

# The impact of the CLIMATE CRISIS on sexual and reproductive health and rights



The climate crisis impacts sexual and reproductive health and the ability to realize fundamental human rights. Realizing sexual and reproductive health and rights (SRHR) contributes to reducing inequalities and increases individuals and communities' resilience to climate change to help ensure no one is left behind as climate impacts intensify.

Climate change is a major threat to the vision of human-centred sustainable development as outlined in the International Conference on Population and Development (ICPD) Programme of Action and reinforced by the Nairobi Summit on ICPD25. Climate change is a multiplier of existing health vulnerabilities, including through

insufficient access to safe water and sanitation, food insecurity, and impacts on access to health care and education. Climate-related displacement and livelihood impacts are challenging both the protection and the realization of human rights. We know that realizing SRHR is crucial to achieving gender equality, and it must also, therefore, be a central component of gender-responsive adaptation to climate change.

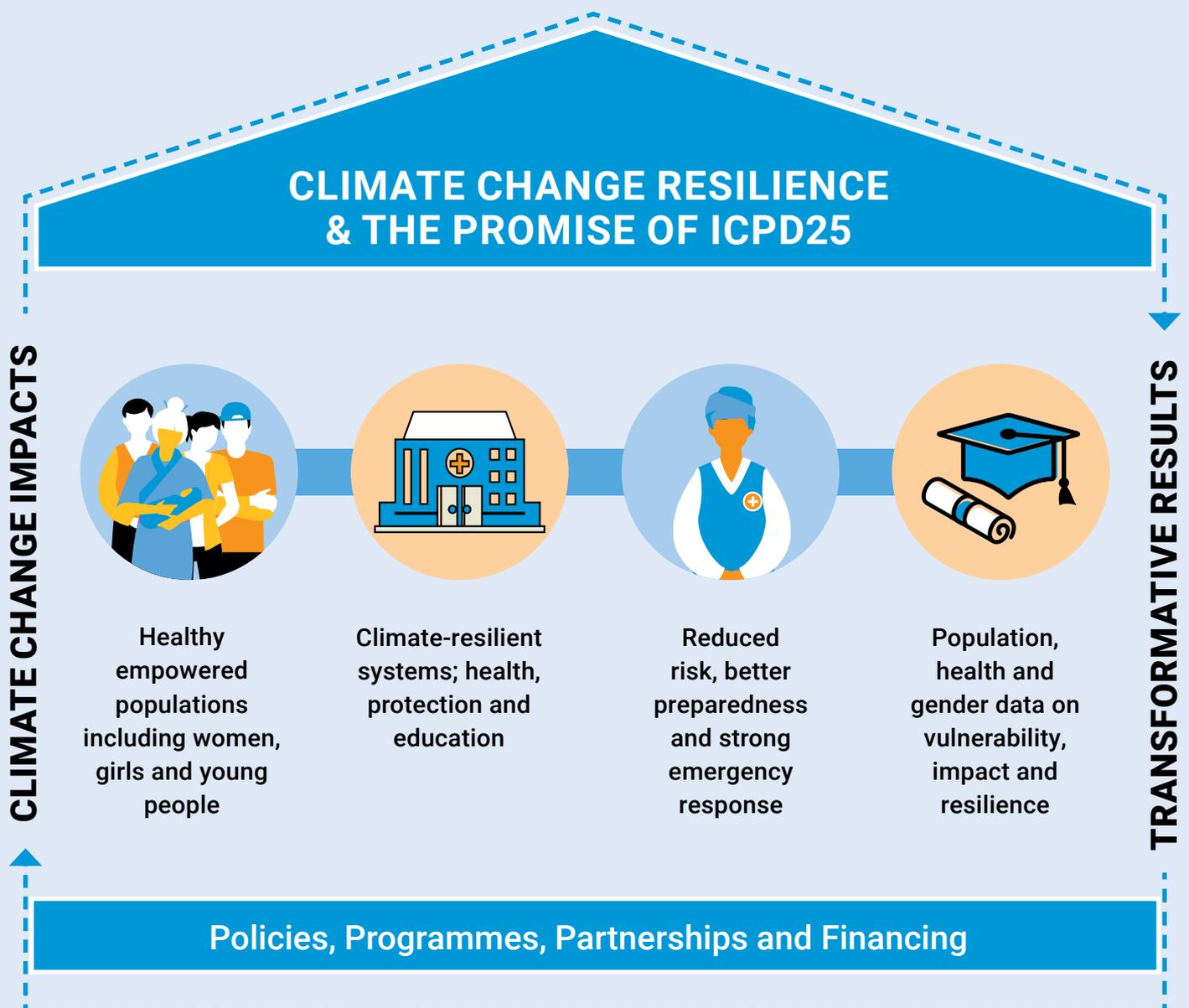
Climate change has direct implications for SRHR. Increases in air pollution and rising temperatures worsen maternal and neonatal health outcomes. An increase of one degree Celsius in the week before delivery corresponds to a six per cent greater likelihood of stillbirth (Kuehn, McCormick et al., 2017; He at al., 2016; Bekkar et al., 2020). Increased poverty and food insecurity driven by climate-related loss of livelihoods is also impacting maternal health as decreased yields impact nutrient intake of the poor through a decrease in the availability and supply of highly nutritious crops (Thompson et al., 2012; Lobell and Burke, 2010; IPCC AR5, 2014).



