these models is protective and non-climatic: regions where girls have more schooling report less intimate partner violence. The honest reading is that climate leaves no measurable imprint on this narrow slice of violence at the regional scale, not that girls’ safety is untouched. The survey and interviews, and the child marriage findings below, tell a different part of the story.

6.3 Where the evidence is clear: drought

Drought leaves a clear and consistent mark on two outcomes: child marriage and unions and contraceptive use.

Drought and child marriage and unions

Analysis across 52 countries shows a strong, consistent association between prolonged drought and higher rates of child marriage and unions (see Table 4).

Table 4: Effect of drought exposure on first union before 18, with demographic and socioeconomic controls

	Under-18 union, last 1 year	Under-18 union, last 2 years	Under-18 union, last 3 years	Under-18 union, last 5 years
Drought exposure, 1 year	-0.007 (0.005)			
Drought exposure, 2 years		-0.002 (0.008)		
Drought exposure, 3 years			0.007 (0.009)	
Drought exposure, 5 years				0.031** (0.014)
Rural (versus urban)	0.021*** (0.002)	0.038*** (0.002)	0.048*** (0.002)	0.065*** (0.003)
Women's average years of education	-0.000 (0.001)	-0.001 (0.002)	-0.003* (0.002)	-0.005** (0.002)
Women's average age	0.006*** (0.001)	0.008*** (0.001)	0.008*** (0.001)	0.011*** (0.001)
Household wealth	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Subnational fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Countries / regions	52/460	52/460	52/460	52/460
R-squared	0.51	0.63	0.69	0.77
N	3,228	3,242	3,248	3,251

*The dependent variable is the proportion of women who entered a first union before the age of 18 during the stated window. The denominator comprises girls and women aged 15-18 at 1 year through 15-22 at 5 years. Each column is a separate fixed-effects regression; the exposure window is matched to the outcome window (1, 2, 3 or 5 years at SPEI-3 < -1). * p<0.10; ** p<0.05; *** p<0.01.*

The association between drought and child marriage and unions emerges only over a longer time horizon.^{vii} It is small and non-significant at one, two and three years, and appears only at the five-year window, where prolonged drought is linked to a roughly 3.1 percentage-point rise in early union. This is consistent with drought working through slow, cumulative economic pressure rather than a single failed harvest.

The positive association holds regardless of how drought severity is defined or measured. Using stricter drought-severity thresholds does not change the overall pattern: the association stays positive. At the most extreme threshold, the estimate loses precision, most likely because far fewer regions experience drought that severe.

^{vii} Exposure is measured over four windows: 12, 24, 36 and 60 months. A 48-month (four-year) window was also tested but is not reported: it falls between the 36- and 60-month specifications and produces the same pattern, so including it would add length without changing the findings. The same four windows are used throughout the child marriage and unions analysis, including the flood and storm results below.

Early union is concentrated in rural, agriculture-dependent areas. Across every specification, the rural indicator is positive and highly significant, with rural prevalence around 6.5 percentage points above urban prevalence at the five-year window. Early union is also concentrated in rural, agriculture-dependent regions where rain-fed livelihoods are most exposed to prolonged drought. This is consistent with drought-related income loss triggering early union as a household coping response in rain-fed economies.

The relationship between drought and child marriage and unions is robust even when controlling for socioeconomic factors. Consistent with the literature, more years of women's average schooling is the most stable protective factor, associated with lower rates of early union, especially over the longer windows. Adding controls for schooling, household wealth and age structure does not change the drought effect's sign, magnitude or significance.

Most strikingly, the effect is concentrated where early marriage is not yet the norm. Prolonged drought raises recent under-18 union by roughly 4 percentage points in low- and middle-prevalence regions but has no detectable effect where the practice is already entrenched. Drought does not deepen early marriage where it is already common; it broadens the population at risk, drawing in households that would not otherwise have married a daughter early.

Drought and contraceptive use — and the storm counterpoint

Contraceptive use is the other outcome where drought leaves a clear mark, although here it points in a protective direction. **More prolonged drought is associated with higher current contraceptive use** among girls and women aged 15-24, for both any-method and modern-method use, and the association strengthens at stricter severity thresholds (see Table 5).

Table 5: Effect of drought exposure on current contraception use among girls and women aged 15-24, with demographic and socioeconomic controls

	Any contraception			Modern contraception		
	M1	M2	M3	M4	M5	M6
Drought (SPEI < -1)	0.040*** (0.011)			0.035*** (0.010)		
Drought (SPEI < -1.5)		0.068*** (0.019)			0.055*** (0.017)	
Drought (SPEI < -2)			0.072* (0.040)			0.041 (0.034)
Rural (vs urban)	-0.024*** (0.004)	-0.024*** (0.004)	-0.024*** (0.004)	-0.025*** (0.004)	-0.025*** (0.004)	-0.025*** (0.004)
Women's average years of education	-0.037*** (0.004)	-0.036*** (0.004)	-0.037*** (0.004)	-0.034*** (0.004)	-0.034*** (0.004)	-0.034*** (0.004)
Women's average age	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)
Household wealth	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)
Subnational fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Countries / regions	52/460	52/460	52/460	52/460	52/460	52/460
R-squared	0.72	0.72	0.72	0.75	0.75	0.75
N	3,251	3,251	3,251	3,251	3,251	3,251

Each column corresponds to a separate fixed-effects regression. Dependent variables are subnational-stratum-year proportions (0-1) among women and girls aged 15-24 currently using any contraception or a modern method. Drought exposure is the share of months in the past 1 year with SPEI-3 below three severity thresholds (-1, -1.5, -2); each is entered in a separate regression. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

The reading favoured, cautiously, is fertility postponement under economic stress: **as drought erodes household resources, young women appear more likely to use contraception to delay childbearing** (a demand-side response).

Storms, if anything, point the other way. Storm exposure carries negative estimates, reaching significance when measured as an event count – a fall of roughly 1.4 percentage points per additional storm (see Table 6).

Table 6: Effect of storm exposure on current contraception use among girls and women aged 15-24, with demographic and socioeconomic controls

	Any contraception		Modern contraception	
	M1	M2	M3	M4
Storm exposure	-0.016 (0.010)		-0.017* (0.009)	
Storm count		-0.014** (0.007)		-0.012* (0.007)
Rural (vs urban)	-0.029*** (0.004)	-0.030*** (0.004)	-0.029*** (0.004)	-0.029*** (0.004)
Women's average years of education	-0.045*** (0.005)	-0.044*** (0.005)	-0.041*** (0.004)	-0.040*** (0.004)
Women's average age	0.008*** (0.003)	0.008*** (0.003)	0.006** (0.002)	0.006** (0.002)
Household wealth	-0.001*** (0.001)	-0.001*** (0.001)	-0.002*** (0.000)	-0.002*** (0.000)
Subnational fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Countries / regions	52/318	52/318	52/318	52/318
R-squared	0.75	0.75	0.77	0.77
N	2,424	2,424	2,424	2,424

Each column corresponds to a separate fixed-effects regression. Dependent variables are subnational-stratum-year proportions (0-1) among girls and women aged 15-24 currently using any contraception or a modern method. Storm exposure is a binary indicator for any storm event in the past 1 year; the count specification replaces it with the number of storm events recorded for the region in that survey year. Each measure is entered in a separate regression. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

The contrast with drought is intuitive: slow-onset drought works through the economic, demand-side channel that raises use, while an acute storm is more likely to disrupt the supply side – damaging clinics, roads and stocks so that use falls where events cluster. We offer this as a hypothesis rather than a settled finding.

6.4 Conclusion of secondary analysis findings

Across three climate hazards and three SRHR outcomes, the secondary analysis points to one dominant finding. Drought is acting most clearly on early marriage and on contraceptive use, while floods leave almost no trace and storms matter only at the margins.

The clearest and most consistent finding is the link between drought and early marriage. The effect does not show up after one year of drought, or even two or three; it appears once a drought has lasted for around five years, where it raises early marriage by about 3 percentage points. This holds whether or not we account for schooling, household wealth and age. It points to the slow effects of years of drought as what pushes families towards marrying daughters early. Floods show no association with early marriage at any horizon. Storms are associated with a small, short-run decline in the unadjusted models, which disappears once controls are added.

Contraceptive use is the one outcome where drought's influence runs in a protective direction: prolonged drought is associated with higher use, and the association strengthens as drought becomes more severe, which is consistent with families postponing childbearing under economic stress. Floods show no association while storms point the other way, with use somewhat lower where storm events cluster, consistent with acute disruption to the supply of services.

No climate hazard shows a robust association with partner violence (physical, sexual or combined) in either the baseline or controlled models, across all severity thresholds and exposure measures. The one consistent signal is protective and non-climatic: regions where girls have more schooling report less partner violence. Because the measure is narrow and the sample is smaller, this is best read as no measurable region-level signal on this dimension, rather than evidence that climate leaves girls' safety untouched.

The effect on girls is therefore narrow and specific, not spread evenly across all outcomes. It works mainly through slow-onset drought and the economic strain it creates, and it lands hardest on early marriage and on when girls start having children. Rural girls fare worse on early marriage and contraceptive use, but not on intimate partner violence, which is as common in rural as in urban areas. Cutting across these findings, keeping girls in school is the single clearest protection and the lever policymakers can most directly act on.

7. Findings from primary data collection

This section presents findings from the survey, qualitative interviews and focus groups. Together, these methods bring girls' and young women's own voices and lived experiences to the patterns identified in the literature review and secondary statistical analysis. We begin with a profile of survey respondents, before examining the climate events girls and young women experienced and the impacts on their households and communities. We then turn to SRHR outcomes (both what the girls and young women experienced themselves and what they observed in their communities), structured around the three pathways in our conceptual framework.

7.1 Overview of survey respondents: demographics

Survey data was collected from 5,000 adolescent girls and young women across Bangladesh, Kenya, Peru, Senegal and Zimbabwe. These responses give a timely and critical snapshot of how climate-related events are shaping the lives, health, safety and opportunities of girls and young women.

Where girls and young women live: Just over half of participants live in **urban areas (54.8 per cent)** while just under half live in **rural areas (45.1 per cent)**.

Age and gender: All survey respondents are **female** and aged between **15 and 24 years**. Most are young women aged **20 to 24 (70.3 per cent)** while **under a third** are adolescent girls aged **15 to 19 (29.7 per cent)**.

Minority group identity: Many participants also belong to groups that may face additional barriers or exclusion. Overall, **62.0 per cent** of girls and young women identified with at least one minority group:

- **26.3%** identified as Indigenous
- **18.7%** identified as a religious minority
- **13.7%** identified as a racial or ethnic minority
- **11.1%** identified with another minority group

- **9.4%** identified as a linguistic minority
- **7.7%** identified as displaced or as a refugee
- **3.9%** identified as a person with a disability
- **1.1%** identified as LGBTIQ+

Household income: Girls and young women came from households with a range of income sources. The most common source was their **own business or self-employment (29.1 per cent)**, followed closely by **agricultural activities such as farming, livestock or fishing (28.2 per cent)**. A further **21.4 per cent** reported **formal or salaried employment** as their household's main source of income.

7.2 Overview of respondents: climate event experienced

Extreme heat and flooding stood out as the climate events with the most damaging impact on girls and young women.

When asked which event had most severely affected them and their community, **one in three respondents selected extreme heat (33.0 per cent)**, while **more than one in four selected flooding (27.6 per cent)**. Together, **just over three in five girls and young women said extreme heat or flooding had the most severe impact on them and their community.**

The picture, however, extends beyond heat and floods. Girls and young women also identified **drought (13.1 per cent)** and **extreme cold (12.8 per cent)** as major shocks, followed by **severe storms (8.7 per cent)**, **landslides or mudslides (3.3 per cent)** and **wildfires (1.4 per cent)**, as shown in Table 7.

These findings show that climate change is being felt in different ways across communities. For some girls and young women, the greatest threat is extreme heat. For others, it is flooding, drought, cold, storms or wildfires. This matters because different climate events create different risks, from damage to homes and livelihoods to disrupted health services, education, safety and care. The sections that follow unpack how different climate events affect **households, communities, as well as girls and young women themselves.**

Table 7: Experience of climate event in the last two years^{viii}

Climate event with the most severe impact on girls' communities	%	N
Extreme heat	33.0%	1,650
Flood	27.6%	1,381
Drought	13.1%	657
Extreme cold	12.8%	642
Severe storm (typhoon/cyclone/hurricane)	8.7%	434
Landslide/mudslide	3.3%	167
Wildfires	1.4%	69

Sample: 5,000

7.2.1 Qualitative insights: types of events experienced

The climate events described by participants are the entry point to this report's analysis. Each event sets in motion one or more of the three pathways through which climate change affects girls' and young women's sexual and reproductive health and rights (health system breakdown, household economic pressure and societal protection collapse). Documenting which events girls actually lived through, and which stayed with them, grounds the impact analysis that follows. The droughts, floods and storms

^{viii} Respondents were asked to identify the climate-related event that had the most severe impact on girls and young women in their community. Respondents could select **one response only**. Percentages are calculated out of the full sample of girls and young women surveyed (**n=5,000**). Percentages may not add up to exactly 100% due to rounding.

described below are not the subject of the study in themselves, but the shocks that trigger the disruptions examined in this report. All accounts presented in the qualitative insights reflect the locations referenced in Section 5.3 and should not be read as representative of the country as a whole.

Droughts and floods were the two most widely reported climate events across the interviews and focus groups. Droughts dominate in Kenya and Zimbabwe while flooding is the dominant event in Bangladesh and Senegal. Participants in Senegal described flooding concentrated in the rainy season, with water entering homes and standing in living spaces for extended periods, alongside coastal erosion and sea encroachment that has displaced entire fishing communities. In Kenya, some participants reported experiencing both droughts and floods. In Peru, weather events are more mixed: participants described floods driven by El Niño weather patterns, alongside extreme heat, mudslides and winds strong enough to strip roofs from houses and sweep away infrastructure.

Beyond these dominant events, girls and young women identified a wider range of climate-related hazards that compound or accompany major climate events. Heavy rainfall was reported across Bangladesh, Zimbabwe and Peru, and lightning strikes were mentioned as a danger in both Bangladesh and Peru. In Bangladesh, participants described Kalbaishakhi storms (violent local storms occurring in the Bengali month of Baisakh), alongside cyclones, monsoons, riverbank erosion, hailstorms and thunderstorms. Earthquakes and whirlwinds were mentioned in Peru, while flash floods were reported in Zimbabwe. Girls and young women also spoke of extreme heat in both Peru and Kenya, with Mia (16, Peru) saying: *“The heat is unbearable.”*

Senegalese participants described flooding less as a discrete shock than as a recurring seasonal condition, with water persisting in and around the home. Senegal was also the only study country in which participants described slow-onset coastal change, rather than sudden-onset events, as a primary climate hazard.

The events that stayed with them

Participants were asked to name the most significant weather event they remembered. In Bangladesh, the 2022 flood was the single most frequently cited event across the sample. Several participants recalled the water rising rapidly:

“During the 2022 flood ... the floodwater rushed in around 1:00 am while we were asleep ... My baby was only 22 days old. As we were trying to leave with the baby, the water kept rising. Eventually, I had to swim while holding my baby.” Afsana, 24, Bangladesh

“The flood of 2022 is the one I remember the most in my life, and I cannot forget it. Our houses were completely submerged, and we had to go to a shelter centre. In our area, two children drowned and died in the water.” Shahina, 19, Bangladesh

Tahmina (24, Bangladesh) described how the flood arrived without warning: *“We had gone to sleep normally at night, with no major issues apart from wind and rain. Suddenly, in the morning, we woke up and saw water rushing rapidly into our area ... Our only priority became saving our own lives.”* The 2022 flood left some areas waterlogged for up to 20 days. Another flood in 2024 was noted as less severe, though it still closed schools for a month. Sayma (22, Bangladesh) also described a significant flood in 2025: *“Last year, two of our relatives drowned.”* Rupa (15, Bangladesh), meanwhile, observed that the severity of floods seems to be increasing year on year.

In Kenya, participants consistently described the droughts of 2021, 2022 and 2023 as a prolonged multiyear event. Halima (24) reported losing 200 goats and sheep to these droughts, while Deka (19) singled out 2021 as the most significant year.

In Zimbabwe, the 2024-2025 drought was the most impactful event. As Chenai (21) put it: *“We had no harvests, no food and water.”* Participants also referenced earlier droughts in 2023-2024. For Melo (24), flash floods were the most severe event in her area.

In Peru, the 2017 El Niño flood emerged as the most significant climate event. Participants described helicopters evacuating residents, people swept by river currents and communities cut off entirely. The 2022 flood was also widely cited, alongside a major flood in 2023 and a heatwave in 2020.

In Senegal, no single event dominated. Instead, participants named floods across successive recent years: Astu and Huguette (19 and 23) cited the 2025 flood; Rose and Marie (20 and 24) the 2024 flood; and Madina (16) the 2023 flood. For Louise, Angelle and Sofia, (23, 15 and 16), the most significant event was not a sudden shock, but the gradual encroachment of the sea, which displaced their homes or livelihoods:

“The most significant event in my life remains the advance of the sea. Because of this, we were moved to [name of settlement]. Before this cataclysm, I lived in ... a fishing district where I carried out my activities freely and where I felt at home.” Louise, 23, Senegal

The sections that follow trace how these events impacted girls, young women and their communities, in the participants’ own accounts.

7.3 Household impacts

The scale of household disruption is alarming: more than 9 out of 10 girls and young women (91.6 per cent)^{ix} tell us that climate events are placing serious pressures on their household’s survival, health and stability. See Table 8 for the exact household impacts listed.

Almost half of the girls said climate events are having an impact on their household’s health (48.2 per cent), followed by loss of crops or livestock (46.6 per cent). Almost two out of five girls also reported that their households have reduced access to food (39.6 per cent) and reduced access to water (38.2 per cent).

The impacts do not stop at food and water. Many girls and young women also witnessed damage to the systems that help households function day to day, including roads or bridges (29.9 per cent) and income or employment (27.7 per cent). Almost one in four reported disrupted education (23.9 per cent), showing how climate shocks can quickly spill over into girls’ learning, routines and future opportunities. Based on this evidence, girls from across the five countries are telling us that climate events are not one-off disruptions. They are layered household crises, affecting what families eat, how they earn, whether they can travel safely, whether girls can keep learning, and whether households can stay healthy and supported.

^{ix} The figure **91.6 per cent** represents the proportion of girls and young women who selected **at least one negative household impact** for the question in Table 8. It was calculated by creating a combined “any household impact” variable: respondents were counted once if they selected one or more of the listed household impacts, including “Other” and excluding “None of the above” and “Prefer not to say”. This gives **4,579 out of 5,000 respondents**, or **91.6 per cent**. For transparency, the tables present the response options as they appeared in the survey wherever possible. In the main text, however, some related indicators are combined to support clearer interpretation. For example, “physical or mental health challenges” combines physical health problems and mental health challenges. The same approach is used in subsequent sections where closely related response options are discussed together in the narrative.

Table 8: Impact of climate-related events on households^x

As a result of the [climate-related event], have you experienced any of the following negative impacts on <u>your household</u>?	Frequency	Percentage
Physical or mental health challenges	2,410	48.2%
Loss of crops, livestock or farmland	2,330	46.6%
Reduced access to food	1,978	39.6%
Reduced access to water	1,911	38.2%
Damaged roads or bridges	1,495	29.9%
Loss of income or employment	1,386	27.7%
Reduced access to healthcare or damaged healthcare facilities	1,343	26.9%
Damage or loss of property	1,289	25.8%
Interrupted education	1,197	23.9%
Weakened community support or protection	833	16.7%
Loss of family member or friend	808	16.2%
Displacement or forced relocation	493	9.9%
None of the above	413	8.3%
Other	25	0.5%

Sample: 5,000

Who is most affected?

Girls told us that climate shocks can deepen existing inequalities, making already excluded groups even more at risk. The household impacts of climate events were widespread, but they were not felt equally, with the girls and young women already facing exclusion, rural disadvantage or livelihood insecurity often the ones whose households are hit hardest.

Minority girls and young women^{xi} were more likely to be part of households under serious climate-related pressure. Among girls and young women who identified with at least one minority group, **95.8 per cent** reported at least one negative household impact, compared with **84.8 per cent** of those who did not identify with a minority group. They were also more likely to report loss of crops or livestock (**53.0 vs 36.2 per cent**), reduced access to food (**49.0 vs 24.1 per cent**), reduced access to water (**45.3 vs 26.7 per cent**) and loss of income or employment (**34.6 vs 16.6 per cent**).

The food and income gaps are particularly concerning. Minority girls and young women were about twice as likely to report reduced access to food (**49.0 vs 24.1 per cent**) and loss of income or employment (**34.6 vs 16.6 per cent**). This suggests that climate shocks are deepening existing inequalities, especially around food, water and livelihoods.

Rural girls and young women were more exposed to household impacts when climate shocks hit land, water and livelihoods. Household impacts were more common among those living in rural areas (**93.7 vs 89.9 per cent**). Rural girls and young women were more than twice as likely to report loss of crops or livestock (**67.1 vs 29.8 per cent**) and about twice as likely to report reduced access to food (**54.5 vs 27.4 per cent**), reflecting how closely rural households depend on land, crops, livestock, water and local infrastructure.

^x Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (**n=5,000**).

^{xi} Overall, **62.0 per cent** of girls and young women identified with at least one minority group.

For girls and young women in agriculture-dependent households, climate shocks quickly became livelihood shocks. Among those whose household income came from farming, livestock or fishing, **94.7 per cent** reported at least one negative household impact, versus **90.4 per cent** of those from households relying on other income sources. Girls and young women from agriculture-dependent households were about twice as likely to report loss of crops or livestock (**71.7 vs 36.7 per cent**), showing how climate events can put household survival under pressure when income depends directly on natural resources.

Drought appears to cut deepest into the basics of household survival: food, water, crops and income. Among girls and young women whose main climate event was drought, **97.6 per cent** reported at least one negative household impact, versus **90.7 per cent** of those whose main event was something else. Girls and young women affected by drought were more than twice as likely to report reduced access to food (**75.2 vs 34.2 per cent**) and loss of income or employment (**52.7 vs 23.9 per cent**).

Zimbabwe shows the heaviest household-level burden across the five study countries: 98.3 per cent of girls and young women reported at least one negative household impact versus **89.9 per cent** across the other study countries combined. They were more than twice as likely to report loss of crops or livestock (**78.7 vs 38.6 per cent**), reduced access to food (**74.3 vs 30.9 per cent**) and loss of income or employment (**51.4 vs 21.8 per cent**). This points to a particularly heavy burden of household-level climate stress in Zimbabwe.

There was no statistically significant difference by age group. This means girls aged 15 to 19 and young women aged 20 to 24 reported household impacts at broadly similar levels.

Who is most affected at the household level? At a glance

Group	What stands out most	Key difference
Minority girls and young women	Food and income pressures	About twice as likely to report reduced access to food (49.0% vs 24.1%) and loss of income or employment (34.6% vs 16.6%)
Rural girls and young women	Loss of crops/livestock and food access	More than twice as likely to report loss of crops or livestock (67.1% vs 29.8%) and about twice as likely to report reduced access to food (54.5% vs 27.4%)
Agriculture-dependent households	Loss of crops/livestock	About twice as likely to report loss of crops or livestock (71.7% vs 36.7%)
Drought-affected girls and young women	Food and income shocks	More than twice as likely to report reduced access to food (75.2% vs 34.2%) and loss of income or employment (52.7% vs 23.9%)
Zimbabwe	Food, income and crop/livestock losses	More than twice as likely to report reduced access to food (74.3% vs 30.9%) and loss of income or employment (51.4% vs 21.8%)

7.4 Community impacts

Girls and young women are watching climate shocks disrupt daily life around them. They are telling us that climate events are not only affecting individual homes, but whole communities. **More than 9 out of 10 girls and young women noticed at least one negative impact in their community** after the main climate event (**91.1 per cent**). This is broadly similar to the share who reported impacts on their own household, showing that climate shocks are both personal and collective. See Table 9 for the exact community impacts listed.

The most visible community impacts are linked to livelihoods and basic needs. More than half of girls and young women noticed people in their community losing crops or livestock (**52.4 per cent**), making this the most widely reported community impact. This was followed by health problems (**48.9 per cent**), reduced access to food (**43.0 per cent**) and reduced access to water (**42.2 per cent**). Together, these findings show how quickly a climate event can become a wider community crisis. The impacts do not happen in isolation: when crops and livestock are lost, household income and food supplies can fall; when water becomes harder to access, health risks can rise; and when people's health is affected, families may find it even harder to recover. Girls and young women are showing us that climate shocks can set off a chain reaction, affecting livelihoods, food, water and health across entire communities.

Health and wellbeing impacts are also highly visible. Nearly half of girls and young women noticed **physical or mental health impacts** in their community after the main climate event (**48.9 per cent**).^{xii} Climate shocks are therefore affecting not only what communities eat and how they earn, but also people's health, stress and wellbeing.

Table 9: Impact of climate-related events on community

As a result of the [climate-related event], have you noticed <u>other people in your community</u> having experienced any of the following negative impacts?	Frequency	Percentage
Loss of crops, livestock or farmland	2,619	52.4%
Physical or mental health challenges	2,445	48.9%
Reduced access to food	2,151	43.0%
Reduced access to water	2,111	42.2%
Loss of income or employment	1,710	34.2%
Damaged roads or bridges	1,598	32.0%
Damage or loss of property	1,541	30.8%
Interrupted education	1,535	30.7%
Reduced access to healthcare or damaged healthcare facilities	1,524	30.5%
Loss of family member or friend	1,141	22.8%
Weakened community support or protection	1,005	20.1%
Displacement or forced relocation	900	18.0%
None of the above	445	8.9%
Other	26	0.5%

Sample: 5,000

Community disruption is widespread, but it is not shared equally. The data shows that girls and young women who are already closer to exclusion, rural livelihoods or climate-sensitive income sources are more likely to see climate impacts spreading through the communities around them.

Minority girls and young women are more likely to see climate shocks disrupting the essentials of daily life around them. Among girls and young women who identify with at least one minority group, 94.8 per cent reported at least one negative community impact versus 85.1 per cent of those who did not identify with a minority group. **The largest gaps were around food, water and income:** minority girls and young women were nearly twice as likely to report reduced access to food (52.5 vs 27.5 per

^{xii} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (n=5,000).

cent), reduced access to water (49.3 vs 30.7 per cent) and loss of income or employment (41.0 vs 23.1 per cent). This suggests that climate shocks are not only affecting communities but also widening existing inequalities.

Girls and young women living in rural areas are especially exposed to disruption linked to land, water and livelihoods. Community impacts were more common among those living in rural areas or villages (93.9 vs 88.8 per cent). The clearest rural gap was loss of crops or livestock: rural girls and young women were nearly twice as likely to report this impact (70.2 vs 37.8 per cent). They were also much more likely to report reduced access to food (56.0 versus 32.4 per cent) and reduced access to water (49.3 vs 36.4 per cent). This reflects how closely rural life is tied to crops, livestock, water, land and local infrastructure.

For girls and young women from agriculture-dependent households, community disruption is closely tied to livelihood loss. Among those whose household income came from farming, livestock or fishing, 94.5 per cent reported at least one negative community impact versus 89.7 per cent of those from households relying on other income sources. The biggest gap was loss of crops or livestock (72.5 vs 44.5 per cent), followed by reduced access to food (55.5 vs 38.1 per cent) and loss of income or employment (42.1 vs 31.1 per cent). This shows how quickly climate events can undermine the resources that families and communities depend on to survive.

Drought stands out as one of the most damaging climate events for community survival. Among girls and young women whose main climate event was drought, 98.0 per cent reported at least one negative community impact versus 90.1 per cent of those whose main event was something else. Girls and young women affected by drought were about twice as likely to report reduced access to food (77.5 vs 37.8 per cent) and loss of income or employment in their communities (59.4 vs 30.4 per cent). Drought appears to affect several foundations of community life at once: food, water, crops, livestock and income.

Zimbabwe shows the heaviest community-level burden across the five study countries. In Zimbabwe, 98.2 per cent of girls and young women reported at least one negative community impact versus 89.3 per cent across the other study countries combined. Girls and young women in Zimbabwe were more than twice as likely to report reduced access to food (**79.2 vs 34.0 per cent**) and loss of income or employment (**60.9 vs 27.5 per cent**), and nearly twice as likely to report loss of crops or livestock (**83.3 vs 44.6 per cent**). Reduced access to water was also much higher in Zimbabwe (**65.0 vs 36.5 per cent**), pointing to severe pressure on community systems.

There was no statistically significant difference by age group. This suggests that adolescent girls and young women are seeing community-level impacts at broadly similar levels.

7.4.1 Qualitative insights: Community and personal impacts

Impact on girls' communities

Across all five countries, girls and young women described the sweeping devastation that floods, storms and droughts brought to their communities. The physical destruction was immediate and widespread. Houses, schools, hospitals, roads and mosques^{xiii} were damaged or submerged entirely in the case of floods. In Peru, where participants said most homes are built from adobe (mud bricks made from clay and sand), flooding proved especially destructive to homes. Makeshift shelters made of plastic sheets became temporary homes for the displaced, while others crowded into temporary emergency shelters such as schools.

“They cried because they had lost everything.” Isabela, 21, Peru

In Senegal, homes deteriorated more gradually, with rainwater and mould damaging structures until they became uninhabitable, and roads were left impassable for weeks at a time. The damage came less from the force of the water than from the failure of sanitation infrastructure. Participants described septic tanks and drainage overflowing into homes and streets during the rainy season, leaving standing

^{xiii} Damaged mosques were only mentioned in Bangladesh.

wastewater that persisted for months. Marie (24, Senegal) spoke of sewage invading her home to the extent that she could see “*shrimp and fish inside my house*”, while others described children playing in the stagnant wastewater outside their doors.

Food and water insecurity rose rapidly. Paddy fields and crops were submerged across Bangladesh and failed in Zimbabwe due to drought. Livestock was swept away in Bangladesh or died in Kenya from the heat and lack of water. Families in Zimbabwe reduced their meals from three a day to just one, taken in the evening. Afsana (24, Bangladesh) also shared this experience: “*People reduced their household shopping and ate less food since there was no income or work at that time.*” Markets closed or became unreachable, and where shops remained open, prices for food, essential goods, candles, and even phone charging surged dramatically. In Kenya, health facilities saw malnutrition cases overwhelm their capacity. Communities in Peru were forced to collect water from canals and boil it, as clean water became scarce. Participants in Senegal reported limited access to safe drinking water alongside prolonged loss of electricity, and households there cut back the number of meals they ate.

Livelihoods were destroyed. Farming was the main livelihood for many of the girls and young women we spoke to, and some had lost entire harvests. Income stopped and many families were unable to meet basic needs. Families diverted what little income remained towards food, abandoning school fees, which contributed to rising school dropouts, especially in Kenya and Zimbabwe. For others, the crisis triggered outward migration: to Dhaka for garment work in Bangladesh and to cities in Zimbabwe in search of employment:

“Many women, even those who were married, had to go to the city to look for employment to support families. Thus, families were disintegrated and some ended up divorcing.” Paidamoyo, 21, Zimbabwe

In Kenya, Halima (24) described families moving with their herds in search of pasture, with some crossing into Ethiopia and others travelling further south within the country. In Senegal, fishing households were among the worst affected, and participants described a seasonal pattern of male out-migration that concentrated responsibility on the women left behind. The seasonal rhythm of displacement in Senegal also saw households moving in with relatives until the rains ended and returning only gradually.

Dengue fever rose sharply in Peru, and common fevers and waterborne illnesses spread widely in Kenya, Bangladesh and Peru. In Senegal, girls and young women linked standing wastewater directly to illness, describing dermatoses, scabies and diarrhoea among children, as well as rising malaria as mosquito populations multiplied in the stagnant water. In Kenya, hygiene standards at medical facilities deteriorated due to water shortages. In Zimbabwe, girls reported that accessing water for bathing during menstruation became a serious challenge.

The human costs also rose, with some of the girls and young women reporting increased deaths as a result of people drowning in floods. Communication and electricity networks failed in Peru and Bangladesh, severing communities from information and support networks when they needed them most.

These impacts activate the disruption pathways explored in this study: health system breakdown as facilities flooded, supplies vanished, and services became inaccessible; household economic pressure as livelihoods collapsed, food became scarce, and families were forced into impossible trade-offs; and societal protection collapse as communities fragmented, families separated through forced migration, and the structures that ordinarily safeguard women and girls further deteriorated.

Personal and emotional impact

Behind the picture of community devastation sit individual experiences of loss. Across all countries, girls and young women participating in this study had personally endured the events they described, and the emotional weight of those experiences ran through their accounts. Cherop and Nafula (17 and 15, Kenya) described the drought as something that “*affected my wellbeing emotionally as we lost all our livestock.*” In Peru, Valentina (23) lost a cousin and two nephews to an overflowing river. Susana (18, Peru) recalled a childhood flood in which her school supplies were destroyed: “*I was crying because*

my rolling backpack and my notebooks had gotten wet ... practically everything we had bought was lost." For several participants in Senegal, the loss was permanent rather than temporary. Sofia (16, Senegal) described how her father lost his shop to the advancing sea, and the family moved to Dakar in 2016; since then, she has struggled to find transport to school. Rose (20, Senegal) left her home for good when it collapsed under the same coastal encroachment.

For others, the harm accumulated more quietly, through the conditions in which they were left to live. Where wastewater entered the home and stayed there, participants described the effects on their own bodies rather than on the structure around them. Marie (24, Senegal) linked the same standing water to ill health: *"During the winter, I meet a lot of health problems because of the flooding in my house."* For pregnant participants, this environmental health burden fed directly into the SRHR pathway: the same standing water and impassable paths that made them ill also kept them from antenatal visits and clinic care.

Girls and young women also described taking on economic burdens that would ordinarily fall to adults. In Zimbabwe, Chenai (21) spoke of selling used clothes to raise money for food while her husband left to seek work elsewhere: *"Sometimes he never calls home."* Rutendo (16, Zimbabwe) took on casual labour to support her grandparents. In Senegal, young women described losing businesses they had built: one had opened a cosmetics shop only to close it when the floods came, and another could no longer sell at the fish market. Others were kept from working at all, staying at home through the flood season to clear wastewater or to care for younger children. These responses reflect both the resilience of the young women participating in this study and the degree to which climate events shift survival responsibilities onto the youngest and most vulnerable household members.

Education was among the clearest casualties in Senegal, although the mechanism differed from the school closures reported elsewhere. What kept participants out of the classroom was infrastructure failure at home and on the route to school rather than damage to the school itself. Alongside the flooded paths, the need to clear water and complete housework took precedence in the mornings, leaving participants routinely late, while the absence of electricity made studying after dark impractical:

"I dropped out of school because of the difficult living conditions: access to water was limited and there was no electricity. I couldn't learn my lessons, and my mother forbade me to light candles for fear that I would fall asleep with them." Penda, 24, focus group, Senegal

The convergence of grief, economic stress and disrupted routines produced what several participants described as a lasting emotional toll that persisted well beyond the immediate disaster. In Kenya, Guyatu (22) was married early after her parents lost their livelihood to drought and took on caregiving responsibilities for younger siblings at an age when she should have been in school. Her story, like many others in this study, illustrates how the personal and structural are inseparable: the decisions families make under climate-induced pressure shape individual lives in ways that outlast the flood or the drought.

Having set out how climate events affected communities and individuals, we turn to how they responded, both collectively and individually.

7.5 Personal impacts of climate-related events on SRHR outcomes

7.5.1 How do climate shocks make essential health services harder to reach?

Girls and young women are telling us that climate shocks are cutting them off from care when they may need it most. More than two in three girls and young women said at least one SRH service became harder to access after the main climate event (67.7 per cent). Climate shocks are not only damaging homes and communities, but also disrupting access to care, information, protection and dignity (see Table 10 for the full pattern).

Table 10: Increased difficulty accessing SRHR services due to climate-related event (personal)^{xiv}

As a result of the [climate-related event], have <u>you</u> found accessing any of the following sexual health services more difficult than before the [climate-related event]?	Frequency	Percentage
Menstrual products or clean water to manage menstruation	2,301	46.0%
Sexual health and relationship education or sexual health counselling	1,454	29.1%
Pregnancy and delivery care	1,191	23.8%
Child, early and forced marriage prevention and response services	983	19.7%
GBV prevention and response services	925	18.5%
Sexually transmitted infection and disease services, including HIV	855	17.1%
Contraception services	834	16.7%
None of the above	1,556	31.1%
Prefer not to say	58	1.2%
Other	40	0.8%

Sample: 5,000

Two patterns stand out from the personal-level results. The access points girls lose first are those tied to dignity and information rather than clinical services.

Managing menstrual health is the clearest access crisis. Menstrual products or clean water to manage menstruation was the single most reported access difficulty, cited by nearly half of respondents (46.0 per cent). This matters because menstrual health depends on more than products alone: girls and young women need clean water, privacy, safe facilities and the ability to move safely to get what they need.

Information and education are the second casualty. Sexual health information, education or counselling ranks second (29.1 per cent), ahead of pregnancy care, child marriage, gender-based violence and contraception services. The prominence of information and education here is the clearest survey evidence for the role of comprehensive sexuality education, and for protecting it as a frontline service during crises rather than treating it as an optional extra.

Protection services are being disrupted at exactly the wrong time. Almost one in five girls and young women reported difficulty accessing child marriage prevention and response services (19.7 per cent) or GBV ones (18.5 per cent). This is a serious warning sign: when climate shocks increase stress, displacement, insecurity and harmful coping pressures, the services designed to protect girls may become harder to reach.

Who is most affected?

The girls facing the biggest barriers are often those already pushed furthest from support. Service disruption is not felt equally. The clearest gaps appear among girls and young women facing minority-group exclusion, rural distance, livelihood insecurity or climate shocks that put pressure on water, food and income.

Minority-group girls and young women face a much wider access gap. More than three in four girls and young women who identify with at least one minority group report difficulty accessing at least

^{xiv} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (n=5,000). Overall, **67.7 per cent** selected at least one service that became harder to access, including "Other" (n=3,386).

one SRHR service (77.1 vs 50.9 per cent). They are **more than twice as likely** to report barriers to sexually transmitted infection/HIV services (**21.9 vs 9.3 per cent**) and GBV prevention and response services (23.7 vs 10.0 per cent), and twice as likely to report barriers to child marriage prevention and response services (24.2 vs 12.3 per cent). They also report higher barriers to menstrual health access (54.7 vs 31.8 per cent) and sexual health information or counselling (35.2 vs 19.1 per cent). This points to a serious equity gap in who can access care, information and protection after climate shocks.

Rural girls and young women face extra barriers when services become harder to reach. Among those living in rural areas or villages, 71.8 per cent report difficulty accessing at least one SRHR service versus 63.4 per cent of those living in cities or towns. Rural girls and young women are **almost twice as likely** to report barriers to child marriage prevention and response services (**26.1 vs 14.4 per cent**). They also report higher barriers to menstrual health access (52.5 vs 40.8 per cent), pregnancy and delivery care (28.5 vs 20.1 per cent) and GBV prevention and response services (22.9 vs 14.9 per cent). This reflects the added pressure of distance, disrupted transport, water access and fewer local services.

When livelihoods depend on the land, care becomes harder to reach. Among girls and young women whose household income comes mainly from farming, livestock or fishing, 73.8 per cent report difficulty accessing at least one SRHR service versus 64.5 per cent of those from households relying on other income sources. They report higher barriers to pregnancy and delivery care (32.1 vs 20.6 per cent), child marriage prevention and response services (26.0 vs 17.2 per cent) and menstrual health access (52.8 vs 43.4 per cent). When income depends on land, water, crops, livestock or fishing, climate shocks can quickly affect whether girls can reach the services they need.

Drought is a major warning sign for girls' access to care. Those whose main climate event was drought are more likely to report difficulty accessing at least one SRHR service (83.7 vs 64.6 per cent). Girls and young women affected by drought are **almost twice as likely** to report barriers to child marriage prevention and response services (**33.9 vs 17.5 per cent**) and GBV prevention and response services (**31.5 vs 16.5 per cent**). They also report much higher barriers to menstrual health access (69.6 vs 42.5 per cent) and sexual health information or counselling (39.6 vs 27.5 per cent). When water, food and income are under pressure, girls' access to dignity, care and protection also comes under pressure.

Zimbabwe shows the highest level of service disruption. Among girls and young women in Zimbabwe, **85.7 per cent** report difficulty accessing at least one SRHR service versus 62.5 per cent across the other study countries combined. They are **more than twice as likely** to report barriers to GBV prevention and response services (**33.9 vs 14.6 per cent**) and child marriage prevention and response services (**35.5 vs 15.7 per cent**). They also report extremely high barriers to menstrual health access (67.9 vs 40.6 per cent), contraception services (25.7 vs 14.4 per cent) and sexual health information or counselling (36.8 vs 27.2 per cent). This points to intense pressure on girls' access to care, dignity and safety in Zimbabwe.

Adolescent girls face particular barriers to dignity and protection. Girls aged 15 to 19 are more likely than young women aged 20 to 24 to report barriers to menstrual health access (50.2 vs 44.3 per cent), child marriage prevention and response services (23.7 vs 18.0 per cent) and GBV prevention and response services (21.8 vs 17.1 per cent). This suggests that adolescent girls may face particular barriers in accessing dignity-related support and protection services after climate events.

7.5.2 How do climate shocks impact girls' sexual and reproductive health?

Girls and young women are telling us that climate events are not only damaging homes, livelihoods and community infrastructure. They are also reaching into some of the most private parts of their lives: their health, relationships, safety, care and support.

More than four in 10 girls and young women report at least one personal SRHR situation after the main climate event (42.1 per cent). This shows that climate shocks are not only environmental or economic events. For many girls and young women, they are also linked to pregnancy, early marriage, pressure, anxiety and reduced support at moments when care and protection matter most. Together, these findings suggest that climate shocks can affect not only services, but also the relationships,

information and support networks girls rely on when making decisions about their health and futures (see Table 11 for the exact personal SRHR situations listed).

Pregnancy health and childbirth-related issues are particularly visible. One in five girls and young women told us about their pregnancy- and childbirth-related issues (20.5 per cent). This may reflect how climate shocks can disrupt access to healthcare, transport, nutrition, clean water and safe delivery support, all of which are especially important during pregnancy and childbirth.

Table 11: Experience of SRHR situation due to climate-related event (personal)^{xv}

As a result of the [climate-related event], have <u>you personally</u> experienced any of the following sexual health situations?	Frequency	Percentage
Pregnancy health or childbirth-related issues	1,027	20.5%
Reduced support from a trusted person related to sexual health	629	12.6%
Getting married before 18	552	11.0%
Unintended pregnancy	531	10.6%
Increased anxiety related to sexual health	463	9.3%
Pressure to marry or get pregnant	457	9.1%
Sexually transmitted infection/HIV	329	6.6%
Other	61	1.2%
Prefer not to say	47	0.9%
None of the above	2,848	57.0%

Sample: 5,000

Who is most affected by personal SRHR impacts?

The data shows that personal SRHR impacts are not felt equally. The clearest gaps appear among girls and young women facing age-related responsibilities, minority-group exclusion, rural barriers, livelihood insecurity and drought-related pressure on food, water and income.

Young women aged 20 to 24 report higher levels of personal SRHR impacts than adolescent girls aged 15 to 19. Nearly half of young women aged 20 to 24 report at least one personal SRHR situation (**47.3 vs 29.8 per cent**). They are about **twice as likely** to report pregnancy health or childbirth-related issues (**24.1 vs 12.1 per cent**) and unintended pregnancy (**12.4 vs 6.3 per cent**). They are also almost twice as likely to report reduced support from a trusted person (**14.6 vs 7.9 per cent**). This likely reflects different life stages, with older respondents more likely to be pregnant, partnered, married, parenting or already navigating SRH services.

Minority-group girls and young women face a much wider risk gap. Nearly half of girls and young women who identify with at least one minority group report at least one personal SRHR situation (**48.6 vs 31.5 per cent**). They are **nearly three times as likely** to report unintended pregnancy (**14.2 vs 4.8 per cent**) and **more than twice as likely** to report reduced support from a trusted person (**15.8 vs 7.4 per cent**) and pressure to marry or get pregnant (**11.5 vs 5.3 per cent**). They are also more likely to report experiencing pregnancy health or childbirth-related issues (23.9 vs 15.0 per cent) and getting married before 18 (13.2 vs 7.5 per cent). This points to a wider pattern: climate shocks may deepen

^{xv} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (**n=5,000**). "Pregnancy health or childbirth-related issues" combines miscarriage, health problems during pregnancy, and complications during childbirth or with a baby. Overall, **42.1 per cent** selected at least one negative sexual and reproductive health experience.

existing inequalities by making care, information, protection and trusted support harder to reach for girls and young women already facing exclusion.

Rural girls and young women face particular risks around pregnancy and early marriage. Rural and urban respondents report at least one personal SRHR situation at broadly similar levels overall, but the specific risks differ. Rural girls and young women are more likely to report pregnancy health or childbirth-related issues (**25.3 vs 16.7 per cent**), unintended pregnancy (**13.9 vs 8.0 per cent**) and getting married before 18 (**13.7 vs 8.9 per cent**). This may reflect the added pressure climate events place on rural communities, where distance to services, disrupted transport, livelihoods tied to land and water, and fewer local support options can make timely care and protection harder to reach.

When household income depends on farming, livestock or fishing, personal SRHR risks also rise. Girls and young women from agriculture-dependent households are more likely to report at least one personal SRHR situation (45.1 vs 40.9 per cent). They also report higher levels of pregnancy health or childbirth-related issues (26.1 vs 18.4 per cent), unintended pregnancy (14.9 vs 8.9 per cent), getting married before 18 (14.9 vs 9.5 per cent) and pressure to marry or get pregnant (10.5 vs 8.6 per cent). This suggests that when climate shocks damage crops, livestock or income, the pressure can spill over into girls' health, relationships and life choices.

Drought places particular pressure on girls' health, choices and relationships. Girls and young women whose main climate event is drought are **almost twice as likely** to report unintended pregnancy (**17.5 vs 9.6 per cent**). They are also more likely to report pregnancy health or childbirth-related issues (25.9 vs 19.7 per cent), getting married before 18 (14.2 vs 10.6 per cent) and pressure to marry or get pregnant (11.9 vs 8.7 per cent). Drought is often a slower-moving crisis, but these findings show how deeply personal its effects can become: as food, water and income come under strain, girls' access to care, support and choice can also come under strain.

Girls in different countries have different SRHR pressures. Those in Peru have the highest level of at least one personal SRHR situation (56.8 vs 38.4 per cent) compared with girls and young women across the other countries combined. Senegal stands out for pressure to marry or get pregnant: girls and young women there are **nearly three times as likely** to report this pressure (**19.1 vs 6.7 per cent**). Zimbabwe stands out for unintended pregnancy, where girls and young women are **more than twice as likely** to report this experience (**19.7 vs 8.3 per cent**), as well as pregnancy health or childbirth-related issues (25.1 vs 19.4 per cent) and getting married before 18 (14.1 vs 10.3 per cent). These differences matter because climate-related SRHR risks do not look the same everywhere. Responses need to be shaped around the specific pressures girls and young women are reporting in each context.

7.6 Observed SRHR issues affecting other girls and young women in the community

7.6.1 Which SRHR services are becoming harder to access for girls and young women in the community

Participants are seeing climate shocks cut other girls and young women off from essential SRHR services. Overall, more than three in four (76.2 per cent) said they had noticed more girls and young women in their community struggling to access at least one SRHR service.

The biggest access issue girls notice is menstrual health. Overall, almost half (49.8 per cent) said they had noticed more girls and young women struggling to access menstrual products or clean water to manage menstruation (see Table 12 for other community-level access issues).

Table 12: Increased difficulty accessing SRHR service due to climate-related event (community)^{xvi}

As a result of the [climate-related event], have you noticed more girls and young women in your community finding it difficult to access any of the following sexual health services?	Frequency	Percentage
Menstrual products or clean water to manage menstruation	2,489	49.8%
Sexual health and relationship education or sexual health counselling	1,856	37.1%
Pregnancy and delivery care	1,463	29.3%
Child, early and forced marriage prevention and response services	1,235	24.7%
Contraception services	1,199	24.0%
GBV prevention and response services	1,184	23.7%
Sexually transmitted infection and disease services, including HIV	1,090	21.8%
Other	39	0.8%
None of the above	1,191	23.8%

Sample: 5,000

Drought is the clearest warning sign for community-wide service disruption. Among participants whose main climate event was drought, 88.6 per cent said they had noticed more girls and young women in their community struggling to access at least one SRHR service, compared with 74.3 per cent among those whose main event was something else. Specifically, 73.7 per cent noticed more difficulty accessing menstrual products or clean water, and 51.1 per cent noticed more difficulty accessing sexual health education or counselling.

Zimbabwe and Kenya show the highest overall levels of girls noticing services becoming harder to access. In Zimbabwe, 88.4 per cent of girls and young women said they had noticed more girls and young women in their community struggling to access at least one SRHR service, compared with 73.1 per cent across the other study countries. In Zimbabwe, the most widely reported barriers are menstrual products or clean water (72.8 per cent), sexual health education or counselling (43.1 per cent), GBV prevention and response services (40.3 per cent) and child marriage prevention and response services (36.1 per cent). In Kenya, girls most often noticed difficulty accessing menstrual products or clean water (66.0 per cent), sexual health education or counselling (52.7 per cent), pregnancy and delivery care (43.2 per cent), and sexually transmitted infection/HIV services (36.2 per cent).