Recently, the UNFPA launched its [value proposition](#) outlining the programmatic actions on climate change and building staff capacity to integrate climate change components across all areas of work. It puts forward a programmatic framework with four pillars connecting the achievement of climate change adaptation and resilience with the promise of the Programme of Action of the International Conference for Population and Development (ICPD25) (Please see below).

Climate-related emergencies cause major disruptions in access to health services and life-saving commodity supply chains, including contraceptives (Behrman & Weitzman, 2016). Additionally, climate-related loss or change of livelihoods, as well as displacement and migration, increase risks of gender-based violence and harmful practices, including child marriage (Ahmed et al., 2019; McLeod, Barr & Rall, 2019). The Intergovernmental Panel on Climate Change (IPCC) has noted the likelihood that both climate change and gender-blind climate-change interventions could worsen gender inequality (IPCC, 2018). SRHR is required to build adaptive capacity and resilience in responding to climate shocks and impacts.

Sexual and reproductive rights are human rights and are essential in and of themselves, but these rights take on renewed urgency in the face of an unstable and unpredictable environment. A cornerstone of strengthening resilience, SRHR enables people, couples and communities to realize their human rights, make empowered choices that best suit their personal circumstances and protect themselves and their communities from harm.



# THE NEGATIVE IMPACT OF CLIMATE CHANGE ON MATERNAL HEALTH

Climate change directly and indirectly impacts maternal health, making pregnancy less safe and worsening neonatal health outcomes

## DIRECT IMPACT:

Heat worsens maternal and neonatal health outcomes, an increase of one degree Celsius in the week before delivery corresponds with a six per cent greater likelihood of stillbirth (Kuehn and McCormick, 2017; He, Jian Rong et al., 2016)

Global heating impacts the patterns of vector-borne diseases, such as malaria, with negative maternal and child health outcomes such as maternal illness and low birth weight (WHO, 2017)

Climate change worsens global inequity in maternal nutrition (Lancet, 2020)

Air pollution is linked to poor maternal health outcomes such as stillbirth, preterm birth and low birth weight. (Bekkar et al., 2020)

Global heating increases water salinity and drinking salinated water is also linked to poor maternal health outcomes (Khan et al., 2011)

Climate change is also associated with the increased spread of vector-borne diseases (such as malaria, dengue etc), as temperature and precipitation rates affect the survival and spread of these diseases (Campbell-Lendrum, D., et al., 2015)