7.6.2 Which SRH risks are increasing for girls and young women in the community?

Girls and young women are also seeing climate shocks increase SRH issues around them, with three in four reporting they had noticed more girls and young women in their community experiencing at least one negative sexual health situation after the main climate event (75.0 per cent).

The most visible community-level SRH issues were linked to pregnancy, childbirth and early marriage. Nearly half noticed more pregnancy health or childbirth-related issues, including miscarriage, health problems during pregnancy or complications during childbirth or with a baby (49.4 per cent). More than one in three noticed more girls getting married before the age of 18 (36.3 per cent), as shown in Table 13.

^{xvi} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (n=5,000). Overall, **76.2 per cent** selected at least one service that became harder for girls and young women in their community to access.

Table 13: Experience of SRHR situation due to climate-related event (community)^{xvii}

As a result of the [climate-related event], have you noticed <u>more</u> girls and young women in your community experiencing any of the following sexual health situations?	Frequency	Percentage
Pregnancy health or childbirth-related issues	2,471	49.4%
Getting married before 18	1,813	36.3%
Unintended pregnancy	1,628	32.6%
Gender-based violence	1,394	27.9%
Pressure to marry or get pregnant	1,230	24.6%
Reduced support from a trusted person related to sexual health	1,204	24.1%
Sexually transmitted infection/HIV	1,120	22.4%
Increased anxiety related to sexual health	1,035	20.7%
Prefer not to say	72	1.4%
Other	36	0.7%
None of the above	1,172	23.4%

Sample: 5,000

By climate event and country

Drought is again the clearest warning sign. Among girls and young women whose main climate event was drought, 84.5 per cent noticed more girls and young women in their community experiencing at least one negative sexual health situation, compared with 73.6 per cent among those whose main event was something else. Drought was especially linked to girls getting married before 18 (59.7 per cent), pregnancy health or childbirth-related issues (62.7 per cent), unintended pregnancy (54.3 per cent), and gender-based violence (47.6 per cent).

Zimbabwe shows the sharpest community-level risks. There, 89.4 per cent noticed more girls and young women experiencing at least one negative sexual health situation. Zimbabwe stands out for girls getting married before 18 (64.2 per cent), pregnancy health or childbirth-related issues (66.0 per cent), gender-based violence (60.0 per cent) and unintended pregnancy (55.5 per cent).

The same pattern is visible in what girls observe across their communities. Menstrual health is again the most widely noticed access issue (49.8 per cent), and sexual health information, education or counselling is the second most noticed (37.1 per cent), ahead of pregnancy care, contraception, as well as child marriage and GBV services. The fact that menstrual dignity and access to SRHR information are the two issues most widely disrupted across communities reinforces the case for treating comprehensive sexuality education as a frontline service.

7.7 Evidence of pathways: unpacking the impact of climate events on SRHR

The preceding sections documented which climate events girls and young women experienced, how those events affected their households and communities, and the SRHR services and situations they

^{xvii} Since respondents could select more than one response, percentages do not add up to 100 per cent.

Percentages are calculated out of the full sample of girls and young women surveyed (**n=5,000**). “Pregnancy health or childbirth-related issues” combines miscarriage, health problems during pregnancy, and complications during childbirth or with a baby. Overall, **75.0 per cent** said they had noticed at least one negative sexual and reproductive health experience becoming more common among girls and young women in their community, including “Other” (**n=3,751**).

reported. This section draws those threads together using the analytical framework introduced at the outset of the report. The three pathways (health system breakdown, household economic pressure and societal protection collapse) are the mechanisms through which climate events reach girls' sexual and reproductive health and rights. The survey and qualitative findings are now organised under each pathway to show not just *what* changed for girls, but *how* climate events produced those changes. This is where the data transitions from describing impact to explaining it by connecting the outcomes girls reported to the disruptions that drove them.

Pathway 1: Health system breakdown – disrupted SRHR services

Girls and young women are losing access to care when climate shocks disrupt health services around them. The survey findings echo what the literature shows: after a climate crisis, clinics can become harder to reach, health facilities can be damaged, and roads or bridges can become unsafe or unusable. This can make it harder to get contraception, pregnancy care, menstrual health support, counselling, protection services and trusted advice.

Healthcare disruption around the household is strongly linked to difficulty accessing services. Among respondents who reported reduced access to healthcare or damaged health facilities after a climate event (26.9 per cent), almost nine out of 10 said at least one SRH service became harder to access (**87.7 per cent**). This compares with 60.4 per cent among those who did not report these disruptions. **The most affected service was menstrual health.** Among girls and young women whose households experienced reduced access to healthcare or damaged health facilities, **64.9 per cent** reported difficulty accessing menstrual products or clean water to manage menstruation.

The same disruption is also linked to more negative sexual health experiences. More than half of the girls and young women who witnessed reduced access to healthcare or damaged health facilities also reported at least one negative sexual health experience (**55.6 per cent**), compared with **37.1 per cent** among those who did not report these disruptions. The most common negative sexual health experience is pregnancy health or childbirth-related issues. Among the same group, 30.2 per cent reported miscarriage, health problems during pregnancy, or complications during childbirth or with a baby.

Damaged roads and bridges are also cutting girls and young women off from care. Among those who reported damaged roads or bridges after a climate event (29.9 per cent), 77.2 per cent said at least one SRH service became harder to access, compared with 63.7 per cent among those who did not report this damage.

When climate shocks damage clinics, disrupt healthcare or cut off roads, girls and young women are left with fewer ways to get help. This can affect whether they can manage their periods safely, prevent pregnancy, get pregnancy care, seek help after violence, access counselling or make informed decisions about their health.

Pathway 2: Household economic pressure – economic stress

When climate shocks damage homes, income, crops or food access, the pressure reaches girls and young women directly. Economic stress is not only about what households lose. It also affects whether girls and young women can reach SRH services, get vital information and support, and stay safe. Damage to homes, livelihoods and food systems creates a set of practical and social barriers that directly constrain girls' and young women's access to SRH services. When households lose income, limited resources are often prioritised for immediate survival needs such as food, shelter or debt repayment, reducing the ability to pay for transport, service fees or medicines. Displacement or damage to homes can also increase distance from health facilities. At the same time, economic stress may increase girls' domestic workloads, leaving them with less time and freedom to seek care. In some cases, economic hardship can lead to negative coping strategies such as child marriage or exploitative sex, which further limit access to information, services and support while increasing SRH risks. Together, these factors explain how damage to homes and livelihoods translates into reduced access to SRH services, information and protection for girls and young women.

Household damage and livelihood loss are strongly linked to reduced access to SRHR services. Girls and young women who report damage to their home or property, loss of income, or loss of crops

or livestock after a climate event are much more likely to report difficulty accessing at least one SRHR service (77.1 vs 52.3 per cent). They are also more likely to report at least one negative sexual health experience (46.5 vs 34.9 per cent). When families lose income, property, crops or livestock, the effects can quickly spill over into girls' access to care, information and protection.

Food insecurity makes the barriers even sharper. Girls and young women who report reduced access to food after a climate event are much more likely to say at least one SRHR service became harder to access (83.3 vs 57.5 per cent). They are also more likely to report at least one negative sexual health experience (**49.9 vs 37.0 per cent**). This shows how food insecurity can become more than a household hardship: it can also affect girls' health, safety and choices.

When climate shocks push households into economic stress, girls and young women face more than material hardship. The pressure can affect whether they can get care, seek support, manage their health, and make safe and free decisions about their bodies.

Pathway 3: Societal protection collapse – disrupted education

When climate shocks disrupt girls' and young women's education, the impact does not stop at learning. School can connect girls and young women to trusted adults, peer support, health information, referral pathways and protection. When that connection is broken, girls can lose more than classroom time.

Girls and young women whose education is disrupted face greater barriers to SRHR services. Among those who told us their education was disrupted after a climate event, **84.7 per cent** said at least one SRH service became harder to access, versus **62.4 per cent** among those who do not report disrupted education. While this suggests that education disruption may reduce access to information, support networks and referral pathways typically linked to schooling, it is likely not the sole driver. Education disruption may also function as a proxy for broader structural vulnerabilities associated with climate events, including economic strain, displacement and service disruption. As such, the observed disparity likely reflects compounded disadvantage rather than a single causal pathway.

Disrupted education is also linked to more negative sexual health experiences. Just over half of girls and young women whose education is interrupted report at least one negative sexual health experience (50.7 vs 39.4 per cent). Disrupted education can also make it harder to manage menstruation safely and with dignity, access sexual health information and reach protection services. Girls and young women whose education is interrupted are nearly **three times as likely** to report barriers to child marriage prevention and response services (**39.3 vs 13.5 per cent**) and GBV prevention and response services (**36.7 vs 12.8 per cent**). They are also more than **twice as likely** to report barriers to sexual health education or counselling (**47.3 vs 23.3 per cent**).

The most visible personal impacts are linked to pregnancy, trusted support and early marriage. Girls and young women whose education is disrupted are more than **twice as likely** to report reduced support from a trusted person related to sexual health (**21.0 vs 9.9 per cent**) and unintended pregnancy (**18.0 vs 8.3 per cent**). They are also more likely to report pregnancy health or childbirth-related issues (29.5 vs 17.7 per cent) and marriage before the age of 18 (17.1 vs 9.1 per cent).

Keeping girls connected to education during and after climate shocks is also about protecting their health, safety and choices. When school is disrupted, girls and young women may lose access to information, protection, trusted support and the services they need to make decisions about their bodies and futures.

Across these pathways, one pattern stands out. Pregnancy health or childbirth-related issues are the most common negative sexual health experience, while menstrual products and clean water to manage menstruation are the most widely reported services that become harder to access after climate events.

7.8 Contraception: climate shocks are disrupting girls' access to contraceptive services

Girls and young women are seeing contraception become harder to access after climate shocks, especially for others in their communities. Overall, 16.7 per cent said they personally had more difficulty accessing contraception services after a climate-related event. At the community level, the figure was higher: 24.0 per cent said they had noticed more girls and young women in their community struggling to access contraception services. This gap between personal and community-level reporting may reflect underreporting of individual experiences and the presence of impacts that are unevenly distributed or less easily disclosed. The higher community-level figure suggests that disruptions such as reduced service availability, supply constraints, increased costs, mobility restrictions, or shifts in household and social dynamics may be affecting particular sub-groups of girls and young women more. It may also indicate that some barriers are more visible collectively than individually, with respondents more readily recognising challenges faced by others than reporting their own.

Contraception access is closely tied to girls' ability to prevent unintended pregnancy and make decisions about their own bodies. One in 10 girls and young women said they personally experienced an unintended pregnancy after the climate-related event, while **one in three** said they had noticed more unintended pregnancies among girls and young women in their community.

The reasons girls gave show that contraception becomes harder to reach, afford and discuss safely after climate shocks. Among those who noticed more difficulty accessing contraception in their community, the most commonly selected reason was lack of counselling or advice (62.0 per cent), followed by being unable to afford services or products (59.5 per cent), limited information about where to get services (51.5 per cent) and fewer health workers being available (50.5 per cent). Transport difficulties were also commonly cited (48.3 per cent).

By climate event and country

Drought stands out as the clearest warning sign for contraception access. Among participants whose main climate event was drought, 34.7 per cent said they had noticed more girls and young women in their community struggling to access contraception services, compared with 22.4 per cent among those whose main event was something else. Among drought-affected girls and young women who noticed contraception had become harder to access, the most selected reasons were being unable to afford services or products (71.1 per cent), lack of counselling or advice (64.5 per cent), age restrictions or needing permission (61.4 per cent) and limited information about where to get services (58.8 per cent).

Zimbabwe and Kenya show the highest community-level contraception barriers. In Kenya, where drought is the most commonly reported climate event, 35.9 per cent of respondents said they had noticed more girls and young women struggling to access contraception. In Zimbabwe, where extreme heat is the most commonly reported climate event, 33.6 per cent reported the same.

In Zimbabwe, cost is the clearest barrier. Among girls and young women in Zimbabwe who noticed contraception had become harder to access in their community, the most selected reason was being unable to afford services or products (72.3 per cent), followed by lack of counselling or advice (58.6 per cent), age restrictions or needing permission (54.8 per cent) and limited information about where to get services (54.5 per cent).

In Kenya, the barriers are especially wide-ranging. Among girls and young women in Kenya who noticed contraception had become harder to access in their community, the most selected reasons were lack of counselling or advice (78.6 per cent), being unable to afford services or products (77.7 per cent), limited information about where to get services (77.7 per cent), stigma or judgment (71.0 per cent) and transport difficulties (70.2 per cent).

The message is clear: climate shocks can make contraception harder to access in several ways at once. Girls may face higher costs, less information, fewer health workers, transport barriers, stigma, and limited privacy (see Table 14). Together, these barriers can reduce girls' ability to prevent pregnancy and make informed decisions about their health.

Table 14: Reasons for increased difficulty accessing contraception^{xviii}

Why do you think more girls and young women in your community struggled to access contraception as a result of the [climate-related event]?	Frequency	Percentage
Lack of counselling or advice on services	743	73.3%
Unable to afford services or products	713	59.5%
Limited information about where to get services	617	51.5%
Fewer health workers were available	605	50.5%
Transport to services was difficult or unavailable	579	48.3%
Lack of private or confidential spaces	572	47.7%
Age restrictions or needing permission	569	47.5%
Stigma or judgment intensified	554	46.2%
Preferred contraceptive method was unavailable	543	45.3%
Displacement or limited access to regular services	446	37.2%
Health facilities were closed or damaged	423	35.3%
Other	12	1.0%
Don't know	7	0.6%

Sample: 1,199

7.8.1 Qualitative Insights: SRHR services and contraception access

Across all five countries, adolescent girls and young women described a health system that was already under considerable strain before any climate event occurred. Senegal was a partial exception; participants there described baseline access as comparatively straightforward, which makes the disruption described later in this section more clearly attributable to the climate events themselves than to pre-existing gaps in provision. Access to SRH services varied considerably by geography and age, and sometimes marital status, but a consistent picture emerged: in rural and remote areas, clinics are few and far away, contraceptive stocks are frequently depleted and, for many girls, the practical and social barriers to accessing services are substantial even in periods without climate-related disruption.

In Bangladesh, several participants described visits from community health workers and contraceptives available at pharmacies, local markets and government hospitals. However, this relative accessibility coexisted with deep structural barriers. For the girls we spoke to, reaching some clinics requires long, costly journeys, and this cost can be a deterrent when families cannot afford contraception.

In Senegal, participants described a comparatively dense network of service provision. Health centres, hospitals, clinics and pharmacies were all named as accessible, and most participants said contraception was easy to obtain, with Huguette (23) and Rose (20) reporting that all methods were available and Louise (23) describing services as “cheap”. What distinguished Senegal was the role of community-embedded personnel. The majority of participants mentioned the Badienou Gokh (female community health agents) who visit households and give talks on health and menstruation, with some also describing mobile midwives who conduct home visits:

“Most often, it is the Badienou Gokh [community godmother] who leads awareness. She informs us about the importance of prenatal visits and about my child's vaccination. Due

^{xviii} Percentages are calculated among respondents who reported that more girls and young women in their community had increased difficulty accessing contraception services after the main climate-related event (n=1,199).

to her support on this, I am able to better understand certain aspects of maternal and child health, even if the conditions in which we live remain very complicated because of the floods.” Louise, 23, Senegal

Ease of access was not universal across Senegal, however. Sofia (16) described services as unavailable in parts of the country because of the distances involved, and Angelle (15) pointed to limited knowledge and religious and social beliefs as continuing barriers. Even so, Senegal’s comparatively strong baseline access points to the value of community-based service provision: the Badienou Gokh and mobile midwives kept information and outreach flowing through trusted local figures – a model with clear relevance for sustaining SRHR delivery elsewhere when facilities are disrupted.

Stigma compounded access barriers across all contexts. In Bangladesh, social and normative barriers sat alongside the practical ones and were among the most powerful deterrents. Religious belief and social stigma led some individuals and communities to regard contraception as sinful or religiously inappropriate: Sayma (22) described a mother-in-law shouting at her for using it, part of a wider pattern in which elders framed contraceptive methods as unnecessary because having children is ‘God’s will’. In Zimbabwe, girls described being reprimanded for seeking contraception, alongside the cultural taboo of being perceived as sexually active. As Rutendo (16) explained: *“In our culture, talking about preventing pregnancy is a taboo. People call you a prostitute.”*

Maya (17, Bangladesh) described a clear knowledge divide, with girls attending school generally aware of these matters, while Moni (15, Bangladesh) noted that out-of-school girls have very limited knowledge of sexual and reproductive health and remain unaware of the services that do exist.

Halima (24, Kenya) reported a lack of confidentiality from local health workers. Embarrassment compounded the problem, with Maya (17, Bangladesh) speaking of girls who were unable to discuss irregular menstruation with their own mothers. Fatou (15, Senegal) described the shame attached to asking adults for information at all. In Peru, embarrassment and fear of judgment by health workers were the most common reasons girls gave for not visiting health centres:

“Many girls don’t feel safe. Because they are minors, because they are humiliated or criticised by someone older, they are ashamed to ask for help.” Camila, 15, Peru

“When I got pregnant with my husband, I didn’t go to any check-ups because I was 16 years old, and I was ashamed to be told: ‘why didn’t you use protection?’ So, I did not attend ... It is the fear of rejection, of what people will say. And there are many people who may feel the same way I felt.” Maria, 24, Peru

Partner control emerged as an additional layer in Zimbabwe and Kenya, where some women described husbands actively preventing them from collecting contraceptives. For unmarried girls across all settings, access to contraception carried social risk as well as financial cost.

Halima (24, Kenya) described public facilities as inadequately resourced, noting that *“the private clinics are fully functional, but serve only those with the money”*. In Senegal, where public provision was thin, cost created a sharp divide in access: Astu and Huguette (19 and 23) described women without the means to pay for contraception at all.

Across most countries, it is clear that when floods, droughts and extreme weather strike, they do not create an access crisis where none existed, but rather take a system already under pressure and push it past its breaking point.

Pathway 1: Health system breakdown

Climate events disrupt the infrastructure, supply chains, staffing and information networks through which girls and young women access SRH services. Across all five countries, there was a consistent pattern: facilities close or operate at severely reduced capacity, contraceptive and medical supplies run out, transport routes become impassable, and the community outreach many girls rely on as their main source of information stops. These disruptions compound the pre-existing barriers described above, with effects that persist for weeks or months after the climate event. Senegal departs from this pattern in two respects: facilities generally remained open, and outreach delivered through community personnel largely continued.

Facility closures and staff unavailability

The most immediate impact described by participants was the closure of health facilities and the departure of health workers. In Bangladesh, where flooding was frequent and severe, this pattern was mentioned by nearly all participants. Floodwaters entering clinic premises forced closures that lasted for months:

“The clinics were closed because floodwater had entered the premises, and roads were completely blocked. Health workers left the area during the flood and stopped providing services.” Moni, 15, Bangladesh

Rupa (15, Bangladesh) described how female outreach workers (the primary point of contact for SRH services in her community) were unable to visit for two months. Even when facilities nominally remained open, the health workers who staffed them could not reach them:

“The medical centre was closed because some of the health specialists are not from [name of her town] itself but from other places. They moved in canoes, and that put their lives at risk.” Mia, 16, Peru

This pattern was consistent across Kenya, Peru and Zimbabwe. In Kenya, participants described health workers being transferred or displaced during flood events, leaving facilities understaffed. In Peru, where health centre staff often travel from neighbouring towns, flooding rendered the routes between communities and facilities impassable.

Senegal was the exception: girls and young women there described clinics continuing to function, with the barrier lying in the ground between their home and the facility rather than in the facility itself. Khady and Aminata (15 and 19) explained that pharmacies became unreachable because of flooded walkways, mud and overflowing sanitation infrastructure. Only Astu (19) described health staff being displaced, and Huguette (23) said access had been difficult ever since the flood.

The result was not just disrupted services but the complete absence of reproductive healthcare during critical periods. The consequences for pregnant girls and women were severe. Some women delivered without skilled assistance, crossed flooded rivers in inner tubes to reach a clinic or simply gave birth at home with no support at all:

“There were also many pregnant teenagers who could not have check-ups and I even remember that in those years the creek had risen ... they had to pass in inner tubes and there was a girl who was about to give birth ... she had to cross the bridge, and the river overflowed, and there was no other way.” Anahi, 15-19, focus group, Peru

Transport barriers

Across all countries, damaged or impassable roads and flooded waterways emerged as key ways in which climate events cut girls off from SRH services. In Bangladesh, participants described roads submerged under floodwater, boat journey prices that would increase fiftyfold during floods, and pregnant women unable to reach facilities during labour. Sayma (22, Bangladesh) explained: *“There were no roads, and if labour pain started, there was no way to access medical help.”* In Peru, Mia (16) described how communities without bridges were entirely isolated: *“During the rainy season, when we did not have the bridge, there were pregnant women who crossed the river, not because they wanted to, but because they had to go for their check-ups.”* Pregnant women on motorcycles navigated deteriorating dirt roads, and those unable to do so simply did not receive care:

“It can be difficult for pregnant women to take their check-ups every month due to the deterioration of the roads ... and it can cause the baby to suffer a malformation.” Susana, 18, Peru

In Kenya, flooded roads prevented girls from reaching facilities and suppliers from delivering stock to them. In Zimbabwe, a flood-damaged transformer at a local hospital led staff to redirect patients to a hospital near Harare. In Senegal, transport was the single most widely reported barrier. Girls and young women described alleys blocked by sewage and paths submerged throughout the rainy season. Marie (24, Senegal) recalled that when she was pregnant she *“had a hard time getting to the clinic because the paths were completely filled with water”*, and Louise (23, Senegal) described being forced to walk

through stagnant water to reach the health centre. Cost compounded distance, as Fatou (15, Senegal) put it: *“the cost of transportation is high, especially in a context where families have already lost everything.”* In Kenya, Ayyantuu (15) described having no means of transport at all. These transport failures mean that for girls in the most remote areas, even the facilities that remain open are functionally unreachable.

Supply shortages

Where facilities remained accessible, participants described arriving to find them empty of supplies. In Bangladesh, contraceptive shortages during floods were widespread: pills, injections and implants became unavailable as markets and pharmacies closed and supply chains collapsed. Sayma (22, Bangladesh) described women becoming pregnant as a direct result of the lack of contraceptives. The shortage of supplies at already-stretched facilities was compounded by the inability to resupply. As Wanjiku (20, Kenya) explained: *“Contraception supplies run out of stock and this being a remote area, it is difficult to get to another centre where such services are offered.”* In Zimbabwe, contraceptive pills were being sold by staff to buy food due to the economic pressures caused by drought. The picture in Senegal was mixed: Fatou (15) described contraceptive shortages, while Marie (24) experienced none.

Menstrual health products were similarly unavailable. Across Bangladesh, Kenya, Zimbabwe and Peru, participants described sanitary pads as inaccessible to communities during droughts and floods. Moni (15, Bangladesh) said sanitary pads were also unavailable at shelter centres. This shortage was driven by disrupted supply chains but compounded, as Pathway 2 shows, by the inability of families to prioritise menstrual products even when available.

Loss of information and outreach

For many girls and young women, community outreach workers, school talks and peer networks were more important sources of SRHR information than formal health facilities. Climate events dismantled these channels systematically. In Bangladesh, communication systems broke down entirely during floods: electricity and mobile networks failed, making it impossible to reach health workers or access information remotely. In Kenya, outreach programmes were reduced or suspended, schools that served as information points closed, and reliable information became harder to access. In Peru, health workers who would normally give talks at schools and in communities were unable to reach them during flooding.

In Senegal, participants who received SRHR information through community-embedded personnel largely retained access: Angelle (15) described continued support from the Badienou Gokh, and Marie and Rose (24 and 20) said information remained easy to obtain through mobile midwives and health facilities. Where the channel was digital rather than personal, however, access was disrupted, with Huguette (23, Senegal) describing the loss of internet coverage. Taken together, this suggests that outreach delivered by people already embedded in the community is markedly more resilient to climate disruption than outreach that depends on functioning facilities or digital networks.

Physical immobility could still sever girls from formal sources even where those sources continued to operate:

“When I was pregnant, I couldn’t move around because of the water. I was forced to go to [name]’s house to gather information about my pregnancy. My house was flooded, making it very difficult for me to access the clinic.” Kine, 22, focus group, Senegal

Fatou (15, Senegal) described contraceptive information being deprioritised during floods and arriving too late. As usual channels became harder to reach, some girls and young women in Peru and Senegal turned to digital sources (websites, social media, and AI chatbots such as ChatGTP and Gemini), indicating a shift in how SRHR information is accessed during disruptions:

“There is a strong relationship [between floods and unintended pregnancies] because due to the flooding from the rains, it is difficult for us as women to look for information, and we decide to practically lock ourselves up with what we have and look for quick solutions, and we cannot go to the health centre to seek help from a professional or someone who can help us.” Susana, 18, Peru

Pathway 2: Household economic pressure

Across all countries, participants described how the economic shock of floods and drought left households unable to pay for transport, purchase contraceptives from private suppliers or access any service with a cost attached.

In Kenya, drought-induced livestock loss translated directly into an inability to buy contraceptives. Boke and Halima (20 and 24, Kenya) reported being unable to afford contraception from private clinics, with Halima linking this explicitly to livelihoods lost to drought. In Zimbabwe, the same dynamic played out when contraceptives required travel to town during droughts as those journeys became unaffordable. Participants in Zimbabwe also described being tasked with fetching water over greater distances or caring for siblings during droughts so their parents could earn money, which meant they could not attend clinics or outreach services. In Bangladesh, they reported being unable to save during floods, which meant services became out of reach. In Senegal, Madina (16) described simply lacking the resources to access services, and Fatou (15) pointed to transport costs falling on families who had already lost everything. Marie (24, Senegal) described a mitigating factor: a health insurance card that reduced the cost of care when she fell ill.

Menstrual health was a particular casualty of household economic pressure. Even where menstrual products reached communities, families prioritised more pressing needs. For example, in Kenya and Zimbabwe, participants said families prioritised food and water over sanitary products during crises, which left girls managing menstruation without basic materials.

Pathway 3: Societal protection collapse

Displacement emerged as a key driver of reduced access to SRH services, primarily through the compounding effects of physical distance and informational disruption. In Kenya, participants described how flood-induced displacement increased the physical distance between families and health facilities, creating a direct barrier to contraceptive access. In Senegal, displacement was similarly reported to disrupt the flow of health-related information, meaning that those affected did not consistently receive information relevant to their needs.

Beyond distance and information gaps, displacement also disrupted the continuity of care. Huguette (23, Senegal) described being unable to access contraceptive methods after relocating to a new neighbourhood, having lost the physical record documenting her prior use of a method. Unfamiliar with the new service location and reluctant to explain her situation to unfamiliar providers, she did not seek to re-establish care. This account illustrates that the barriers created by displacement are not solely logistical: the loss of continuity in care, combined with the social discomfort of re-disclosing personal health information to new providers, can discourage service-seeking even where services remain geographically accessible.

Taken together, these accounts suggest that displacement affects SRH access through at least three interlocking mechanisms: increased physical distance to services, disruption of information channels, and loss of continuity of care compounded by stigma associated with re-engagement.

Compounded vulnerabilities across pathways

Girls and young women identified which groups they felt were most at risk in relation to the two pathways above. Rural and remote populations were consistently identified across all five countries as disproportionately affected: the combination of distance, poor roads and limited local supply means that climate-related access disruption hits hardest where coverage was already lowest.

“I am from the highlands, and yes, we suffer more there than here. Perhaps there are no health centres nearby, we have to walk for an hour, an hour and a half to get there ... and when it rains we cannot go.” Maria, 24, Peru

Girls with disabilities face compounding barriers across all three pathways, a pattern documented in detail in the GBV section that follows. Out-of-school girls, identified across Kenya, Senegal and Peru as lacking both the information and support that schools provide, face additional exposure. Sofia (16, Senegal) described them as *“more vulnerable due to their limited knowledge of reproductive health”*. In

Kenya, pastoralist girls and young women were specifically identified as disproportionately affected due to the mobility patterns that drought imposes on their communities.

The evidence reflects a consistent underlying pattern: the girls with the least access before climate events bear the greatest burden when those events strike. However, several participants, particularly in Senegal, resisted the framing altogether and said that all girls were affected.

7.9 Gender-based violence: climate shocks are making girls less safe

Girls and young women are telling us that climate shocks are increasing GBV risks while also making support services harder to reach. Climate shocks can make girls less safe by increasing pressure inside households and communities, pushing girls into unsafe relationships or survival strategies, and weakening the services and support systems meant to protect them. Overall, almost one in five (18.5 per cent) girls and young women said they personally had more difficulty accessing GBV prevention and response services after a climate-related event.

Girls and young women are also seeing gender-based violence rise around them. More than one in four participants said they had noticed more girls and young women in their community experiencing gender-based violence as a result of a climate-related event (27.9%).

GBV services are becoming harder to access during climate shocks. Almost one in four participants said they had noticed more girls and young women in their community struggling to access GBV prevention and response services after a climate-related event (23.7 per cent). This is a serious warning sign: when violence increases, the services girls need for safety, reporting, care and protection may also become harder to reach.

The most selected reason for increased gender-based violence is economic pressure. Among girls and young women who noticed more gender-based violence in their community, the most selected reason was the need for money or resources leading to harmful relationships (72.8 per cent). This was followed by transactional sex (66.0 per cent)^{xix} and reduced access to GBV services (61.3 per cent), as shown in Table 15.

By climate event and country

Drought stands out as the clearest warning sign for girls' safety. Among participants whose main climate event was drought, 47.6 per cent said they had noticed more girls and young women in their community experiencing gender-based violence, compared with 24.9 per cent among those whose main event was something else. They were also more likely to say that GBV prevention and response services had become harder to access, both personally (31.5 per cent) and for girls and young women in their community (39.4 per cent).

In drought-affected settings, the reasons for increased gender-based violence point strongly to scarcity and survival pressures. Among girls and young women affected by drought who noticed more gender-based violence in their community, 84.0 per cent linked this to the need for money or resources leading to harmful relationships, 80.2 per cent to sexual exploitation, and 67.1 per cent to both increased stress and tensions and less access to GBV services.

Zimbabwe shows the sharpest GBV-related risks. In Zimbabwe, 60.0 per cent of participants said they had noticed more girls and young women in their community experiencing gender-based violence after a climate-related event, compared with 19.9 per cent across the other study countries. Zimbabwe also showed high barriers to GBV services: 33.9 per cent said they personally had more difficulty accessing GBV prevention and response services, and 40.3 per cent said more girls and young women in their community were struggling to access these services.

In Zimbabwe, economic pressure appears central to the rise in gender-based violence. Among girls and young women in Zimbabwe who noticed more gender-based violence in their community, 85.2

^{xix} See footnote xxii.

per cent linked this to the need for money or resources leading to harmful relationships, 79.2 per cent to engaging in transactional sex to meet needs,^{xx} and 61.8 per cent to less access to GBV services.

Kenya also shows elevated GBV concerns, with strong links to stress and unsafe coping. There, 34.0 per cent of participants said they had noticed more girls and young women in their community experiencing gender-based violence, compared with 26.4 per cent elsewhere. Among those who noticed more gender-based violence in Kenya, the most selected reasons were more sexual exploitation (85.9 per cent), the need for money or resources leading to harmful relationships (85.3 per cent), increased stress and tensions (83.8 per cent), and less access to GBV services (77.1 per cent).

Table 15: Reasons for increased gender-based violence^{xxi}

Why do you think more girls and young women in your community experienced gender-based violence as a result of the [climate-related event]?	Frequency	Percentage
Need for money or resources leading to harmful relationships	1,015	72.8%
Engaging in transactional sex to meet needs ^{xxii}	920	66.0%
Less access to GBV services	854	61.3%
Increased stress and tensions in households or communities	852	61.1%
Less police or community protection	689	49.4%
Loss of safe spaces or school closures	680	48.8%
Overcrowded or unsafe living conditions	561	40.2%
Don't know	17	1.2%
Other	15	1.1%

Sample: 1,394

7.9.1 Qualitative insights: safety, violence and GBV

Safety before climate events

Across all five countries, girls and young women described safety as an everyday concern – one that climate change compounds rather than creates from scratch. In Kenya, Bangladesh, Zimbabwe and Peru, most participants reported that girls do not feel safe in their communities. Threats included sexual harassment, intimate partner violence and exploitation by older men and strangers. Only in some parts of rural Piura in Peru did participants describe their communities as comparatively safe because of small population sizes and close-knit social networks. In Senegal, accounts were more evenly divided. Around half of participants described girls as inadequately protected, citing weak security, limited street lighting and overcrowded housing, while the rest said they had not witnessed such situations in their communities, in some cases attributing this to religious beliefs.

Certain groups face disproportionate exposure even before any climate shocks: girls with disabilities, girls who drop out of school and unmarried girls were consistently identified as most at risk across country contexts. Participants in Senegal converged on the same group, identifying out-of-school girls as the most exposed on the grounds that they lack access to information, alongside girls from families

^{xx} See footnote xxii.

^{xxi} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated among girls and young women who said more girls and young women in their community had experienced gender-based violence as a result of the main climate-related event (**n=1,394**).

^{xxii} Given the sample spans ages 15-24, this report uses the term “sexual exploitation” rather than “transactional sex”: a child cannot meaningfully consent to exchanging sex for money, goods or benefits, so any such involvement of a minor is exploitation and abuse, in line with international child protection standards. For transparency, survey response options are reproduced as they were put to respondents in the questionnaire.

without a stable income and those whose movement is unsupervised. In Kenya, girls from ethnic minorities, orphaned girls and girls from the poorest households were identified as at risk, alongside girls who had not been to school and did not know their rights. In Zimbabwe, those left at home while adult family members sought casual labour were also identified as being at a higher risk, as Rutendo (16) shares: *“Girls are not safe. We are left alone at home when adults move away to seek casual labour and we are exposed.”* In Bangladesh, participants described ‘eve-teasing’, a term referring to sexual harassment in public, with girls reporting that it is unsafe to travel to school, commute by bus or walk alone at almost any time of day.

This baseline insecurity matters for understanding what follows. When climate events strike, they do not introduce gender-based violence into communities where it was absent, but instead intensify and extend existing risks, remove the limited protections that girls rely on and create new situations of exposure.

Pathway 3: Societal protection collapse

Climate events disrupt the social structures, community networks, and institutions that provide girls with their most basic layer of protection. Across all study countries, participants described how disasters fracture community safeguarding, displacing families, closing schools, overwhelming justice systems, and creating conditions in which violence becomes harder to escape and easier to perpetrate. The evidence from this research maps clearly onto three interconnected mechanisms: displacement and shelter risks, exposure driven by resource scarcity, and the collapse of protective mobility.

Displacement and emergency shelters

The loss of home and the concentration of displaced people in temporary shelters emerged as one of the most consistently reported risks across Bangladesh and Zimbabwe, with some examples in Kenya and Senegal as well. When families are forced to share cramped, mixed-sex spaces with strangers, girls face heightened exposure to harassment, unwanted touching and sexual violence.

In Bangladesh, where flooding regularly displaced large numbers of people, participants described shelter environments in stark terms. The lack of gender-segregated spaces was a core concern. Overcrowded schools converted into emergency shelters provided one or two toilets for entire communities. Nights in emergency shelters were similarly described as particularly dangerous, with darkness, cramped conditions and the presence of strangers creating acute risk for girls moving to toilet facilities alone. Families responded by keeping girls under constant supervision, with older family members staying awake through the night to guard against harm. Several participants described specific incidents of harassment and assault during the 2022 floods:

“During the 2022 flood, when married and unmarried women took shelter at [name of school], many of them were harassed and became victims of eve-teasing.” Diya, 17, focus group, Bangladesh

“During the floods in 2022 ... at the shelter, the men stayed awake all night to watch over the girls because it was not safe. There were too many people, no lights, and we were afraid something would happen while everyone slept.” Tahira, 23, Bangladesh

In Zimbabwe, similar dynamics played out when homes were damaged by flooding. Melo (24) noted that overcrowded conditions where families were forced to share rooms meant that men, women and girls were all exposed to abuse. In Kenya, displacement took the form of drought migration, with households moving to Ethiopia or elsewhere within Kenya, which increased risks during the journey.

In Senegal, displacement rarely meant a formal emergency shelter. Households moved in with relatives or stayed on in flooded homes, and participants described living conditions deteriorating as displaced populations were absorbed into houses that were already crowded. The risk came from the loss of private space rather than from the shelter environment itself:

“Flooding increases the risk because of the loss of private space, the loss of protection, displacement, and the breakdown of stress-related surveillance. Everyone is in survival mode.” Huquette, 23, Senegal

Participants added that displacement also severs access to health services and information, compounding the exposure it creates.

Resource scarcity and survival mobility

Across all five countries, climate events that reduce water availability or destroy food sources force girls to travel farther from home to collect water, gather firewood and access markets. This exposes them to risks that would not exist if resources were closer. This pattern appears in contexts of both drought and flood: drought empties local water sources while flooding destroys infrastructure and contaminates supplies.

In Kenya, participants described how drought pushes girls to accompany men and livestock on long migrations in search of water and pasture, significantly extending their exposure outside the community's protective networks. They said that girls and boys travelling together over long distances exposed girls and young women to risks, and described abuse by the men who were supposed to be protecting them. Alongside these seasonal exposures, girls and young women also described daily ones when fetching water and firewood, where abuse was common along the route.

Crucially, the risk cuts both ways: girls left at home while families migrate with livestock face equal, if not greater, danger. Wanjiku (20, Kenya) described how girls and young women who are left at home while their families travel long distances are sometimes raped by men who take advantage of their vulnerability. In Zimbabwe, water scarcity forces girls to travel to distant shared water points, where harassment and coercion are common. Chenai (21, Zimbabwe) spoke of the risks girls face, including her own experience: *"Boys block their way, forcing them into relationships. If I say no, sometimes I get beaten up"*. In Peru, the act of fetching water (made necessary by climate-related scarcity) exposes girls to harassment as they are forced to bathe outdoors, where men try to photograph them, make sexually explicit remarks and block their paths:

"They come from the mango fields, and whistle. If a girl doesn't notice, they take pictures of them. They also say words that a girl would not like to hear — they say 'hey, sexy', 'you look hot'." Dina, 19, Peru

In Senegal and Kenya, participants described similar risks during water collection, with those travelling to fetch water sometimes confronted with violence. Senegalese participants also identified a site of risk not reported elsewhere in this study: the aid distribution point itself.

"During water shortages or during food distributions (rice, mosquito nets), there are often large crowds. It is in these moments that unwanted sexual contact can occur." Fatou, 15, Senegal

Distribution was named independently by other participants as one of the moments of greatest exposure, making this a consistent finding in Senegal rather than an isolated account. Some participants there directly linked household economic loss to the coercion of girls, describing how some girls whose parents had lost businesses or fishing equipment may be pressured into sexual exploitation for support.

The link between resource scarcity and violence is not only about physical exposure. Several participants in Peru identified the stress of scarcity, such as rising food prices, loss of income and the inability to provide, as a key driver of household violence. When men lose work due to floods or drought, domestic tensions escalate:

"During the rains, food is scarce, food prices rise ... men, who sometimes get stressed, feel they carry a heavy burden on their shoulders ... He went out to drink and then came in the night and broke his glass door, and his wife was pregnant. He was going to hit her. Fortunately, the neighbours managed to enter the house and rescue her." Mia, 16, Peru

Participants in Kenya described the same mechanism, with the loss of livelihood to drought leaving no food in the household, couples quarrelling and fights breaking out. In Senegal, the same dynamic occurred when men who could no longer fish during the flood season lost their income and struggled to meet household expenses. Where household income contracts, control over what remains can itself

become the instrument of violence. Marie (24) described a marriage her in-laws had opposed from the outset. Pregnant and often ill, she carried on with the household work while her father-in-law refused to let her husband give her money for prescribed medicine, on the grounds that pregnancy is not an illness. She could not afford the transport to return to her mother's house. Her husband eventually hit her, then expelled her while she was seven months pregnant and stopped the daily allowance:

"I had difficulty doing my prenatal visits and eating a balanced diet during my pregnancy. Because of all this, I became very vulnerable, especially given my medical condition."

Marie, 24, Senegal

Dangerous situations during climate events

Beyond displacement and resource scarcity, participants across all countries described specific situational risk factors that emerge or intensify during climate events. Power outages were identified in Peru as creating a particular danger: when electricity fails during floods, restaurants, streets and routes home become dark and unsafe for girls who work evening shifts or travel at night. As Maria (24, Peru) put it: *"When it rains, there are sometimes power outages ... at this time, because of the need to have money due to the floods and the lack of jobs, especially the girls are forced to work. And there are malicious people who do not let them work peacefully."*

In Senegal, participants described nightfall as the point of greatest exposure, with insufficient street lighting cited alongside the physical fabric of housing, where risk rises during floods and after dark. Some had stopped going out at night during floods altogether, and others described setting out before dawn to reach transport, itself a hazard. Participants summarised the moments of greatest exposure as when the neighbourhood leaves for work, at night, when aid is being distributed, and when everyone is asleep.

Heat produced a safety issue of its own, with housing that became uninhabitable in hot weather pushing families to sleep outdoors at night:

"During hot periods, we suffer enormously. The houses are covered with zinc canvases that strongly attract the sun's heat. Inside, it's very hot, it's stifling. Because of this, I often have to sleep outside with my children, even though I know it's not safe. But I have no other choice." Louise, 23, Senegal

Confinement with partners during floods was also identified as a risk factor. In Peru, several participants described how floods that restrict movement trap women and girls in the home with partners experiencing economic stress, a dynamic that several linked directly to increased intimate partner violence:

"We are in floods and [if the] woman is in the kitchen and says 'I don't have this', then the man who is already stressed out can say anything or do anything to her, and in that moment when it is raining no one can see or hear anything." Aitana, 21, Peru

Across countries, the evidence points to a consistent pattern: the situations of greatest risk during climate events are those where girls are isolated, in the dark or confined with those who may harm them, while in Senegal, risk also arises when they are crowded together in competition for scarce aid.

Groups facing compounded risks

While all girls face heightened risks during climate events, those with disabilities face compounding barriers. Participants across Kenya, Bangladesh, Peru and Zimbabwe identified girls with disabilities as among the most exposed during climate emergencies, both to violence and to abandonment. When families leave home to seek casual labour or access emergency assistance, girls with disabilities are often left behind:

"They are left alone at home when adults go for casual labour or petty trading." Chenai, 21, Zimbabwe

In Bangladesh, participants noted that girls with disabilities are unable to move independently to emergency shelters, and that even when they reach them, inaccessible infrastructure means they *"often*

just remain seated, unable to move” (Tahira, 23, Bangladesh). Consistent with the broader literature, evidence from this study suggests that disability significantly amplifies exposure across all three disruption pathways, and that girls with disabilities are frequently absent from disaster planning.

Access to support: Breakdown of services

The social protection collapse described above is matched by a parallel breakdown in formal and informal support services. Across the study countries, participants described reporting pathways as fragile before climate events and largely inaccessible during and after these events. Senegal is the exception to the first pattern but not the second, as set out below.

In Bangladesh and Zimbabwe, the primary route for reporting violence is not through the police but through community leaders. Participants there named chairmen, union members and village elders as key reporting channels. Their involvement precedes and often replaces formal justice systems. Girls and young women shared concerns involving these informal systems, such as corruption, victim-blaming, social stigma that deters reporting, and encouragement of marriages between victims and perpetrators as a ‘resolution’. During climate events, the combination of flooded roads, disrupted communications and community leaders’ preoccupation with the disaster itself makes even these informal routes harder to access.

In Kenya, participants pointed to medical centres, law enforcement and traditional leaders as reporting options. However, they described weak or inconsistent enforcement through these channels, with no recognised community-level mechanism specifically focused on protecting girls. A children’s office and a gender and social services office were also named, though one participant said they were not effective in fulfilling their mandates. Reporting was usually described as running through parents to community elders. Girls and young women also said stronger enforcement of existing laws was needed. Compounding these challenges, girls themselves often lacked knowledge of reporting procedures, meaning that where services did exist, many would not know how to access them.

In Peru, participants described formal GBV services, including police stations, the DEMUNA (Municipal Ombudsman’s Office for Children and Adolescents) and women’s emergency centres, but girls and young women said these services were geographically distant under normal conditions and functionally inaccessible during floods. Several participants noted that police stations operate reduced hours during climate events and that roads become impassable. The Ronda, Peru’s community justice system, was more consistently available because it operates locally, but its reach and authority vary significantly. One participant highlighted the broader problem:

“People from far away do not have police stations in their community, making it difficult to seek help for family violence or sexual violence during floods.” Mia (16, Peru)

Senegal presented the most developed referral landscape in the study, and the only account of a formal service producing a result. Participants named a layered set of options without hesitation: the Badienou Gokh and the neighbourhood delegate or district chief at the community level; health posts, hospitals and midwives; women’s associations; the police; and the AEMO (*Action Éducative en Milieu Ouvert*), a state-run child protection and social work service. Unlike Kenya, knowing where to go was not the binding constraint.

The constraints lay elsewhere. Girls and young women reported that help existed but was hard to reach, citing the cost of transport as a direct barrier to leaving a violent household. They said such situations were often settled amicably within the family, particularly in cases involving marriages between close relatives – the same informal ‘resolution’ described in Bangladesh in place of formal reporting. Participants also identified a barrier specific to the distribution point: girls who are alone are reluctant to report what happens there *“for fear of losing their place in the queue”* (Fatou, 15, Senegal), with some followed or harassed by people from outside the neighbourhood afterwards.

Stigma compounds these access barriers in every context. In Bangladesh, fear of family dishonour, social shame, and the belief that a girl who reports violence will be unable to marry were identified as the primary deterrents to help-seeking, rather than the absence of services.

“Families often go to the local [council] member or chairman. However, going there is also difficult, because it involves facing many people and enduring various comments, and in most cases the girl is blamed more. Eventually, the girl is married to that same boy, and she has to go and live in that household, often having to adjust and accept the situation.” Rupa, 15, Bangladesh

In Peru, normalisation of intimate partner violence plays a similar role in deterring help-seeking, with girls and young women describing violence as something to be tolerated rather than reported:

“Many times, people don’t go because it is normalised. They say ‘he is my partner’ or ‘he is my husband and that’s why I allow it; why generate another problem, I just let it go’ ... That is why people do not seek information or help to get out of it.” Susana, 18, Peru

The evidence points to a system that is insufficiently protective before climate events and largely absent as these events unfold. The girls and women in this study are navigating not just individual acts of violence but the structural failure of the institutions that are meant to protect them – a failure that climate events accelerate and deepen. There are exceptions, however. In Kenya, a Gender and Child Protection Technical Working Group operates during climate events, providing sensitisation and awareness-raising about rights and norms.

Where institutions have not filled this gap, girls and women often step in themselves. In Peru, some communities have proposed concrete actions such as setting up women’s organisations, parent training and coordinated policing of high-risk routes. Participants also described women collectively raising their voices about violence and sharing information about climate risks through community networks:

“Because of the flooding issue, many women have now raised their voices ... They now give information about violence they have suffered and encourage other women to do the same.” Mia, 16, Peru

7.10 Child marriage and unions: climate shocks are increasing pressure to marry or get pregnant

Girls and young women are telling us that climate shocks are increasing pressure around marriage and pregnancy. Overall, 11.0 per cent said they got married before 18 as a result of a climate-related event. A further 9.1 per cent said they felt pressure to marry or get pregnant because of a climate-related event.

Support services are also becoming harder to reach. Nearly one in five girls and young women said they personally had more difficulty accessing child marriage prevention and response services after climate shocks (19.7 per cent). This matters because when the pressure to marry increases, girls need protection, advice, referral pathways and safe support more urgently.

Girls and young women are seeing even wider pressure related to forced marriage in their communities. More than one in three said they had noticed more girls and young women in their community getting married before 18 (36.3 per cent). Around one in four said they had noticed more girls and young women in their community experiencing pressure to marry or get pregnant (24.6 per cent), while a similar share said more girls and young women in their community were struggling to access child marriage prevention and response services (24.7 per cent).

The reasons girls gave point to financial pressure, pregnancy and basic survival needs. Among participants who noticed more girls getting married before 18 in their community, the most selected reason was families needing money or resources (60.2 per cent). This was followed by girls becoming pregnant (58.0 per cent), families wanting to ensure girls had food or basic needs (50.8 per cent) and school closures or interrupted education (46.9 per cent), as shown in Table 16.

Drought stands out as the clearest warning sign for child marriage and pressure to marry or get pregnant. Among girls and young women whose main climate event was drought, 59.7 per cent said they had noticed more girls getting married before 18 in their community, compared with 32.7 per cent

among those whose main event was something else. They were also more likely to say they had noticed more girls experiencing pressure to marry or get pregnant (40.8 vs 22.2 per cent), and more difficulty accessing child marriage prevention and response services (40.6 vs 22.3 per cent).

Drought also shows up in girls' own experiences. Among girls and young women whose main climate event was drought, 14.2 per cent said they personally got married before 18 because of the climate-related event, compared with 10.6 per cent among those whose main event was something else. They were also more likely to say they personally felt pressure to marry or get pregnant (11.9 vs 8.7 per cent) and had more difficulty accessing child marriage prevention and response services (33.9 vs 17.5 per cent).