Significant evidence shows that vector-borne diseases, such as malaria, dengue etc can increase the risk of spontaneous abortion, premature delivery, stillbirth, low-weight births, eclampsia, and cesarean delivery for pregnant women (Asian-Pacific Resource & Research Centre for Women, 2015; Sorensen, C., et al., 2018)

Pregnant women are disproportionately susceptible to mosquito-borne diseases, including Zika virus, dengue, and malaria. This is in part due to their closer proximity to standing water as they spend time and performing domestic tasks, such as cooking and those related to water, sanitation, and hygiene (Selby, D., 2015)

Estimates suggest that approximately 507 women and girls die every day as a result of complications from pregnancy and childbirth in regions affected by conflict, displacement, and natural disasters (UNFPA, 2015)

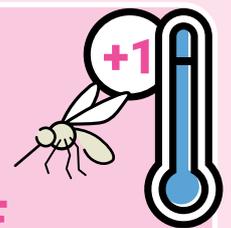
Climate change worsens  
**GLOBAL  
INEQUITY IN  
MATERNAL  
NUTRITION**

(Lancet, 2020)



Global warming impacts the  
**PATTERNS OF  
VECTOR-BORNE  
DISEASES**

, such as malaria, with negative maternal and child health outcomes such as maternal illness and low birth weight (WHO, 2017)



## INDIRECT IMPACT:

Climate-related emergencies cause major disruptions in access to health services and life-saving commodities, including contraception (Behrman & Weitzman, 2016)

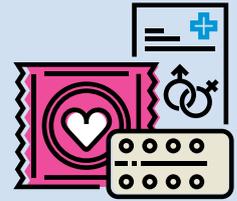
Increased poverty and food insecurity driven by climate-related loss of livelihoods negatively affects maternal health etc (Lancet, 2021)

Similarly, macro- and micronutrient deficiencies caused by food insecurity and undernutrition among pregnant women can affect pregnancy, nursing, and newborn outcomes and lead to low-weight births, miscarriages, and perinatal mortality (Center for Climate Change and Health; Sorensen, C., et al., 2018; Asian-Pacific Resource & Research Centre for Women)

Dehydration during pregnancy can be especially devastating to both mother and child, as it can affect fetal growth, release labour-inducing hormones, cause preterm births, and increases the maternal risk of anaemia and eclampsia (Sorensen, C., et al., 2018)

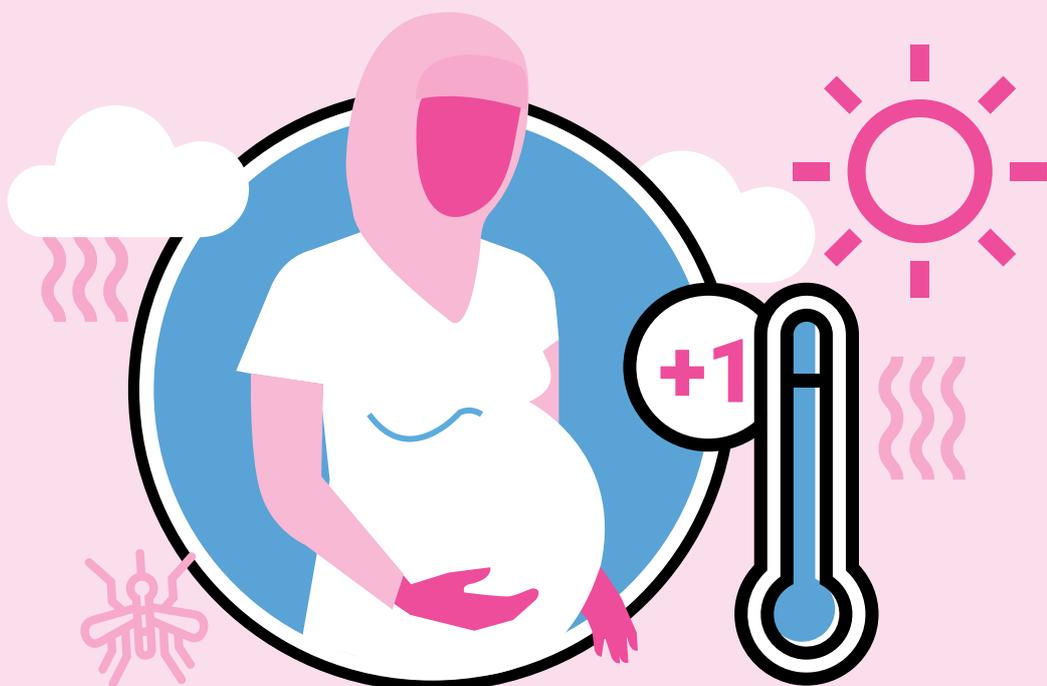
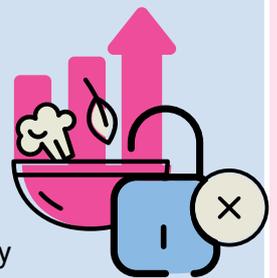
Climate-related emergencies cause **MAJOR DISRUPTIONS IN ACCESS TO HEALTH SERVICES**