Zimbabwe shows the sharpest community-level warning signs. There, 64.2 per cent of participants said they had noticed more girls getting married before 18 in their community after a climate-related event, compared with 29.3 per cent across the other study countries. Zimbabwe also showed higher reported levels of community-level pressure to marry or get pregnant (35.0 vs 22.0 per cent elsewhere), and more difficulty accessing child marriage prevention and response services (36.1 vs 21.9 per cent).

Kenya also shows high levels of community concern. There, 45.6 per cent of participants said they had noticed more girls getting married before 18 in their community after a climate-related event. Kenya also stood out for pressure to marry or get pregnant (38.2 per cent) and difficulty accessing child marriage prevention and response services (37.7 per cent).

Senegal shows a specific pattern around pressure to marry or get pregnant. One in three participants (32.7 per cent) said they had noticed more girls and young women in their community experiencing pressure to marry or get pregnant, compared with 22.6 per cent elsewhere. This is also reflected in girls' own experiences: 19.1 per cent of girls and young women in Senegal said they personally felt pressure to marry or get pregnant after a climate-related event, compared with 6.7 per cent elsewhere.

Climate shocks can turn economic stress, food insecurity, disrupted education and service breakdown into pressure on girls' choices and futures. When families lose income, food becomes harder to secure, schools close, and services are disrupted, girls may face increased pressure to marry or become pregnant at the very moment they need protection and support most. This is especially visible in drought-affected settings and in Zimbabwe and Kenya, where more girls and young women noticed child marriage increasing in their communities while prevention and response services became harder to reach.

Table 16: Reasons for increased child marriage and unions^{xxiii}

Why do you think more girls in your community got married before they turned 18 as a result of the [climate-related event]?	Frequency	Percentage
Families needed money or resources	1,091	60.2%
Girls became pregnant	1,052	58.0%
Families wanted to ensure girls had food or basic needs	921	50.8%
School closures or interrupted education	851	46.9%
Family members died or households lost support	794	43.8%
Child marriage prevention and response services were disrupted	734	40.5%
Families wanted to protect girls from violence or insecurity	718	39.6%
Community pressure to marry	713	39.3%
Other	29	1.6%

^{xxiii} Percentages are calculated among girls and young women who said more girls in their community got married before they turned 18 as a result of the main climate-related event (n=1,813).

Don't know	24	1.3%
Prefer not to say	4	<1%

Sample: 1,813

7.10.1 Qualitative insights: Child marriage and unions

Child marriage before climate events

Across all five countries, girls and young women described a consistent pattern: climate events do not create child marriage and unions where they were absent, but they intensify and accelerate the conditions that make early unions more likely. Participants described child marriage and early unions as an established reality in their communities before any climate event.

In Bangladesh, marriage typically occurs between the ages of 14 and 17. The dominant pre-climate drivers are not purely economic but deeply tied to norms around honour, safety and reputation. Eve-teasing and sexual harassment on roads and in public spaces are widespread, and families respond by marrying daughters off young, partly to reduce their exposure and partly because an unmarried girl at home attracts social scrutiny. In extreme cases, girls who have been harassed or raped are married off to protect family honour, sometimes to the perpetrator himself. Moni (15, Bangladesh) described families choosing marriage over pursuing legal action precisely to avoid social shame, illustrating how the same honour logic that drives early marriage can also suppress the reporting of violence. In some communities, religious conservatism reinforces these norms, adding a further expectation that girls marry young. A social norm that treats women over 20 as 'too old' for marriage compresses the window further, as Runa (24, Bangladesh) put it: *"In our thinking, a girl becomes 'old' very quickly."* Poverty intersects with these norms, and families with multiple daughters and limited income see marriage as the resolution when a girl is no longer in school. Not every account pointed the same way: participants in one focus group observed that parents now force marriage less often than before, with early unions increasingly driven by young people themselves eloping, a shift they attributed to rising awareness and a growing wish to keep daughters in education.

In Zimbabwe, girls typically marry between the ages of 15 and 17. Bride price payments mean daughters represent a financial asset, and marriage becomes a practical economic decision during times of hardship. Peer pressure and sexual exploitation by older men, whom girls referred to as *"blessers"* offering money, food and goods, are widely described as pathways to early union, sometimes entered by girls seeking resources rather than arranged by families.

In Kenya, the context is stark. Participants consistently described marriage beginning at age 12, driven by a bride price economy in which livestock such as camels and cattle are the currency of exchange. Early marriage is both culturally embedded and explicitly financial, as Kaelo (19, Kenya) put it: *"Girls are married off at early age in exchange for animals."* For pastoralist families, a daughter's marriage represents one of the few remaining transactions available when climate has already depleted other assets.

In Peru, respondents reported that girls and young women in their community now form unions and partnerships from as young as 13, but most commonly at 15 to 16. Camila (15) put the current range at 15 to 16, with girls partnering with men of similar age or around 18, while Mia (16) and Susana (18) described unions beginning at 13 and 14. Girls and young women consistently described these as unions between adolescent couples (*"boyfriends and girlfriends"*) rather than with significantly older men, and the drivers they identified were largely social: a lack of parental communication and trust, girls seeking affection or independence, and a growing perception among adolescents that early unions are normal:

"I think it has increased, as people start to see it as something normal. Some time ago, girls started to move in with their partners at age 15, and teenagers have begun to see it as something normal. This should not be the case, because most of us teenagers should think about bettering ourselves or studying something to be more than just a housewife." Sandra, 15-19, focus group, Peru

These findings reflect what participants reported in the study communities in Piura and should not be read as representative of Peru as a whole. Regional and global evidence indicates that adolescent unions are more commonly formed with older men. National data suggests that, of an estimated 56,000 Peruvian children aged 11-17 living in informal unions or cohabitation, the large majority are girls in unions with adult men.¹⁸² The pattern of adolescent-couple unions described here is a specific feature of these communities, confirmed by the field research team.

In Senegal, girls and young women placed the typical age of marriage at 17 or 18, and described unions as consent-based rather than arranged or transactional. Participants reported that girls are married when they express a wish to do so, that parents leave the decision to them, and that consent is sought before any union takes place. Neither bride price nor honour-driven marriage featured in their accounts. Some attributed this to religious norms, describing Islamic education and the Qur'an as shaping how decisions about marriage are made.

Climate-related drivers of child marriage

An important distinction surfaces across all five countries: in the immediate aftermath of acute climate events, child marriage may temporarily plateau as households prioritise survival. Noor (24, Bangladesh) articulated this directly: *"During floods, child marriage does not usually happen much because there is a lack of food and resources. People focus on survival rather than arranging marriages."* This mirrors accounts from Peru, where some participants described no change during flood events. Senegalese accounts sharpen this observation. Most participants reported no change in marriage patterns after the floods, and Louise (23, Senegal) described the deferral dynamic explicitly: *"In my community, most weddings take place after the floods, when tranquillity returns and the situation becomes more stable."*

A minority of Senegalese participants described the opposite effect, where flooding was directly linked to early marriage. One example given was marriage following climate-related school dropout.

Accounts across countries point to the postponement of marriage during the acute phase, with the divergence appearing in what happens afterwards. It is in the recovery phase, as economic stress deepens and school disruption becomes entrenched, that early union risk rises most sharply. Climate shocks accelerate and compound existing vulnerabilities rather than producing a single acute surge.

Pathway 1: Health system breakdown

Although health system breakdown is not a primary driver of child marriage and unions, pregnancy itself acts as a distinct trigger for early union. In the survey, girls becoming pregnant was the second most commonly selected reason for increased child marriage in the community (58.0 per cent), behind families needing money or resources. Qualitative accounts across all five countries describe girls entering unions after becoming pregnant, frequently moving in with the father of the child. Because access to contraception and SRH information collapses during climate shocks (Pathway 1), this route becomes more likely even though Pathway 1 does not drive marriage directly. Where social norms attach shame to pregnancy or sexual activity outside marriage, this dynamic is reinforced, with unions formalising or pre-empting a pregnancy that would otherwise carry stigma. The pattern is most pronounced in the Bangladesh accounts, where pregnancy can affect a girl's perceived marriageability. The relationship between unintended pregnancy and child marriage and unions is therefore bidirectional and mutually reinforcing.

Pathway 2: Household economic pressure

Across Zimbabwe, Kenya and Bangladesh, climate-induced livelihood collapse drives families towards early marriage as a coping strategy. In Zimbabwe, drought destroys harvests and income, leaving families unable to pay school fees or feed all household members. Girls in the 15-19 focus group described poverty and food shortages as forcing some families to marry off girls to reduce household burdens. They said families see marriage as a way to secure a bride price or financial support. In Kenya, drought kills livestock, removing the primary source of both income and bride wealth. Kenyan accounts describe marriage as the route back. With no herd left to sell and no other income, marrying a daughter to a man who can still pay dowry in livestock is how a family recapitalises. Galgalo (22, Kenya) described the trade-off as it applied to her: *"My father has no livestock to sell and take me to college; that's how I accepted to be married off."* In Bangladesh, where floods can submerge homes and halt all income,

Shahina (19) described how economic pressure can push families towards child marriage: *“When floods leave people completely destitute, families think about financial hardship and marry off girls at a very young age.”*

Importantly, this is not solely a family-level decision. In Zimbabwe, girls themselves sometimes enter relationships with older men to access food, money or basic necessities, reflecting constrained agency in the face of scarcity:

“In some instances, girls themselves drop out of school to get married, hoping their status would change and they are cushioned from the effects of drought, but usually find that they have made a wrong decision.” Paidamayo, 21, Zimbabwe

In Peru, the economic mechanism is less transactional. Girls whose parents leave home to find work after floods are left unsupervised, taking on adult domestic roles before they are ready, and seeking companionship outside the household. Mia (16, Peru) described how this affects girls: *“Many times, it’s because parents go out to work due to floods and heatwaves ... and leave them and tell them to take care of the siblings. They are forced to play a role that does not correspond to their age ... They seek to de-stress, they look for company in a guy who can be their partner.”*

Senegal is the exception. No participant described marriage as a response to household economic loss, and neither bride price nor transactional union appeared anywhere in their accounts. The economic pathway that operates in Zimbabwe, Kenya and Bangladesh has no equivalent there, making the education pathway below the sole route through which climate events reach marriage decisions in that context.

Pathway 3: Societal protection collapse – education disruption

The disruption of education is the most consistently reported mechanism across all five countries. School closure or dropout (whether from flooding, unaffordable fees or family labour demands) removes not only learning but also the structure, supervision, SRHR information and peer support that ordinarily protect girls.

In Bangladesh, the link between school closure and marriage is direct. Floods submerge schools for months, and families respond to daughters staying at home by arranging marriages. Tahira (23, Bangladesh) described the connection: *“During the 2024 flood, schools remained closed for nearly one month, and as a result many families married off their daughters.”* An additional and specifically Bangladeshi dynamic compounds this: girls staying at home face intensified social scrutiny and are seen as a safety risk, as Shahina (19) explained: *“After floods, schools remain closed for many months. During that time, families feel that unmarried girls are not safe staying at home, so they arrange their marriages.”* Climate-related school closures thus activate both economic and protection rationales for early marriage simultaneously.

In Kenya and Zimbabwe, the pathway runs from fee unaffordability through dropout to early union. In Kenya, livestock migration takes girls out of school entirely. Kaelo (19) described the consequences: *“Drought forces many girls to drop out of school as they move along with boys and young men during the migration, leading them to unwanted marriage or union.”* Participants were explicit that the trigger in Kenya is not institutional closure: schools stayed open through the drought, but the loss of income that paid the fees removed girls from them one at a time. In Zimbabwe, dropout leaves girls idle and exposed, as Vimbai (17) put it: *“Girls dropping out of school enter into early unions. They have unwanted sexual advances from out-of-school boys who have nothing to do. The pressure is too much. Sometimes girls have no choice but to succumb.”* The protective function of school is most clearly expressed through its absence. Cherop (17, Kenya) explained what girls miss when they leave school: *“Girls in schools are taught on their rights, against early marriage, taught how to protect themselves ... Unfortunately, girls who are not in school miss out such important information on protection.”*

In Peru, school closures during floods leave girls isolated at home, often with mobile phone access and without parental supervision. Susana (18) described the resulting risks: *“These girls maybe stay at home and start talking to people on social media ... and start living with those people who maybe are not good.”* The pathway here runs through social exposure and loneliness rather than a formal economic transaction, but the destination -- early unions -- is the same.

Senegal accounts confirm this mechanism even though the economic pathway is absent there. Participants described school as the factor holding marriage back, and its loss as the point at which marriage becomes the default:

"I think that the school is a shield: it occupies, protects and gives a project. It makes it possible to delay marriage." Huguette, 23, Senegal

Flood-driven dropout was directly linked to marriages at 17 in Senegal. Participants described girls who leave school early as having no activity beyond household chores and no route into work. Madina (16, Senegal) described the consequences: *"The school is a protective space for children. When girls drop out of school, they find themselves without a job, and marriage often becomes their only option."*

Intersecting pathways are also evident: while health system disruption (Pathway 1) is not a primary driver of child marriage in participants' accounts, unintended pregnancy emerges as a trigger for early union across all five countries, through girls moving in with the father of a child after becoming pregnant. As access to contraception collapses during climate events, this pathway becomes more likely. The relationship between child marriage and unintended pregnancy is therefore mutually reinforcing.

7.11 Unintended pregnancy: climate shocks are limiting girls' choices

Girls and young women are telling us that climate shocks are linked to unintended pregnancy, both in their own lives and across their communities. Climate shocks can reduce girls' control over when they become pregnant. When information is harder to access, contraception is disrupted, protection weakens, and economic pressure increases, girls and young women face greater risks to their health, safety and futures. Overall, 10.6 per cent of girls and young women said they had experienced a pregnancy they did not intend as a result of a climate-related event.

Girls are seeing this even more clearly in the communities around them. Nearly **one in three** participants said they had noticed more girls and young women in their community experiencing unintended pregnancy because of a climate-related event (**32.6 per cent**).

The reasons girls gave point to gaps in information and education. Among those who noticed more unintended pregnancy in their community, the most selected reason was lack of information or education, or difficulty accessing sexuality and relationship education (80.9 per cent). This was followed by transactional sex or sexual exploitation (53.4 per cent),^{xxiv} difficulty accessing contraception (53.1 per cent), difficulty accessing emergency contraception (52.6 per cent), increased sexual violence (46.7 per cent) and weakened community support or protection (46.3 per cent), as shown in Table 17.

By climate event and country

Drought stands out as the clearest warning sign for unintended pregnancy. Among participants whose main climate event was drought, 54.3 per cent said they had noticed more girls and young women in their community experiencing unintended pregnancy, compared with 29.3 per cent among those whose main event was something else. Drought also shows up in girls' own experiences: 17.5 per cent said they personally experienced an unintended pregnancy because of the climate-related event, compared with 9.6 per cent among those whose main event was not drought.

In drought-affected settings, the reasons point to information gaps, unsafe coping pressures and disrupted services. Among girls and young women affected by drought who noticed more unintended pregnancy in their community, 82.4 per cent linked this to lack of information or education, or difficulty accessing sexuality and relationship education. This was followed by more transactional sex or sexual exploitation (69.5 per cent), increased sexual violence (55.7 per cent) and difficulty accessing contraception or emergency contraception (55.2%).

Zimbabwe and Kenya show the sharpest community-level concerns. In Zimbabwe, 55.5 per cent of girls and young women said they had noticed more girls and young women in their community

^{xxiv} See footnote xxii.

experiencing unintended pregnancy after a climate-related event. Kenya was similarly high, with 54.6 per cent saying they had noticed more unintended pregnancy in their community.

Zimbabwe also stands out when it comes to girls' own experiences. There, 19.7 per cent of girls and young women said they personally experienced an unintended pregnancy because of a climate-related event. Kenya had the second-highest figure, at 13.9 per cent.

The reasons for unintended pregnancy differ slightly by country, but the pattern is clear. In Zimbabwe, the most selected reason was lack of information or education, or difficulty accessing sexuality and relationship education (79.3 per cent), followed by transactional sex (62.3 per cent), difficulty accessing emergency contraception (53.5 per cent) and difficulty accessing contraception (50.1 per cent). In Kenya, the most selected reason was also lack of information or education, or difficulty accessing sexuality and relationship education (88.1 per cent), followed by transactional sex and weakened community support or protection (68.1 per cent), difficulty accessing emergency contraception (65.4 per cent) and difficulty accessing contraception (63.7 per cent).

Table 17: Reasons for increased unintended pregnancies ^{xxv}

Why do you think more girls and young women in your community got pregnant without intending to as a result of the [climate-related event]?	Frequency	Percentage
Lack of information or education, or difficulty accessing sexuality and relationship education	1,317	80.9%
Transactional sex or sexual exploitation ^{xxvi}	869	53.4%
Difficulty accessing contraception	864	53.1%
Difficulty accessing emergency contraception	857	52.6%
Increased sexual violence	761	46.7%
Weakened community support or protection	754	46.3%
School closures or interrupted education	680	41.8%
Other	22	1.4%
Don't know	14	0.9%
Prefer not to say	9	0.6%

Sample: 1,628

7.11.1 Qualitative Insights: Unintended pregnancies and pregnancy outcomes

Unintended pregnancies before climate events

Unintended pregnancies were reported as common, and in Zimbabwe girls and young women noted they were increasing. Participants across Bangladesh, Kenya, Peru and Zimbabwe described them as a recognised and ongoing reality, with girls becoming pregnant from as young as 12 and 13 in Peru. This report uses the term “unintended pregnancy” for consistency with the international evidence base, but pregnancies at these ages should not be understood through that lens. At 12 and 13, meaningful free and informed consent cannot be assumed, and such pregnancies frequently occur in contexts of sexual violence, coercion or abuse. Pregnancy in a very young adolescent is a high-alert indicator of potential sexual violence and should immediately prompt child safeguarding, protection and justice

^{xxv} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated among participants who said more girls and young women in their community had experienced unintended pregnancy as a result of the main climate-related event (**n=1,628**).

^{xxvi} See footnote xxii.

responses. In Peru, pregnancy in girls under the age of 14 is legally recognised as an indicator of suspected sexual violence and requires a coordinated response from the health, child protection and justice systems.

Multiple participants from Zimbabwe noted girls in primary and early secondary school becoming pregnant. In Bangladesh, Sayma (22) estimates that about half of the girls in her community became pregnant without intending to. In Kenya, it was recognised as a common and ongoing issue.

Senegal diverges sharply from this picture. Participants overwhelmingly reported that unintended pregnancy does not occur in their communities. Most individual interviews and focus group discussions described it as absent or very rare, and several participants attributed this to religious norms and the expectation that pregnancy follows a consensual marriage. Only Fatou (15, Senegal) said that many girls and women in her community become pregnant without wanting or planning to. It is important to note that participants also described marriage as occurring early and pregnancy within marriage as expected, so a low reported rate may reflect how the term is understood locally rather than an absence of unplanned pregnancies. Marie (24, Senegal) described pregnancies discovered late, both for herself and her cousin, while using contraception; she was five months pregnant when she discovered hers.

The most consistently cited driver across all five countries was a lack of knowledge and information about contraception methods, when and how to use them, and where to access services. Although participants in Senegal said unintended pregnancy was rare or did not occur, when they did reference it, they named the same driver, adding that some girls were unaware that free methods existed at all. This was compounded by poor communication between adults and adolescents. In Peru, mothers actively avoided discussing sex and contraception with their daughters, and girls described a fundamental lack of trust that prevented them from seeking guidance from parents:

“The mom was always heard to say ‘no, I am not going to say anything about that [sex and contraception] to my daughter, because if I tell her, we open her mind about it’.” Mia, 16, Peru

Partner and family pressure played a significant role, particularly in Bangladesh, Kenya and Zimbabwe, where husbands, in-laws, community norms and superstitions exerted direct control over contraceptive use. In Kenya, partners were said to refuse permission for contraceptive use, and participants described an inability to refuse sex within a relationship at all. In Bangladesh, participants shared how girls were pressured to have children:

“Using these methods is wrong and sinful, this is what they believe.” Sayma, 22, Bangladesh

“Many girls do not want to have a child, but some families or mothers-in-law harass or pressure them about this issue.” Maya, 17, Bangladesh

In Zimbabwe, one participant recalled her first pregnancy resulting directly from her husband's pressure:

“Even my first pregnancy was not planned. My husband put too much pressure on me. I realised it when I was already pregnant.” Chenai, 21, Zimbabwe

Cost was also a persistent barrier: contraceptives were unaffordable for many families, and transport to facilities added another layer of difficulty, particularly in remote areas of Kenya and Bangladesh. Girls and young women in Kenya described how cost and supply failures compounded one another: public facilities were reported to have no stock, while private clinics that had contraception in stock remained beyond what families could afford. In Kenya, fear of side effects was also described as deterring girls who were otherwise informed.

Stigma compounded this further. For others, the route to unintended pregnancy was through coercion and exploitation. Participants from Zimbabwe described girls' first sexual experiences as frequently occurring through force. Being sexually exploited by older men in exchange for goods, money or benefits was widely recognised as a pathway to pregnancy across Zimbabwe and Kenya, driven by girls' desire for basic necessities. Peer pressure to have sex was also identified as a common reason for unintended pregnancies in Kenya and Zimbabwe.

How climate events drive unintended pregnancies

Across Bangladesh, Kenya, Peru and Zimbabwe, most participants drew direct links between climate events and rising rates of unintended pregnancy. However, a few participants in Peru and Zimbabwe felt that rates would be similar regardless, attributing unintended pregnancies more to pre-existing social and economic conditions than to climate events specifically. In Senegal, the balance ran the other way: most participants reported no unintended pregnancies linked to the floods at all. Where links were identified, they operated through the three interconnected pathways described below.

Pathway 1: Health system breakdown

Facility disruptions, including staff being transferred or unable to reach facilities, severed girls and young women from the contraception and information they depended on. Flooded roads made facilities unreachable, while contraceptive stocks ran out and were not replenished. Moni (15, Bangladesh) described the compounding effect, noting that alongside a focus on meeting basic needs, multiple barriers (including transport disruptions) limited access to contraception: *“During floods, transportation problems make the situation worse. Women cannot go to the market, so they are unable to buy contraceptive medicines. Health workers do not visit our area and do not provide guidelines. As a result, women are left without access to family planning services, increasing the risk of unintended pregnancy.”*

Maria (24, Peru) recounted arriving at a health centre to collect her contraceptive injection and finding it flooded, with the obstetrician unable to get through. In Kenya and Bangladesh, participants described outreach workers – often the only route to contraception for girls and young women in remote areas – as being suspended during climate events. In Kenya, girls and young women described flooded roads cutting off access to both contraceptives and health information entirely, while Faith (15, Kenya) described women she knew who were simply unable to prevent pregnancy because they could not travel to the clinic during floods. Kenyan participants also noted public facilities holding no contraceptive stock and private clinics becoming unaffordable once drought had removed household income. Migration during droughts pushed girls even further from facilities. Guyatu and Kaelo (19 and 22, Kenya) noted that climate-driven movement patterns – linked to livestock migration in search of water and pasture – brought girls into contact with older men, directly increasing pregnancy risk.

Shahina (19, Bangladesh) recognised the importance of planning around climate cycles to avoid issues when health systems break down: *“Those who are aware plan their pregnancies, trying to avoid delivery dates falling during the rainy season”* – an acknowledgement that, for those with the knowledge and agency to do so, climate-conscious family planning was already a survival strategy.

Pathway 2: Household economic pressure

When livelihoods collapsed and money ran out, contraception became unaffordable across all five countries. In Kenya, Cherop (17) and Wanjiku (20) explicitly linked drought and the resulting loss of income and resources to unintended pregnancy, while Kaelo (19) described how the loss of livestock left families unable to afford contraceptives. Some participants in Kenya also described married women entering relationships outside the marriage in order to feed their children when a husband could no longer provide, and becoming pregnant as a result.

In Zimbabwe and Kenya, economic desperation drove girls into being sexually exploited for goods or money, with participants describing girls exchanging sex for basic necessities and becoming pregnant as a result. As Chenai (21, Zimbabwe) stated plainly: *“There is a clear connection [between drought and unintended pregnancies]. During drought, families lose money. Girls enter into relationships to get extra money.”* In Bangladesh, Shahina (19) said some women and their partners turned to abortion as a coping mechanism when the financial burden of another child felt impossible to bear, although this was not mentioned by other participants in Bangladesh.

In Senegal, participants linked contraceptive use directly to household means, observing that when women face economic hardship and displacement, access to services and information becomes contingent on money they do not have.

Pathway 3: Social protection collapse

School dropouts driven by climate shocks were consistently identified as a key risk factor across Bangladesh, Kenya, Peru and Zimbabwe, with Atieno (23, Kenya) directly linking weather-related dropout to increased early marriage and subsequent pregnancies. Families under economic stress fractured, and parents left communities to find work, leaving girls without guidance or trusted adults. Some parents in Kenya were said to marry daughters off pre-emptively, reasoning that an early marriage was preferable to a pregnancy that would bring disgrace on the family. When a pregnancy did occur, participants described girls being put out of the family home by their own parents. In Peru, participants spoke of girls responding to loneliness and family breakdown by seeking relationships and becoming pregnant, and several explicitly linked blackouts and disaster conditions to increased sexual violence and rape. As Anahi (15-19, focus group, Peru) noted, sexual violence during blackouts was sometimes a direct cause of unintended pregnancy among girls.

Adverse pregnancy outcomes

The consequences of these compounding pressures extended to pregnancy outcomes, with participants across all countries describing severe and sometimes fatal results. Flooded roads, impassable terrain and suspended services meant that pregnant women could not reach antenatal care, skilled birth attendants or delivery facilities. As Sayma (22, Bangladesh) shared: *“My son was born during the flood. This is something I will remember for the rest of my life. The suffering during that time was extreme. Transportation was severely disrupted because of the flood. My son was born under very difficult and painful circumstances.”* In Peru, participants spoke of pregnancy complications, forced home births, and risks to mothers and babies due to the inability to access medical services:

“In 2017 ... quite a few pregnant women had to give birth at home because there was no medical service, that is, it was complicated to cross the creek, and those who crossed risked their lives and the lives of the baby they were carrying.” Valentina, 23, Peru

Dina (19, Peru) recounted a woman giving birth in a river when no healthcare worker could reach the facility. In Bangladesh, participants described newborns and mothers dying from cold exposure after being trapped by floodwater, while Afsana (24, Bangladesh) recalled a woman going into labour on the day flooding began, ultimately delivering on a makeshift banana-trunk raft at a local school.

In Senegal, the harm described ran through sanitation rather than through distance. Pregnant participants reported clearing wastewater from their homes every day, slipping in it and falling ill, and being unable to complete prenatal visits because the roads were impassable:

“I had a difficult pregnancy because the sanitation infrastructures [septic tanks] were full. I had to carry basins of sewage on my head every day, and I had no space to relieve myself, the whole house being flooded. This situation led to complications during my pregnancy.” Kine, 22, Senegal

Another described a persistent skin condition since giving birth, which she attributed to walking daily through stagnant water to run her small business. By contrast, miscarriage and pregnancy loss linked to climate events were not widely reported in Senegal: most participants said they had seen no such change.

Girls and young women consistently described a sustained erosion of maternal health. In Kenya, participants said drought led to malnutrition among pregnant women, resulting in underweight babies and increased deaths. Guyatu (22, Kenya) linked poor nutrition directly to miscarriage and premature births. Half of the participants in Kenya described how the long distances women were forced to travel to reach health facilities, the long walks they took to collect water and firewood, and the heavy loads they carried while pregnant all contributed to miscarriages, alongside poor diet and the stress of financial loss. Kaelo (19, Kenya) connected pregnancy losses and complications during home deliveries directly to climate-related access barriers and reduced outreach services. These patterns were echoed in Bangladesh and Zimbabwe, where malnutrition caused by food shortages similarly led to miscarriages, premature births and underweight babies.

Infrastructure damage meant routine antenatal check-ups were missed. In Peru, participants noted that deteriorating roads created transport hazards that endangered pregnant women directly. Disease

outbreaks following floods, such as dengue and other waterborne illnesses, placed pregnant women at additional risk across Peru and Kenya. Stress itself was identified as a cause of pregnancy loss, with participants in Kenya and Bangladesh linking the cumulative anxiety of displacement and deprivation directly to miscarriage:

“During floods, communication systems are disrupted, clinics remain closed, and doctors are often unavailable. Even when women want nutritious food, they are unable to access it. This creates serious challenges for pregnant women during such times.”
Maya, 17, Bangladesh

These accounts are not isolated. In the survey, nearly half of girls and young women (49.4 per cent) had noticed more pregnancy- and childbirth-related problems – including miscarriage, complications during pregnancy, and problems during childbirth or with a baby – among girls in their community after a climate event. This figure rose to 62.7 per cent when the main event was drought and to 66.0 per cent in Zimbabwe. One in five (20.5 per cent) reported experiencing such problems themselves (see Table 11).

7.11.2 Qualitative insights: Mental health impacts

Across all countries, participants described how climate-related disasters extend far beyond the physical destruction to produce deep emotional and psychological harm. This harm falls disproportionately on adolescent girls and young women. Stress, worry, fear, anxiety and trauma emerged as compounding effects of simultaneous disruptions to homes, livelihoods, education, daily routines and access to SRHR services. Many respondents reported emotional distress with each successive disruption. This prolonged stress can deepen into more serious mental health conditions over time.

The most acute accounts came from girls and young women navigating pregnancy and new motherhood. Afsana (24, Bangladesh) evacuated her home by swimming to safety just 22 days after giving birth and carrying her newborn through floodwater. She watched her baby turn blue from the cold: *“Even now, remembering that suffering makes my hands, feet, and whole body tremble.”* Tahira (24, Bangladesh) describes the *“psychological stress”* of being pregnant when a disaster strikes, while Sayma (22, Bangladesh) recalls the compounding worry of pregnancy when flooding made access to a clinic, doctor, medication and nutritious food entirely unreachable. Nurjahan (20, Bangladesh) put it plainly: *“There is a severe shortage of adequate food, and people experience intense mental stress and anxiety because income and livelihoods stop. In such conditions, pregnant women and postpartum mothers suffer greatly.”* Anahi (15-19, focus group, Peru) spoke of unintended pregnancies resulting from sexual abuse during blackouts, and the psychological trauma that follows – trauma that participants recognised could affect pregnancy outcomes directly. Girls in displacement faced an additional layer of anxiety: in mixed-sex shelters where menstrual hygiene products and clean water were scarce or unavailable, participants described heightened stress around managing their basic needs with neither privacy nor adequate supplies.

Economic collapse deepened the distress. When crops were destroyed, livestock was lost and income stopped, mothers described an overwhelming fear of being unable to feed their children:

“There is definitely stress. When a flood happens, there is constant worry; where will we stay, where will we go, and what will we eat?” Sayma, 22, Bangladesh

In such situations, mothers cut back on their own basic needs to protect their children, while those primarily responsible for feeding the family suffer extreme emotional distress. Young women without children faced their own version of the same anxiety: *“We are facing emotional challenges due to dwindling resources,”* said Nasai (23, Zimbabwe), a feeling echoed by Sylvia (24, Zimbabwe) as well as Cherop (17) and Nafula (16) in Kenya, each of whom lost crops or livestock. When household stress escalated into conflict and fracture, girls were left feeling desperate and alone. Participants from Peru described how that loneliness pushed girls towards early partnership and pregnancy, abandoning their education and future plans. Mia (16, Peru) recounted feeling desperate when all her parents’ income was consumed by repairing their flood-damaged home, leaving nothing for her own needs. Participants in Kenya described the same emotional weight attached to livestock loss specifically.

Disruption to routine compounded everything. Maria (24, Peru) reported headaches caused by the stress of being trapped inside her house during rain and thunderstorms. She also noted that children confined at home due to school closures became stressed and withdrawn. Rahela (18, Bangladesh) described the quiet damage done to children's peace of mind when their daily rhythm was dismantled. Yet even where psychological support might exist, it remained out of reach for other reasons. Aitana (21, Peru) described how stigma around mental health created its own barrier: the fear of being perceived as having something wrong prevented girls from seeking help at all. For girls displaced into crowded, mixed-sex emergency shelters, disrupted routine came alongside a new and immediate threat. Sayma (22, Bangladesh) described how sheltering among strangers generated constant fear of sexual exploitation and abuse, with participants from Peru and Kenya recounting similar anxieties about harassment during the disrupted movements that climate events forced upon families.

In Senegal, rain itself became a trigger. Participants described lying awake through the rainy season in anticipation of water arriving, with Fatou (15) saying simply that they could not sleep peacefully because they knew the water could come at any time. Sleep was the most commonly affected function, reported as shallow, broken or invaded by nightmares:

“The floods traumatised me deeply. Since then, I sometimes have nightmares when I sleep.” Madina, 16, Senegal

The anxiety did not end with the floods. One participant described remaining anxious after the water had gone in fear it would happen again:

“When it rains, I don’t have peace of mind. Even when the water recedes, I still remain anxious because of the cracks in our homes.” Huguette, 23, Senegal

Others described exhaustion rather than fear, attributing persistent physical and mental tiredness to carrying flood-related household responsibilities alongside school. Louise (23, Senegal), a relocated participant, reported lasting fatigue and unease since the move. For mothers, the distress was attached to their children, with one participant describing constant worry about children falling sick from standing water and a sense of powerlessness at being unable to afford treatment for herself or for them. This matters for how the harm is understood: the accounts describe anticipatory and recurrent anxiety tied to a predictable annual season, rather than the aftermath of a single event.

7.12 Concerns about the future

Girls and young women are worried that future climate events will make sexual and reproductive health risks worse. Overall, **81.5 per cent** said they were concerned that at least one SRHR outcome would worsen for girls and young women in their community in future climate-related events.

The biggest future concern is unintended pregnancy. Four in 10 girls and young women were concerned that future climate-related events would increase unintended pregnancies (**40.3 per cent**). This was followed by difficulty accessing pregnancy and delivery care (37.6 per cent), difficulty accessing menstrual products (37.2 per cent), and child, early and forced marriage (33.9 per cent), as shown in Table 18.

Concern is especially high in Zimbabwe and Peru. In Zimbabwe, **94.8 per cent** of girls and young women were concerned that future climate events would worsen at least one SRHR outcome, with the highest concerns around unintended pregnancies (64.0 per cent), transactional sex or sexual exploitation (62.5 per cent) and gender-based violence (62.0 per cent). In Peru, 90.6 per cent were concerned about at least one future SRHR impact, with the highest concerns around unintended pregnancies (32.8 per cent) and difficulty accessing contraception (30.0 per cent).

Girls and young women who identify with at least one minority group are also more concerned about the future. Among those who identify with at least one minority group, 87.3 per cent were concerned about at least one future SRHR impact, compared with 72.1 per cent of those who did not identify with a minority group. Their top concerns were unintended pregnancies (48.0 per cent), difficulty accessing menstrual products (41.9 per cent) and gender-based violence (41.0 per cent).

Girls and young women who identify as a racial or ethnic minority reported particularly high concern. Among this group, 85.3 per cent were concerned about at least one future SRHR impact. Their top concerns were unintended pregnancies (53.7 per cent), difficulty accessing menstrual products (50.4 per cent), and child, early and forced marriage (49.2 per cent).

Table 18: Concern about climate-related events in the future

Thinking about similar [climate-related event(s)] in the future, are you concerned that any of the following will get worse for girls and young women in your community?	Frequency	Percentage
Unintended pregnancies	2,017	40.3%
Difficulty accessing pregnancy and delivery care	1,882	37.6%
Difficulty accessing menstrual products	1,861	37.2%
Child, early and forced marriage	1,697	33.9%
Difficulty accessing contraception	1,672	33.4%
Gender-based violence	1,667	33.3%
Transactional sex or sexual exploitation	1,622	32.4%
Difficulty accessing sexuality and relationship education	1,613	32.3%
Difficulty accessing sexually transmitted infection and disease services	1,492	29.8%
None of the above	901	18.0%
Other	33	0.7%
Prefer not to say	22	0.4%

Sample: 5,000

7.13 Solutions and recommendations

Girls and young women are clear that support exists in some places but is not reaching everyone. Overall, **17.8 per cent** said that no solution had been implemented in their community to address girls' and young women's sexual health needs in response to a climate-related event (see Table 19).

The implementation gap is concerning in Bangladesh. There, **40.8 per cent** of girls and young women said no solution had been implemented in their community, compared with **12.0 per cent** across the other study countries. By contrast, only 4.2 per cent of girls and young women in Zimbabwe said no solution had been implemented, suggesting much higher visibility of community responses there.

The most commonly reported solution is sexual health awareness or school-based sexuality and relationship education. Just over half of respondents said this had been implemented in their community (51.4 per cent), followed by awareness campaigns on child marriage (**33.1 per cent**)

Table 19: Solutions implemented in the community^{xxvii}

Have any of the following solutions been implemented in your community to address girls' and young women's sexual health needs in response to [climate-related event]?	Frequency	Percentage
Sexual health awareness campaigns or school-based sexuality and relationship education	2,572	51.4%
Awareness campaign relating to child, early and forced marriage	1,653	33.1%
Community midwife services	1,476	29.5%
Community-based counselling or psychosocial support	1,464	29.3%
Community reporting of GBV cases	1,384	27.7%
Safe spaces for girls and young women	1,340	26.8%
Mobile health clinics for sexual health	1,315	26.3%
Community distribution of menstrual products	1,299	26.0%
Community distribution of contraceptives	1,242	24.8%
Engagement of local leaders to reduce stigma related to sexual health	1,186	23.7%
No solution	888	17.8%
Other	32	0.6%
Prefer not to say	28	0.6%

Sample: 5,000

Girls and young women know what needs to happen to support their SRHR needs in a climate crisis. They are not only naming the risks, but also the solutions. Almost all respondents selected at least one solution to improve girls' and young women's sexual health in response to climate-related events (98.3 per cent). **Their top priority was engaging parents and community leaders in sexual health awareness.** This was selected by over one in four girls and young women (26.9 per cent), followed by school-based sexuality and relationship education (24.4 per cent) and training health workers on adolescent-friendly sexual healthcare (24.0 per cent), as shown in Table 20.

For girls and young women who identify with at least one minority group, the priority is practical support rooted in communities. Their most preferred solution was engaging parents and community leaders in sexual health awareness (28.6 per cent), followed by school-based sexuality and relationship education (24.8 per cent) and improving access to menstrual products (24.0 per cent).

Country priorities differ. In Bangladesh, the top priority was improving child marriage prevention and response services (29.2 per cent). In Kenya and Zimbabwe, improving access to menstrual products was among the highest priorities (29.0 and 35.4 per cent, respectively). In Peru and Senegal, engaging parents and community leaders was the top choice (36.9 and 35.0 per cent, respectively).

^{xxvii} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (n=5,000). Overall, **81.7 per cent** selected at least one solution that had been implemented in their community, including "Other" (n=4,084).

Table 20: Best solution to improve sexual and reproductive health and rights^{xxviii}

What do you think is the best solution to improve the sexual health of girls and young women in your community in response to a [climate-related event]?	Frequency	Percentage
Engage parents and community leaders in sexual health awareness	1,347	26.9%
School-based sexuality and relationship education	1,218	24.4%
Train health workers on adolescent-friendly sexual health care	1,198	24.0%
Improve child, early and forced marriage prevention and response services	1,115	22.3%
Improve access to menstrual products	1,063	21.3%
Improve pregnancy and maternal health care	1,021	20.4%
Strengthen laws and policies protecting sexual and reproductive rights	984	19.7%
Community-based counselling or psychosocial support	915	18.3%
Improve access to contraception	913	18.3%
Improve GBV prevention and response services	833	16.7%
Improve sexually transmitted infection and disease services	779	15.6%
Implement youth-led solutions	634	12.7%
Reduce stigma related to sexual and reproductive health	587	11.7%
Prefer not to say	86	1.7%
Other	52	1.0%

Sample: 5,000

Girls and young women are clear that decisions after climate events should not be made without them. Almost all respondents selected at least one way to better include girls and young women in decision-making after a climate-related event (**98.3 per cent**).

The strongest message is simple: listen to girls and young women first. The most selected action was listening to their ideas (39.1 per cent), followed by leadership training for girls and young women (33.7 per cent) and girl-only discussion spaces (27.3 per cent), as shown in Table 21.

Girls are asking for both voice and practical support. One in four selected transport and practical support to attend meetings (**25.0 per cent**), showing that inclusion requires more than an invitation. Girls and young women need safe spaces, support to participate and real opportunities to influence decisions that affect their lives.

^{xxviii} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (**n=5,000**). Overall, **98.3 per cent** selected at least one solution to improve girls' and young women's sexual health in response to climate-related events, including "Other" (**n=4,914**).

Table 21: How to include girls and young women in decision-making^{xxix}

What should be done to include girls and young women in decision-making to support your community after a [climate-related event]?	Frequency	Percentage
Listen to the ideas of girls and young women	1,955	39.1%
Provide training on leadership to girls and young women	1,683	33.7%
Create girl-only discussion spaces	1,363	27.3%
Invite girls and young women to attend high-level meetings	1,332	26.6%
Raise awareness about the importance of including girls and young women	1,310	26.2%
Give leadership roles to girls and young women	1,266	25.3%
Transport and practical support for girls and young women to attend meetings	1,250	25.0%
Work with existing girls' clubs or youth groups	1,200	24.0%
Include girls and young women from diverse backgrounds	1,103	22.1%
Prefer not to say	81	1.6%
Other	40	0.8%
None of the above	5	0.1%

Sample: 5,000

7.13.1 Qualitative insights: Responses, solutions and community priorities

Community and institutional responses

Across all five countries, girls and young women described the types of support that emerged in the wake of climate events. Support was often uneven and dependent on proximity to services as well as local relationships.

The most consistent response was informal mutual aid. In Bangladesh, families with concrete-roofed homes let 12-13 others stay on their rooftops during floods and in their aftermath, and helped each other rebuild homes after floods. Some girls and young women said NGOs and community leaders also distributed food packages, medicines and sanitary pads. Maya (17, Bangladesh) described relief distributed through community leaders and schools opened as emergency shelters. However, formal assistance was not universal and often insufficient:

“There are serious problems related to shelter and food.” Tahira, 23, Bangladesh

Beyond immediate relief, communities organised collectively to absorb the longer-term economic shock. In Bangladesh, neighbours shared stored food and formed communal cooking arrangements during and after floods, and took in those who were displaced. Girls and young women recounted keeping dry food like rice in raised parts of the house before the flood season, and Nurjahan (20, Bangladesh) described a gendered preparedness practice of sending girls to stay with maternal grandparents or aunts before floods arrived. In Kenya, women's savings groups and small-scale collective farming helped spread risk across households. In Peru, women created income opportunities for one another:

^{xxix} Respondents could select more than one response, so percentages do not add up to 100 per cent. Percentages are calculated out of the full sample of girls and young women surveyed (**n=5,000**). Overall, **98.3 per cent** selected at least one way to better include girls and young women in decision-making after climate-related events, including “Other”.

“Women have to do wonders, whether it’s working or selling something. There are women who prepare potatoes or jellies and go out to the streets to sell them, to bring some money home.” Dina, 19, Peru

Institutional support was more visible in Peru, though it could also be unevenly distributed. The municipality conducted aid campaigns in some areas after heavy rains while Plan International offered SRHR information and pregnancy prevention support to adolescent girls. Emergency helicopter deliveries and medical evacuations reached some of the most affected communities during severe flooding. Schools offered parenting sessions and continued to support pregnant girls after floods. In some communities, women organised collectively to run shared kitchens, ‘the Olla Comun’, ensuring families who could no longer afford food after price surges were still able to eat. Engagement with a programme-linked community space provided both practical strategies and a sense of not being alone:

“I had the opportunity to interact with many girls, to get to know them ... getting out of our environment and the situation we are going through and being able to ... live these experiences helps us in some way or another to feel better and to relate better with people.” Susana, 18, Peru

In Zimbabwe, child marriage and SRHR awareness campaigns run by the government and NGOs provided some protection. Girls described dignity pack distributions (menstrual health products and comprehensive sexuality education materials) by the Campaign for Female Education and Plan International as meaningful support that helped them stay in school. Reporting systems through community leaders, teachers and health workers helped some girls respond to violence and abuse. In Kenya, community networks and women’s groups provided food-sharing and emotional encouragement, and a Gender and Child Protection Technical Working Group operated during climate events. Girls also identified schools as a source of material support and protection, describing them as places where they felt safe and, where food was provided, could also receive meals.

In Senegal, the formal state response was limited and largely absent. Much of the support came from community- and faith-based structures like youth associations, women’s groups and the Badienou Gokh, alongside some assistance from local authorities. Girls and young women described aid from people of goodwill being distributed by the imam and the neighbourhood chief, a woman who came to hand out sanitary pads, and the mayor distributing basic necessities, food, and sand to limit the flooding. Youth associations mobilised to fill sandbags so that girls could cross flooded streets, and a team of health personnel worked with the population to make contraception easier for young women to obtain. Some NGOs were credited with providing hygiene kits, mosquito nets, bleach and sandbags to protect homes and walkways. The gaps participants identified are set out in the solutions section below.

Sometimes, community advocacy produced lasting change. A participant in Peru described how her community responded to repeated flood damage:

“After that year, we said it was enough. The community stood up and demanded that authorities build a bridge.” Valentina, 20, Peru

Individual coping

When climate events struck, girls and young women drew on whatever was available to them. Their coping strategies ranged from leaning on family, faith and collective solidarity to making difficult choices when no alternative options remained.

Emotional and social support

For emotional support, girls across all five countries turned first to those closest to them: mothers and fathers, siblings, partners, extended family, friends, and sometimes teachers and community workers. For some, faith and prayer were a source of comfort, with religious leaders and church or mosque communities playing an active role in Zimbabwe, Senegal and Kenya.

In Bangladesh, women’s and youth groups, trusted neighbours, and family elders provided emotional anchoring. In Peru, parenting sessions at school gave girls a structured space for reflection and support, and psychologists at health centres were described as extremely helpful:

“They come here to the psychologist. And in my case, I have also done that. Many teenage girls have found that they are listened to by the psychologist and by female doctors who also help us.” Susana, 18, Peru

In Senegal, support was described as layered and deeply social. Girls and young women placed family first, naming mothers, aunts, older sisters and neighbours, then the Badienou Gokh, the midwife, the imam, the neighbourhood chief, women’s associations and health professionals. What made these figures helpful was described in terms of manner rather than expertise:

“When stress or worry becomes very heavy, I notice that women turn to their loved ones or the Badienou Gokh. They do not judge and they give advice.” Huguette, 23, Senegal

For Angelle (15, Senegal), her father was her main source of encouragement, reminding her that a girl must believe in her abilities. Another Senegalese participant framed recovery itself in social rather than material terms:

“After the floods, girls’ and young women’s sense of security does not depend solely on the receding waters. It is mainly based on the presence of loved ones, the return of the usual landmarks and the small everyday gestures that reassure.” Fatou, 15, Senegal

In Kenya, girls’ sources of support depended on whether they were still in school: those attending went to their teachers for counselling and guidance, while those who had left relied on trusted family members and friends alone. Girls who had dropped out of school thus had fewer routes for seeking help.

In contexts where none of these forms of support were available, some women simply kept things to themselves. Tahira (23, Bangladesh) noted that for many, the pressure became unbearable: *“To reduce mental stress, many commit suicide.”*

Practical and household resilience

Alongside collective solidarity, individual households also adapted in practical ways to absorb the shock. In Zimbabwe, women took on casual labour and relied on relatives for assistance. In Bangladesh, families adapted cooking methods, took loans, alternated residence between homes, and stockpiled medicine and dry food in anticipation of flooding. Some found adaptive solutions to disrupted menstrual hygiene, using reusable cloths, herbs and whatever materials were on hand.

Small trade was the most common practical adaptation in Senegal, where girls and young women described starting businesses to cover daily needs. Marie (24) said she started to sell porridge in the mornings and evenings to support herself and her family, adding that most girls and young women turned to small businesses because income was otherwise insufficient. Sofia (16) described her mother borrowing money to run a small business, with Sofia herself helping to move the goods. Ndeye (20) also described mothers processing cereals collectively and selling the products to one another. Girls and young women organised themselves in more structured ways too, forming non-profit associations to save towards financial independence, and pooling mutual protection and labour. Huguette (23) described how girls and young women supported one another through practical solidarity, including helping each other with household work and sharing strategies for coping with hardship.

When entrepreneurship was not possible, girls and young women in Senegal took waged work outside the household. Adama (18) worked as a housekeeper because there were not enough resources or opportunities in her community. Households also absorbed costs they had not previously carried, with Louise (23) noting that they now buy charcoal for cooking despite it being an additional expense.

In Kenya, girls and young women described petty trade in the same terms: selling miraa and vegetables, washing clothes for around 200 shillings, and running a grocery stall alongside a husband’s motorcycle taxi work. Relatives were the other mainstay, with Halima (24) describing a brother who went around the family for contributions and, with a government loan, returned to college, and a father who lost 100 goats and sheep to the drought and then received a donation of three goats from relatives.

Survival coping and harmful adaptations

Many of the strategies girls described were not choices freely made, but survival responses to structural failures. Reducing meals from three to two, or to just one per day, was near-universal. Valentina (23, Peru) described going without food herself to feed her children: “... *when there are young children, they are the ones who motivate us. We have to put food on the table, even if we don't eat but they do.*” Participants in Senegal described the same, with Astu (19) saying she no longer eats as she used to.

The most harmful coping responses for girls were driven by economic desperation. Across Bangladesh, Kenya, Peru and Zimbabwe, the collapse of income, school closures, and loss of family support pushed girls into early marriages and unions, sometimes decided by parents, and sometimes entered into as a perceived route to safety or food. In Zimbabwe, the dynamic was described starkly:

“They are not very safe, rather very vulnerable as men target them for sex, capitalising on their desperation for food.” Melo, 24, Zimbabwe

“Storms and the devastating effects on income lead to pressure of indulging in sexual activities.” Nasai, 23, Zimbabwe

Sexual exploitation in exchange for goods, money or benefits, and dropping out of school to take up unsafe or informal work in bars, in logging, and on construction sites were reported across multiple contexts as responses to economic collapse. In Peru, girls as young as 14 were described as working in bars, sometimes sent there by their parents, where they could be subject to harassment and exploitation. In Kenya, girls and young women were described as brewing and selling illicit alcohol, selling miraa, collecting hardcore (broken stone and rubble used as construction fill) on construction sites, and being sexually exploited. Deka (19, Kenya) also described married women entering relationships outside the marriage when a husband could no longer provide for the children. Others reported pregnant women carrying heavy loads of firewood and water as paid work. In Kenya and Zimbabwe, the unavailability of menstrual health products was itself named as a driver of girls entering into relationships with older men in which they were sexually exploited in exchange for menstrual products. For Deka, the loss of livelihoods left her little choice but to engage in sexual exploitation for money when her mother was ill:

“When my mother gets sick, and I have no money to help her, I go out to look for someone who has the money to help ... He asks to do one, two, three things, and you're forced to do six rounds [meaning you have sex with them] so that he gives you the money.” Deka, 19, Kenya

In Senegal, the dominant harmful adaptation was hazardous agricultural labour. Participants described travelling out of their localities to work on plantations and in bean fields for income they described as too low to meet their needs. The risks were in the work and in getting to it:

“We have not seen any help from the authorities, which is why we work in the bean fields and it is risky. I get up at 5 am to work in the fields and breathe in products such as pesticides.” Marie, 24, Senegal

Rose (20, Senegal) described having to wake up very early to reach the vehicles that carry workers to the fields, which made the journey itself a hazard.

These adaptations are not only economic but also protection and SRHR risks in themselves: hazardous agricultural labour in Senegal, and early marriage or sexual exploitation elsewhere, each map onto the framework's protection-collapse pathway and its downstream SRH outcomes.

What was missing

Participants across all five countries felt some key areas of support were missing during and after climate events. In Bangladesh, several participants described the near or total absence of a formal government response:

“During floods, we do not see anyone from the administration coming to check on us; no one comes to assess what kind of services people need or whether they should be taken to shelter centres. There is no such system and no responsible authority

present ... After floods, no one carries out any activities in our area. No organisations come, and we do not receive any government assistance.” Sanjida, 20, focus group, Bangladesh

Shelters were particularly under-resourced, with existing centres too small, and in other areas none existed at all. Essential supplies, including sanitary pads and iron and calcium supplements for antenatal care, were routinely absent at shelters or when handing out provisions. Early-warning systems were inconsistent: warnings were communicated via mosque loudspeakers where they functioned, but were entirely absent when electricity failed, with respondents relying on word of mouth to spread messaging.

In Peru, many communities reported that authorities simply did not appear. There were no municipal plans, no coordinated response and no campaigns after events. Participants said no actions had been taken to help after climate events, and girls in remote settlements faced compounding isolation as roads became impassable and communications failed. One participant described the loss of communal support systems in her urban context compared with her highland community:

“We are individuals, we do not support each other. That’s why my neighbour says that the city around here is very ugly; it’s not like when we lived in the mountains and we all got together.” Maria, 24, Peru

Girls and young women in Senegal had the same account of absent authorities, with the added frustration of commitments made and not honoured. They described promises repeatedly given by authorities but not kept, including the absence of even routine hygiene provisions. Mariam (24, Senegal) described household spraying that never materialised while wastewater outside turned green. When aid did arrive, it came through community- and faith-based structures rather than the state, distributed by the imam and the neighbourhood chief, or through people of goodwill, including a woman who handed out sanitary pads. Participants in Senegal also mentioned an NGO providing hygiene kits, mosquito nets, bleach and sandbags. However, they also identified what emergency responses consistently overlooked:

“During and after a flood, the specific needs of girls remain invisible in the face of the emergency.” Fatou, 15, Senegal

Early warning was absent altogether. Marie (24, Senegal) reported receiving no alerts and having no access to real-time weather information, leaving her unprepared for flooding that recurs on a predictable annual cycle. Community-based structures carried health information during floods, as set out below, but no one provided weather forecasts.

In Zimbabwe, girls identified specific gaps in support, including continued education pathways for pregnant girls and new mothers; food provision to reduce pressure and domestic violence; and livelihood support such as small-scale farming, goats, chickens and borehole drilling. In Kenya, girls named law enforcement and a rescue centre for survivors as missing, alongside restocking support for families whose herds had died in the drought, without which there is no route back to a livelihood. Across all contexts, girls said support for those experiencing unintended pregnancies, such as psychological care, information and guidance on navigating motherhood, was almost entirely absent after climate events. A participant in Zimbabwe summarised the gap in community-level responses:

“We need community development projects so that we absorb the shocks during times of disasters.” Nasai, 23, Zimbabwe

Solutions

Girls and young women across all five countries not only described what had gone wrong, but also articulated what needs to change. Their proposed solutions are grounded in direct experience, span the immediate and the structural, and consistently place girls and young women themselves at the centre of the response.

Reducing child marriage and unions: Keeping girls safe and in school

Preventing child marriage and unions in the context of climate events requires addressing the economic and educational drivers that girls themselves identified. In Zimbabwe, girls called for free contraceptives and youth-friendly SRHR services, school fees and stationery support for vulnerable girls, and accountability for community leaders to ensure children of school age attend. They proposed girls' clubs and peer support groups as safe spaces to discuss sexual health, relationships and rights, alongside income-generating and sporting youth clubs. Participants also highlighted the need to actively support school re-enrolment after climate-related disruption, and to ensure girls can continue their education following a pregnancy – a pathway currently absent in most contexts. In Bangladesh, respondents called for livelihood opportunities and skills-based work as post-event support that lowers the risk of child marriage, and for legal protections against child marriage to be communicated through targeted training for boys, girls and parents separately. Participants raised the specific issue of falsification of age documentation as a mechanism that undermines legal protections, calling for community-level accountability systems:

“The legal system needs to be strengthened ... community members and family members also need to be made aware.” Deetya, 23, focus group, Bangladesh

Girls who had survived child marriage spoke most directly:

“Us, as the survivors of child marriage, should raise the awareness.” Memory, 15-19, focus group, Zimbabwe

In Peru, girls emphasised peer-led prevention approaches, including girls with lived experience of early unions sharing their stories to raise awareness, the development of youth leaders to support and guide others, and the creation of youth groups. They also highlighted the importance of maintaining access to information during disruptions, proposing school-based and community channels, as well as remote communication approaches, to ensure girls remain informed and connected to support. Participants further pointed to the need for stronger coordination between local authorities, health services and community actors to prevent and respond to risks facing girls.

In Senegal, dropout was driven by the flood itself rather than by school fees: flooded paths that made the journey impossible or unsafe; homes without electricity in which lessons could not be learned; housework that took priority in the mornings; schools that were themselves flooded or closed; and displacement that put the school beyond reach. As solutions to these issues, girls and young women proposed paid work, financing to start a business, vocational training, and a school close enough to keep attending.

In Kenya, the priorities were clear: education, improved health services and economic empowerment were described as the three foundations for reducing child marriage and unions. Girls and young women drew the link with education and economic empowerment directly, describing those who had completed their education and held paid work as the ones who felt protected during drought. A salary meant they were not dependent only on livestock, which could die. School itself was described as protective in more immediate terms too, as a place where girls were safe and fed. Girls and young women in Kenya also described education being sustained through relatives contributing to school fees and through a government loan that allowed a sibling to return to college, indicating that targeted financial support at the point of dropout can reverse it. In Zimbabwe, school fees support and community leader engagement to keep girls enrolled were explicitly linked to reducing unintended pregnancies, recognising that girls out of school are most at risk.

Reducing unintended pregnancies

Girls called for better access to contraception (including free provision at clinics), alongside SRHR information through channels that remain functional when normal services collapse. In the 20-24 years focus group in Zimbabwe, free family planning and waiving hospital charges were the top-ranked solutions. In the 15-19 years focus group, girls prioritised the formation of clubs, awareness campaigns for parents, and the provision of contraceptives and sanitary pads as the top solutions, a ranking that reflects both immediate needs and longer-term protection.

In Bangladesh, specialist gynaecologists and a well-equipped local hospital were the highest priorities, shaped by the reality that the nearest adequate care was hours away for many in Sunamganj.

***“Due to the long distance, it becomes extremely difficult, and in many cases, pregnant women die before reaching proper medical care.”** Deetya, 23, focus group, Bangladesh*

In Peru, girls called for psychological support, information and guidance for those navigating unintended pregnancies, a form of post-event care currently absent in most communities. Sofia (20, Peru) went further, urging that girls, teenagers and young people have access to clear information on contraception, disease prevention and early pregnancy.

In Senegal, girls and young women proposed awareness sessions to improve knowledge of how to access SRH services and identified staying in school as an important preventive measure. Some framed prevention in terms of abstinence, reflecting the religious norms they described as shaping behaviour in their communities. They also highlighted two changes already underway that they valued: a new pharmacy opening in their area and a mobile team of health personnel making contraception easier for young women to obtain, including those unable to travel when roads are flooded.

Community information and early warning

A recurring priority across countries was better information, both for disaster preparedness and for SRH services. Girls proposed WhatsApp groups moderated by health centres, gynaecologists or trusted community liaisons, enabling information to reach girls even when roads are impassable:

***“They should leave that information to someone in charge in each community who has access to that group and sends that type of information so that teenagers are informed despite the current phenomena.”** Anahi, 15-19, focus group, Peru*

Community radio, peer education networks, temporary campaign stands at community events, and online pages were all proposed as complementary channels. In Peru, girls also called for inter-institutional committees led by mayors and including health centres, police and community organisations to coordinate preparedness and response. In Bangladesh, the absence of adolescent girls' clubs was named as a missed opportunity, as organised groups could both provide information and serve as platforms for collective advocacy.

Senegal offers a working example of the person-based channel that participants elsewhere proposed, though only for health information. Girls and young women described the Badienou Gokh coming to them during floods to provide information and raise awareness about health issues, including sexual and reproductive health. They identified her as their source of family planning as well as antenatal and menstrual health guidance. Sometimes, information was also sought digitally on mobile phones, but some girls and young women described losing network coverage during flooding, so the community figure proved more reliable for health information. No equivalent channel existed for weather.

Sanitation, infrastructure and livelihoods

Where basic infrastructure had failed, girls and young women placed its repair ahead of service-level interventions. This was especially the case in Senegal, where girls' and young women's priorities clustered differently from those in the other countries – around sanitation, infrastructure, electricity and vocational training rather than clinic-based provision. Participants there ranked the physical environment first, wanting improvements to sanitation and hygiene, electricity, housing and road access, alongside vocational training. Transport was described as the most urgent problem because geographic inaccessibility is compounded by a scarcity of money to overcome it. Some participants also added a hospital and a school to their priorities. SRHR services did not feature in the Senegalese girls' and young women's ranking, but this is consistent with their accounts of having comparatively good services, where clinics and contraception are generally accessible. The binding constraint was the sewage, the road and the absence of paid work rather than the service itself.

In the other study countries, the same emphasis appeared alongside requests for services rather than in place of them. In Zimbabwe, girls and young women called for borehole drilling and livelihood support through small-scale farming. In Kenya, they called for support for families to replace herds that had died in the drought as well as for diversification into farming, including beekeeping and poultry alongside training in business skills. In Peru, the deterioration of roads was described as a direct hazard to pregnant women rather than only an obstacle to reaching care. Taken together, these proposals locate a substantial part of the SRHR response outside the health system: in drainage, roads, electricity and household income.

Youth-led action

Across Zimbabwe, Peru, and Kenya, girls and young women expressed a clear desire to be active agents in their communities, not passive recipients of support. They proposed peer education models in which older girls and young women who had completed their education would motivate younger ones, and survivors of child marriage and unions would lead awareness campaigns. In Peru, girls proposed youth leadership groups in every village to provide information, support and protection. Mobile clinics, proposed in Zimbabwe, were seen as a practical way to extend services to girls who could not reach fixed facilities during or after climate events. Girls in Kenya identified three priorities for themselves and their communities: education, improved health services and economic empowerment.

In Senegal, this was already happening on a small scale and without external support. Young people in one neighbourhood had formed an association that girls and young women credited with giving them access to information they would not otherwise have had. Elsewhere, youth associations mobilised to fill sandbags so that young people could cross flooded streets to reach school and services. Girls and young women also described more sustained forms of self-organisation, including non-profit savings associations to build financial independence and collective efforts to pool labour and mutual protection – from doing laundry for neighbours and covering for one another to holding talks on how to cope with hardship. These are the same structures that participants elsewhere in this study proposed as solutions, already operating in Senegal. What girls there lack are not ideas but resources. One participant connected girls' active involvement with a sense of protection:

“Girls feel protected when they have something to do, when they are confident, when they are not alone, and when they have someone they trust to confide in.” Huguette, 23, Senegal

7.14 Conclusion of survey, interviews and focus groups

Taken together, the survey of 5,000 girls and young women, the interviews and the focus group discussions across Bangladesh, Kenya, Peru, Senegal and Zimbabwe tell a consistent story. For adolescent girls and young women living in climate-affected communities, climate change is not a distant or future threat but a current force already reshaping their health, safety and SRH choices. More than nine in 10 reported that climate events had placed their household under serious pressures (91.6 per cent), and 91.1 per cent shared that these negative impacts rippled across their wider community. Crucially, these shocks did not stop at homes and livelihoods: more than two in three girls and young women (67.7 per cent) said at least one SRH service became harder to access after a climate event, and more than four in 10 girls reported at least one personal SRHR situation (such as an unintended pregnancy, early marriage, pressure to marry or the loss of trusted support) in the wake of a climate event.

What emerges most strongly from the participants' own accounts is that climate rarely creates these harms; rather, it intensifies and accelerates risks that were already present. Across every country, girls and young women described health systems that were already stretched, services that were stigmatised and hard to reach, and norms around marriage and unions, honour and gender-based violence that predated any climate event. Climate shocks take these fragile systems and push them past breaking point. The harms caused by climate shocks are also not confined to the initial shock. Girls and young women repeatedly described how the gravest risks, such as early marriages and unions, sexual exploitation in exchange for goods, money or benefits, school dropouts and unintended pregnancies, often surface during the slow recovery phase, when savings are exhausted, schools are closed and economic pressure deepens.

The three pathways identified in the literature were borne out vividly in the girls' and young women's experiences. Health system breakdown closed clinics, emptied shelves of contraceptives and menstrual products, and severed access to the outreach workers and school-based information that many girls and young women relied on as their only source of SRHR support. Household economic pressure stripped families of the means to pay for transport, menstrual products and contraception, and pushed girls and young women towards harmful coping strategies. The collapse of social and institutional protection meant displacement into unsafe shelters and increased school closures, while the breakdown of reporting systems removed the safeguards on which girls and young women depend. These pathways rarely acted alone, and the survey shows where they converged most sharply:

menstrual health and clean water to manage menstruation were the most widely reported access crisis (46.0 per cent), and pregnancy- and childbirth-related issues were the most common personal harm girls and young women described (20.5 per cent).

Although extreme heat (33.0 per cent) and flooding (27.6 per cent) were named most often as the events with the most severe impact on communities, it was drought that emerged as the clearest warning sign for girls' and young women's access to SRHR care. Participants whose main climate event was drought were consistently more likely to report difficulty accessing at least one SRHR service (83.7 per cent). Drought was also linked to girls getting married before 18 (59.7 per cent), pregnancy health or childbirth-related issues (62.7 per cent), unintended pregnancy (54.3 per cent), and gender-based violence (47.6 per cent) in their communities. This pattern of a slow-onset emergency producing the most acute reproductive and productive harms points to the economic channel: as drought erodes food, water and income over months or years, the pressure reaches directly into girls' and young women's bodies, relationships and futures.

These burdens were widespread, but they were not shared equally. Girls and young women already facing marginalisation bore the heaviest weight: those who identify with a minority group, those in rural and agriculture-dependent households, those with disabilities, and those out of school consistently reported the widest gaps in access and the sharpest risks. The country picture showed the variation across contexts, with girls and young women in Zimbabwe reporting high levels of burden across nearly every survey response: from experiencing at least one negative household impact (98.3 per cent) to gender-based violence, with 60.0 per cent of girls and young women noticing increases in their community. Distinct national patterns emerged elsewhere, such as the pronounced pressure to marry or become pregnant in Senegal (19.1 per cent) and the high levels of personal SRHR impact in Peru (56.8 per cent). These findings demonstrate that responses cannot be uniform. They must be shaped around the specific pressures girls and young women face in each context and must reach those already pushed furthest from support.

Yet girls and young women were far from passive in the face of these pressures. They described drawing on family, peer networks and collective community action to cope, even as some were forced into survival strategies such as reducing meals, being sexually exploited for goods, money or benefits, and entering early unions. These were not freely made choices but responses to structural failures. Girls and young women were clear about what needs to change. Their top priority was engaging parents and community leaders in sexual health awareness (26.9 per cent), followed by school-based sexuality and relationship education (24.4 per cent) and training health workers on adolescent-friendly sexual healthcare (24.0 per cent). Alongside this came an equally clear demand to be heard: listening to girls' and young women's own ideas (39.1 per cent) was the most selected way to include them in decision-making after a climate-related event. Solutions need to place girls and young women themselves at the centre of the climate response – and the response is urgent given that 81.5 per cent of survey respondents were concerned that future climate events will make at least one of their SRHR outcomes worse.

8. Reading the evidence together: where methods converge, and where they diverge

Bringing together a large-scale historical statistical analysis, a survey of 5,000 girls and young women, and in-depth qualitative interviews is a deliberate strength of this research. The historical statistical analysis spans 52 countries of varying incomes, giving breadth but only a subnational-level view; the survey covers 5,000 adolescent girls and young women in five countries; and the interviews, fewer in number, capture lived experience most closely of all. Where the methods measure the same thing, they agree, and where they differ, it is because they are measuring different things, not because we are explaining away inconvenient results. Child marriage is the clearest test: it rises with drought in the statistical analysis, in the survey (14.2 per cent of girls affected by drought married before 18), and in girls' own accounts alike. The divergences fall on genuinely different measures: the incidence of one form of violence versus access to protection services, or contraceptive use versus access to it. Read together, each method captures part of a picture none could show on its own.

The clearest apparent divergence concerns gender-based violence. Our qualitative interviews describe climate events intensifying violence and insecurity in girls' lives, including harassment, sexual exploitation of girls desperate for food, and early marriages as survival responses when income and schooling collapse. The survey echoes this: nearly one in four girls (23.7 per cent) said they noticed more girls and young women in their community struggling to access GBV prevention and response services after the main climate event, rising to 39.4 per cent where that event was drought; 11.0 per cent reported getting married before 18; and 8.7 per cent reported direct pressure to marry or become pregnant.

The secondary statistical analysis, by contrast, found no measurable association between climate hazards and recent intimate partner violence. These are not contradictory accounts of the same thing; they are accounts of different things. The historical statistical analysis could only test one narrow slice of GBV (recent violence by an intimate partner) using DHS data averaged to the regional level over a one-year window. It did not measure, and could not capture, what the survey and interviews surface: the collapse of protection services, the exploitation girls describe, and early and forced marriage. Notably, child marriage (which Plan International understands as a form of gender-based violence) showed a clear and significant association with drought in that same statistical analysis, and 36.3 per cent of girls in the survey said they had seen child marriage becoming more common in their community. The honest reading, then, is not that climate leaves girls' safety untouched, but that its imprint on the broad spectrum of GBV is visible across our survey, our interviews and the child marriage findings, while the incidence of intimate partner violence left no signal at the regional scale.

Contraception presents a similar puzzle that resolves in the same way. Our interviews and survey are dominated by stories of access breaking down: in the survey, more than two in three girls (67.7 per cent) said at least one SRHR service became harder to reach after the main climate event, and 26.2 per cent reported greater difficulty accessing contraception or sexually transmitted infection/HIV services. This rose to 36.4 per cent where drought was the main event. The qualitative accounts add concrete details: damaged clinics, exhausted supplies, pills lost in evacuations, and health posts cut off.

The statistical analysis, however, found that prolonged drought was associated with higher contraceptive use. The two findings sit comfortably together once we recognise they measure different things: our survey and fieldwork capture disruptions to access (e.g. what girls experience trying to reach a service), while the statistical measure captures actual use, and the drought result most likely reflects families postponing childbearing under sustained economic stress – a rise in demand that can occur even as access becomes harder for many. Tellingly, the statistical analysis of storms (sudden, destructive events) pointed the other way, associating storm exposure with lower use, exactly the supply-side disruption our survey and interviews describe. Read together, the three methods describe a textured picture: slow-onset drought working through economic pressure on the demand side, acute storms disrupting supply, and our survey and fieldwork giving voice to the immediate, lived reality of services collapsing when girls need them most.

Two principles guide how we hold these strands together. First, a statistical finding of “no association” means no measurable signal at the regional level given the available data, not proof that no effect exists, particularly where the underlying event data are coarse and incomplete. Second, we do not treat any one method as more important than any other: the statistical analysis does not overrule what girls told us in the survey and interviews, nor does our fieldwork override the patterns in the data from our historical analysis. Each method sees part of the picture, and stating plainly what each can and cannot see is what allows the parts to add up to more than their sum.

9. Concluding insights

This report set out to strengthen and deepen the evidence on how climate change is a threat multiplier for the sexual and reproductive health and rights of adolescent girls and young women. It does so by drawing together a literature review, a large-scale statistical analysis spanning 52 countries and three decades, a survey of 5,000 girls and young women, and in-depth interviews and focus groups across five countries. The evidence is clear: climate change systematically disrupts the conditions under which girls and young women can exercise sexual and reproductive autonomy and remain safe.

The clearest channel for the harms experienced is economic. Slow-onset drought is the hazard most consistently associated with harm to girls' and young women's sexual and reproductive health and rights, landing hardest on the timing of marriage and childbearing, driving up rates of child marriage and unions, and reshaping when and whether girls and young women can decide to become pregnant. Sudden-onset shocks such as storms and floods leave a far less consistent imprint in the large-scale statistical analysis, but girls' and young women's own accounts describe severe disruptions amid those shocks. The implication is significant: the gravest risks to girls' and young women's health, safety and rights accumulate over months and years of cumulative climate pressure, rather than erupting from a single disaster.

These harms do not occur in isolation. Across contraception access, gender-based violence, child marriage and unions, and unintended pregnancy, the same mechanisms recur and reinforce one another. Unintended pregnancy shows this convergence clearly. It is the point where girls and young women lose both the means to prevent pregnancy and the conditions that keep them safe at the same time. Understanding these outcomes as interlocking rather than separate is essential, because interventions that address one in isolation will be undercut by the others if left unaddressed.

At the heart of the evidence sits a question of climate justice. The girls bearing the sharpest consequences are those whose rights were already least secure, and who are least responsible for the emissions driving the crisis. A climate response that is gender-neutral, or that treats girls as a single group, will by design miss those it most needs to reach.

If the evidence reveals a consistent threat, it also points to a consistent lever. Across every strand of the statistical analysis, girls' education emerged as the single most stable protective factor, associated with lower rates of child marriage and unions, lower rates of violence, and steadier SRHR outcomes, regardless of the hazard. Keeping girls in school during and after climate shocks and treating SRH information and services as critical infrastructure rather than as a discretionary add-on is vital. The girls and young women in this research understood this intuitively, naming sexuality education, information and the right to be heard among their highest priorities for change.

Education, however, is not the only lever the evidence points to. As the analysis above makes clear, the clearest channel of harm is economic: slow-onset drought drives child marriage and unions and reshapes decisions about childbearing, largely by intensifying pressure on household income. This makes economic security an equally important point of intervention in order to reduce reliance on harmful coping strategies such as child marriage and unions, sexual exploitation or withdrawing girls from school. Social protection and income support that cushion families against climate-driven losses are a necessary complement to keeping girls in education and treating SRHR information and services as critical infrastructure. Safeguarding girls' rights under climate stress depends on acting on both levers at once. This means sustaining girls' education and capabilities while relieving the economic pressures that translate climate shocks into a loss of safety, health and choices.

The evidence assembled here is sufficient to act upon, and the window for prevention rather than repair is narrowing. Climate hazards are intensifying, fragility is deepening in many of the contexts where these harms are sharpest, and every year of delay widens the gap between what the evidence shows is needed and what girls and young women actually receive. The cost of continued inaction will be measured in the eroded health, safety and futures of the girls and young women least able to bear it. The recommendations that follow set out how governments, donors and humanitarian and development actors can begin to respond. A common thread runs through these actions: girls and young women, whose testimony anchors this report, must be at the centre of the solutions designed in their name.

10. Recommendations

Climate adaptation cannot be considered successful if adolescent girls lose control over their bodies, health, education or futures as climate risks intensify. Protecting girls' bodily autonomy must therefore become a measurable objective of climate policy, adaptation planning and climate finance. Girls and young women are not only among those most affected by climate change; they are also critical actors in building resilience and driving solutions. Across their communities, they serve as peer educators, gather and share local knowledge that can inform early warning and preparedness, advocate for their rights, and contribute to household and community decision-making.

The evidence consistently shows that when girls and young women are empowered with education, resources, information and leadership opportunities, they strengthen community resilience and improve adaptation outcomes. The recommendations that follow are directed at governments, donors and civil society. They are designed not only to protect girls' rights, health and futures, but also to recognise, resource and support their role as leaders, innovators and partners in climate action and sustainable development.

10.1 All actors

Climate change is eroding girls' bodily autonomy and agency over their health and futures. Defending these rights belongs at the centre of climate advocacy. Against that backdrop, every actor below should:

- Design and target responses for the girls most at risk – adolescent girls from minority and Indigenous groups, girls with disabilities, displaced and migrating girls, those in remote areas, and married or pregnant girls.
- Avoid gender-neutral, one-size-fits-all responses, and collect disaggregated data so the most affected can be found and reached.

10.2 Governments and policymakers (national)

Embed SRHR in climate and finance planning

- Integrate and cost adolescent girls' sexual and reproductive health and rights within National Adaptation Plans, Health National Adaptation Plans, Nationally Determined Contribution implementation plans, humanitarian response frameworks, and climate strategies. Climate policies should include measurable actions to maintain access to contraception, maternal healthcare, menstrual health, GBV services, and comprehensive sexuality education throughout climate-related disruptions.
- Bring ministries of environment, health and finance together to build health into national finance plans, with a focus on including SRH service continuity as a core adaptation outcome within climate-resilient health systems, and engage adolescent girls and young women in planning and monitoring.
- Establish adaptation targets and indicators that measure how climate action protects adolescent girls' health, rights and wellbeing. National adaptation monitoring systems should track outcomes including continuity of SRH services, contraceptive availability, access to menstrual health supplies, adolescent school retention, child marriage rates, and girls' participation in adaptation decision-making.
- Recognise girls' continued education as a climate adaptation outcome. Adaptation investments should support safe and resilient schools, continuity of learning during climate-related disruptions, and re-entry pathways for girls most at risk of exclusion following climate shocks.

Deliver SRHR information and services

- Ensure comprehensive sexuality education (CSE) for all girls and young women, both in and out of school. In times of crisis, ensure comprehensive sexuality education is included in online and offline distance-learning measures, including information on how to access SRH services.
- Increase equitable access to climate-informed, adolescent-friendly SRH services (including a full range of modern contraceptive options and emergency contraception) for girls and young women in all their diversity. These services should be age- and gender-responsive, rights-based, and provided free of discrimination, stigma and coercion, with respect for privacy and

confidentiality, in accordance with the evolving capacities of the person, and free of any requirement for parental, guardian, spousal or judicial consent.

- Make menstrual health supplies and private, safe facilities a standard part of health policy, health standards and Health National Adaptation Plans, not an afterthought.
- Train frontline health workers to provide and adapt SRH services throughout climate-related disruptions, including ongoing provision of menstrual products, contraceptives, maternal health supplies, emergency contraception, and post-exposure prophylaxis in cases of sexual violence.
- Require SRH services to maintain disaster risk reduction and preparedness plans so the health workforce can prepare for, respond to and recover from climate-related events, sustaining last-mile delivery of contraceptives and maternal healthcare through remote, telehealth and mobile channels during emergencies.

Keep girls learning to claim their sexual and reproductive health and rights

- Recognise the interrupted education of girls as an adaptation strategy and outcome and fund climate-resilient education systems accordingly to keep girls learning through climate shocks, in line with the Comprehensive School Safety Framework (CSSF) 2022-2030.^{xxx} These investments should span all three pillars of the CSSF (safer learning facilities; school safety/educational continuity management; and risk reduction/resilience education). A particular focus should be given to ensuring re-entry for pregnant girls and young mothers, and retention of girls at greatest climate risk. Investments should also strengthen the education system by training and supporting teachers and embedding curricula that address the specific barriers girls face.
- Deliver comprehensive sexuality education both in and out of school, and put continuation and re-entry policies in place so that pregnant girls, young mothers and girls who are married or in unions can stay in school and finish their education. Comprehensive sexuality education should be scientifically accurate, rights-based, gender-transformative, inclusive and adapted to learners' evolving capacities. It should continue during and after climate-related crises, including through online and offline distance learning that carries information on how to access SRH services, using simple, accessible language and formats.
- Run accelerated catch-up classes so girls who miss school during a disaster can re-enter at the right level, and hold local authorities responsible for actively tracking and re-enrolling girls who drop out after a shock.
- Integrate climate change, disaster risk reduction and environmental sustainability into curricula and CSE programmes under Pillar 3 of the CSSF (risk reduction and resilience education), in line with the Greening Education Partnership and the Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector (GADRRRES).^{xxxi} Education systems should equip adolescent girls and young people with the knowledge and skills to understand how climate-related risks affect health, bodily autonomy, protection and wellbeing, while building their capacity to act as informed leaders in climate adaptation and resilience efforts.
- Increase grant-based, gender-responsive adaptation finance for education systems, with dedicated funding for climate-resilient schools, social protection, safe transportation, menstrual health and hygiene, as well as targeted support for at-risk adolescent girls, ensuring that climate shocks do not force girls out of education and that reducing girls' dropout rates becomes a measurable outcome of climate finance investments.

Break the economic drivers of SRHR harm

- Use adaptive social protection and cash transfers as a climate adaptation tool to prevent climate-driven SRHR harms and minimise maladaptation outcomes resulting in child marriage, unintended pregnancy, school dropout, exploitative sex, and other negative coping mechanisms. These approaches should be in place to reach households before a climate shock so that families are not pushed into marrying girls early or taking them out of school as a coping strategy.

^{xxx} The Comprehensive School Safety Framework (CSSF) 2022-2030 was developed by the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES) and sets out an all-hazards approach to protecting learners and education systems, structured around three pillars: safer learning facilities; school safety and educational continuity management; and risk reduction and resilience education.

^{xxxi} The Greening Education Partnership, launched by UNESCO at the 2022 Transforming Education Summit, is a global coalition of governments and partner organisations working to green school infrastructure, curricula, teacher training and communities in response to the climate crisis.

- Reduce the debt burdens carried by low- and middle-income countries, recognising how austerity and debt deepen both gender inequality and the impacts of climate change. Measures can include debt relief, debt swaps (in specific cases), and reforms to the international financial system.
- Expand climate finance investments in girls' and young women's economic empowerment, including climate-smart skills training, green entrepreneurship, decent work pathways and access to financial services, to reduce poverty-driven risks such as school dropout, child marriage, and negative coping strategies that undermine girls' health, education and resilience.
- Establish dedicated climate financing windows for integrated education, health and social protection programmes that improve access to comprehensive SRH information and services, cash transfers, and livelihood support, addressing the economic barriers that contribute to poor SRH outcomes and limit girls' ability to adapt to climate shocks.

Centre girl-led information and leadership

- Institutionalise adolescent girls' participation in climate adaptation planning, implementation and accountability by funding girl-led mechanisms that monitor climate impacts, identify SRHR service disruptions, participate in adaptation planning and influence climate finance decisions.
- Establish formal mechanisms for adolescent girls and young women to participate in the design, implementation and monitoring of National Adaptation Plans, local climate adaptation strategies, disaster preparedness plans and climate finance investments.
- Support girl-led monitoring and accountability mechanisms that track disruptions to education, SRHR services, menstrual health supplies, protection services, and safety before, during and after climate-related crises.
- Train girls to collect early-warning information and recognise them as peer educators in their communities.
- Integrate gender equality and inclusion considerations into climate early-warning systems, ensuring that risk assessments, preparedness measures and anticipatory action identify and address the specific barriers that climate shocks create for girls' education, including school disruption, increased care burdens, displacement, child marriage and unions, and school dropout.
- Create safe, accessible communication channels that remain operational when services are disrupted.

10.3 Donors, institutional and multilateral partners

- Recognise adolescent girls' sexual and reproductive health and rights as a legitimate adaptation and resilience investment and establish dedicated financing windows within climate funds for climate-resilient SRHR systems. This should include specific support for continuity of SRHR services during climate shocks, resilient health infrastructure, last-mile delivery systems, adolescent-focused anticipatory action, and locally led and girl-led adaptation initiatives.
- Invest in climate-resilient health systems that can maintain access to adolescent-responsive SRHR services during climate hazards and displacement. Financing should prioritise resilient infrastructure, workforce preparedness, supply-chain continuity, community outreach, and last-mile service delivery in climate-vulnerable settings.
- Embed adolescent girls' sexual and reproductive health and rights into anticipatory action frameworks and forecast-based financing systems, including guidance on where SRH supplies should be pre-positioned, when mobile outreach should be activated, how vulnerable girls should be identified and reached, and how cash assistance should be deployed to reduce harmful coping strategies such as child marriage and school withdrawal.
- Prioritise flexible multi-year financing for locally led and girl-led climate adaptation initiatives in climate-stressed settings that protect adolescent girls' rights, health and agency during climate shocks, moving beyond consultation to directly resource adolescent girls as adaptation actors.
- Direct a meaningful share of adaptation finance to local and girl-led organisations that are best positioned to identify emerging climate risks, reach the most marginalised girls, and deliver locally led adaptation solutions. Funding should be flexible, multi-year, and accessible to community-based actors.
- Update and strengthen existing climate-resilient health system guidance and standards to explicitly integrate adolescent sexual and reproductive health and rights, ensuring continuity of SRH services during climate shocks, displacement and humanitarian emergencies. This should

be accompanied by regional collaboration between health and environment ministries to strengthen the climate-health evidence base and inform policy and practice.

10.4 Civil society and NGOs

- Strengthen community-level evidence, accountability and advocacy by documenting the gendered impacts of climate change, elevating girls' voices in policy processes, and using disaggregated data to influence climate, education, health and adaptation policies and investments.
- Hold governments and public institutions accountable for delivering climate, education, health and social protection commitments by tracking progress, publishing evidence on implementation gaps, and advocating for equitable investment in the services that girls rely on before, during and after climate shocks.
- Amplify community voices and knowledge in climate decision-making by creating platforms for girls, youth, women-led organisations, Indigenous communities and other marginalised groups to shape policies, adaptation priorities and climate finance investments that affect their lives.
- Monitor the accessibility, quality and continuity of essential services, including education and SRHR services, during climate-related emergencies, and use community-generated evidence to advocate for responsive, inclusive and accountable public service delivery.
- Resource and fund local and girl-led organisations directly and flexibly, recognising that the support girls and young women found most useful was designed and delivered locally, and that these are the actors who stay when access is cut off and services close.
- Recognise and counter the growing influence of anti-rights movements and anti-gender actors in climate spaces, and defend the civic space for girls' and women's organising so that girls' rights are not traded away where the SRHR and climate agendas meet.

10.5 Educators and protection services

- Educators: at the point of delivery, help girls interpret how climate events affect their bodies, autonomy, safety and futures, and connect them to the SRH information and services they are entitled to, adapting delivery so it continues through climate-related disruption.
- Protection services: ensure emergency shelters and other response sites deliver the Minimum Initial Service Package (MISP) for Reproductive Health in Emergencies, including safe, private and well-lit spaces for girls and women, staffed referral pathways to sexual and reproductive health, GBV and mental health support, and provision for unaccompanied and separated girls.

10.6 Families and caregivers

- Support work that changes mindsets and shifts attitudes towards how girls are valued, so that marrying a daughter is not treated as a way to cope when times get hard.
- Deliver cash transfers and adaptive social protection to caregivers ahead of climate shocks so that households are not pushed to marry girls early or withdraw them from school as a coping strategy.
- Engage parents, male caregivers and extended families, including fathers and brothers, in dialogue that builds support for girls' education, delayed marriage and access to SRH services.
- Equip caregivers with accurate SRHR and menstrual health information so they can support girls' access to services and help girls stay in school through and after a crisis.
- Strengthen household economic resilience through livelihood and climate-smart skills support to caregivers, reducing the poverty-driven pressures that lead to early marriage and school dropout.

Annexes:

Annex 1: Historical data analysis – descriptive statistics tables

Table 22: Effect of flood exposure on first union before age 18, with demographic and socioeconomic controls

	Under-18 union, last 1 year	Under-18 union, last 2 years	Under-18 union, last 3 years	Under-18 union, last 5 years
Flood exposure, 1 year				

	-0.002 (0.002)			
Flood exposure, 2 years		-0.001 (0.003)		
Flood exposure, 3 years			-0.000 (0.003)	
Flood exposure, 5 years				-0.005 (0.003)
Rural (vs urban)	0.021*** (0.002)	0.037*** (0.003)	0.048*** (0.003)	0.066*** (0.003)
Women's average years of education	-0.001 (0.001)	-0.001 (0.002)	-0.003 (0.002)	-0.005** (0.002)
Women's average age	0.005*** (0.001)	0.009*** (0.002)	0.009*** (0.002)	0.011*** (0.002)
Household wealth	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.001* (0.000)
Subnational fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Countries / regions	52/318	52/318	52/318	52/318
R-squared	0.51	0.65	0.71	0.78
N	2,406	2,415	2,421	2,424

The dependent variable is the proportion of respondents who entered a first union before age 18 during the stated window. The denominator comprises adolescent girls and young women aged 15-18 at 1 year through 15-22 at 5 years. Each column is a separate fixed-effects regression; the exposure window is matched to the outcome window (any flood event in the past 1, 2, 3, or 5 years). * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 23: Effect of storm exposure on first union before age 18, with demographic and socioeconomic controls

	Under-18 union, last 1 year	Under-18 union, last 2 years	Under-18 union, last 3 years	Under-18 union, last 5 years
Storm exposure, 1 year	0.001 (0.004)			
Storm exposure, 2 years		-0.000 (0.005)		
Storm exposure, 3 years			0.001 (0.006)	
Storm exposure, 5 years				0.004 (0.005)
Rural (vs urban)	0.021*** (0.002)	0.037*** (0.003)	0.048*** (0.003)	0.066*** (0.003)
Women's average years of education	-0.001 (0.001)	-0.001 (0.002)	-0.003 (0.002)	-0.005** (0.002)
Women's average age	0.005*** (0.001)	0.009*** (0.002)	0.009*** (0.002)	0.011*** (0.002)
Household wealth	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.001* (0.000)

Subnational fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Countries / regions	52/318	52/318	52/318	52/318
R-squared	0.51	0.65	0.71	0.78
N	2,406	2,415	2,421	2,424

The dependent variable is the proportion of girls and women who entered a first union before age 18 during the stated window. The denominator comprises adolescent girls and young women aged 15-18 at 1 year through 15-22 at 5 years. Each column is a separate fixed-effects regression. The exposure window is matched to the outcome window (any storm event in the past 1, 2, 3, 4 or 5 years).. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 24: Effect of drought exposure on past-12-month partner violence (girls and women aged 15-24, with demographic and socioeconomic controls)

	Physical partner violence			Sexual partner violence			Physical and/or sexual		
	M1	M2	M3	M4	M5	M6	M7	M8	M9
Drought (SPEI < -1)	-0.006 (0.030)			-0.005 (0.025)			-0.006 (0.030)		
Drought (SPEI < -1.5)		0.012 (0.034)			-0.028 (0.029)			-0.002 (0.037)	
Drought (SPEI < -2)			-0.044 (0.049)			-0.069* (0.041)			-0.059 (0.052)
Rural (vs urban)	-0.007 (0.006)	-0.007 (0.006)	-0.007 (0.006)	-0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)
Women's average years of education	0.059*** (0.015)	-0.059*** (0.015)	0.060*** (0.016)	0.028*** (0.010)	0.028*** (0.010)	0.030*** (0.010)	0.061*** (0.016)	0.061*** (0.016)	0.062*** (0.016)
Women's average age	-0.004 (0.004)	-0.004 (0.004)	-0.004 (0.004)	0.000 (0.002)	0.000 (0.002)	0.000 (0.002)	-0.005 (0.004)	-0.006 (0.004)	-0.005 (0.004)
Household wealth	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	-0.003 (0.002)	-0.003 (0.002)	-0.003 (0.002)
Subnational fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries / regions	38/326	38/326	38/326	38/323	38/323	38/323	38/326	38/326	38/326
R-squared	0.73	0.73	0.73	0.61	0.61	0.61	0.75	0.75	0.75
N	1,137	1,137	1,137	1,129	1,129	1,129	1,137	1,137	1,137

Each column is a separate fixed-effects regression. Dependent variables are subnational-stratum-year proportions (0-1) among adolescent girls and young women aged 15-24, capturing the share who experienced partner violence in the past year. Drought exposure is measured as the share of months in the past year with SPEI-3 below three severity thresholds (-1, -1.5, -2); each is entered as a separate regression. . * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 25: Effect of flood exposure on past-12-month partner violence (girls and women aged 15-24, with demographic and socioeconomic controls)

	Physical partner violence		Sexual partner violence		Physical and/or sexual	
	M1	M2	M3	M4	M5	M6
Flood exposure	-0.009 (0.013)		-0.006 (0.009)		-0.016 (0.015)	
Flood count				-0.007 (0.007)		-0.018 (0.012)

		-0.012 (0.011)				
Rural (vs urban)	0.000 (0.006)	0.000 (0.006)	0.002 (0.006)	0.002 (0.006)	0.002 (0.007)	0.003 (0.007)
Women's average years of education	-0.060*** (0.017)	-0.060*** (0.017)	-0.028** (0.011)	-0.027** (0.011)	-0.061*** (0.018)	-0.060*** (0.018)
Women's average age	-0.008* (0.005)	-0.009* (0.005)	-0.002 (0.003)	-0.002 (0.003)	-0.011** (0.005)	-0.011** (0.005)
Household wealth	0.002 (0.002)	0.002 (0.002)	0.000 (0.002)	0.000 (0.002)	0.001 (0.003)	0.001 (0.003)
Subnational fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Countries / regions	38/226	38/226	38/226	38/226	38/226	38/226
R-squared	0.73	0.73	0.60	0.60	0.76	0.76
N	810	810	802	802	810	810

Each column corresponds to a separate fixed-effects regression. Dependent variables are subnational-stratum-year proportions (0-1) among adolescent girls and young women aged 15-24, capturing the share who experienced partner violence in the past year. Flood exposure is a binary indicator for any flood event in the past year; the count specification replaces it with the number of flood events recorded for the region in that survey year. Each measure is entered in a separate regression. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 26: Effect of storm exposure on past-12-month partner violence (girls and women aged 15-24, with demographic and socioeconomic controls)

	Physical partner violence		Sexual partner violence		Physical and/or sexual	
	M1	M2	M3	M4	M5	M6
Storm exposure	-0.015 (0.015)		0.012 (0.012)		-0.013 (0.020)	
Storm count		0.003 (0.009)		0.012 (0.008)		0.006 (0.012)
Rural (vs urban)	0.000 (0.006)	0.000 (0.006)	0.002 (0.006)	0.002 (0.006)	0.002 (0.007)	0.002 (0.007)
Women's average years of education	-0.060*** (0.018)	-0.061*** (0.018)	-0.029*** (0.011)	-0.030*** (0.011)	-0.061*** (0.018)	-0.063*** (0.018)
Women's average age	-0.008* (0.005)	-0.008* (0.005)	-0.002 (0.003)	-0.002 (0.003)	-0.011** (0.005)	-0.011** (0.005)
Household wealth	0.002 (0.002)	0.002 (0.002)	0.000 (0.002)	0.000 (0.002)	0.001 (0.003)	0.001 (0.003)
Subnational fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Countries / regions	38/226	38/226	38/226	38/226	38/226	38/226
R-squared	0.73	0.73	0.60	0.60	0.76	0.76
N	810	810	802	802	810	810

Each column corresponds to a separate fixed-effects regression. Dependent variables are subnational-stratum-year proportions (0-1) among adolescent girls and young women aged 15-24, capturing the share who experienced partner violence in the past year. Storm exposure is a binary indicator for any storm event in the past year. The count specification replaces it with the number of storm events recorded for the region in that survey year.

survey year. Each measure is entered in a separate regression. All specifications include subnational and year fixed effect. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Annex 2: Survey locations

Table 27: Bangladesh survey completion rate by location

Location	Total	
	Count	%
Barisal	107	11%
Chittagong	137	14%
Dhaka	147	15%
Khulna	141	14%
Mymensingh	116	12%
Rajshahi	69	7%
Rangpur	147	15%
Sylhet	136	14%
Total	1,000	100%

Table 28: Kenya survey completion rate by location

Location	Total	
	Count	%
Baringo	39	4%
Elgeyo-Marakwet	46	5%
Garissa	6	1%
Isiolo	17	2%
Kajiado	53	5%
Kiambu	102	10%
Kilifi	82	8%
Kirinyaga	32	3%
Kisumu	81	8%
Kitui	64	6%
Kwale	62	6%
Mandera	1	0%
Marsabit	3	0%
Meru	69	7%
Murang'a	54	5%
Nairobi	214	21%
Samburu	15	2%

Tana River	16	2%
Turkana	19	2%
Wajir	2	0%
West Pokot	23	2%
Total	1,000	100%

Table 29: Peru survey completion rate by location

Location	Total	
	Count	%
Amazonas	20	2%
Ancash	58	6%
Apurimac	10	1%
Arequipa	71	7%
Ayacucho	28	3%
Cajamarca	68	7%
Callao	16	2%
Cusco	23	2%
Huancavelica	18	2%
Huanuco	13	1%
Ica	63	6%
Junin	55	6%
La Libertad	92	9%
Lambayeque	72	7%
Lima	135	14%
Loreto	16	2%
Madre de Dios	0	0%
Moquegua	10	1%
Pasco	10	1%
Piura	130	13%
Puno	11	1%
San Martin	14	1%
Tacna	26	3%
Tumbes	32	3%
Ucayali	9	1%
Total	1,000	100%

Table 30: Senegal survey completion rate by location

Location	Total	
	Count	%
Matam	279	28%
Saint Louis	250	25%
Tambacounda	117	12%
Dakar	267	27%
Kaolack	58	6%
Kolda	29	3%
Total	1,000	100%

Table 31: Zimbabwe survey completion rate by location

Location	Total	
	Count	%
Manicaland	268	27%
Mashonaland Central	76	8%
Mashonaland East	177	18%
Mashonaland West	179	18%
Masvingo	214	21%
Matabeleland North	86	9%
Total	1,000	100%

Annex 3: Thematic detail of interview questionnaire

Understanding environmental changes: To explore how girls and young women personally perceive and experience climate-related environmental shifts in their communities, and how these changes affect their daily lives, livelihoods and wellbeing.

Contraception access: To examine how climate events and environmental stressors affect girls' and young women's ability to access contraception, including disruptions to supply chains, health facilities, and the financial and social barriers that may be exacerbated by climate shocks.

Unintended pregnancies and pregnancy complications: To understand the relationship between climate-related stressors and rates of unintended pregnancy, exploring how disruptions to services, displacement and household instability contribute to reproductive health outcomes.

Safety, relationships and gender-based violence: To investigate how climate events influence power dynamics within relationships and households, and whether environmental stressors increase girls' exposure to gender-based violence, coercion or exploitation.

Child marriage and early unions: To explore the drivers and circumstances under which climate shocks accelerate decisions around child marriage and early unions, including economic pressures, displacement and shifting family coping strategies.

Coping and solutions: To identify the strategies girls, families and communities employ to manage climate-related hardship, and to capture girls' own ideas and recommendations for addressing the intersection of climate change and their reproductive health and rights.

Focus Group Topics:

SRHR services and contraception access: To facilitate group discussion around shared experiences of accessing sexual and reproductive health and rights services during and after climate events, identifying common barriers and enablers at the community level.

Unintended pregnancies: To explore community-level awareness, attitudes and experiences around unintended pregnancy in the context of climate stress, and the social norms and pressures that shape reproductive decision-making.

Safety and gender-based violence: To generate collective discussion on how climate-related displacement, economic hardship and disruption increase risks of gender-based violence, and how communities perceive and respond to these risks.

Child marriage and early unions: To examine community norms, attitudes and observed trends around child marriage in climate-affected contexts, and the social and economic rationale communities attach to child marriage and unions during periods of hardship.

Community-led innovations: To identify and document locally driven solutions, adaptations and protective practices that communities have developed in response to the intersecting challenges of climate change and girls' reproductive health and safety.

Prioritisation exercise: To invite participants to collectively rank and discuss the issues they consider most urgent and impactful, ensuring the research reflects the girls' and young women's priorities.

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