and life-saving commodities, including contraception (Behrman & Weitzman, 2016)



**INCREASED POVERTY AND FOOD INSECURITY**

driven by climate-related loss of livelihoods negatively affects maternal health etc (Lancet, 2021)



# GENDER-BASED VIOLENCE

**Climate change creates and exacerbates circumstances conducive to gender-based violence. Climate action must tackle gender-based violence**

## Impact of Climate Change on GBV

Climate Change increases the risk of Violence Against Women (UNFCCC, 2019, etc)

The stress, scarcity and pressure on natural resources brought on by climate change can increase GBV, child, early and forced marriages as well as trafficking - all of which have been seen to increase following disasters and extreme weather events (McLeod, 2019; Mason, 2016)

Pressure on families due to floods, droughts, disasters and other climate impacts can also result in early, forced and child marriage (Leon, 2019; CARE, 2015)

When women and girls need to travel greater distances to gather basic necessities such as water and firewood they can also be at increased risk of physical and sexual violence

Women who are environmental defenders have also been assaulted and killed while defending environmental commons

During a period of drought in Uganda from 2014 to 2018, there was an increase in the rates of domestic violence, sexual abuse, and female genital mutilation (FGM) (Masson, 2019)

The Tanna Women's Counselling Centre reported a 300 per cent increase in new domestic violence cases after two tropical cyclones hit Tafe province in Vanuatu in 2011 (CARE, 2015)

Increasing and protracted crises also contribute to increased barriers for women and girls accessing GBV response services (security, justice, health and social services). It can also decrease income to families where women are reliant upon natural resources for income – this can lead to decreased expenditure on accessing GBV response services



Climate change  
**INCREASES THE RISK OF  
VIOLENCE  
AGAINST  
WOMEN**  
(UNFCCC, 2019, etc)



**GBV, CHILD,  
EARLY AND  
FORCED  
MARRIAGES**, and  
trafficking have been seen to **INCREASE  
FOLLOWING DISASTERS AND EXTREME  
WEATHER EVENTS**  
(McLeod, 2019; Mason, 2016)



# ENVIRONMENTAL CRISES EXACERBATE SOME DRIVERS OF CHILD MARRIAGE

A UNFPA and Queen Mary University of London (QMUL) scoping review on the relationship between climate change and child marriage identified that “Climate change and related environmental crises are exacerbating the drivers of child marriage. Upholding sexual and reproductive health and rights during climate and environmental instability means taking action on child marriage.”<sup>1</sup>

## Impact of Climate Change on Child Marriage

Pressure on families due to floods, droughts, disasters and other climate impacts exacerbate drivers of early, forced and child marriage (Alston et al., 2014; CARE UK, 2015; HRW, 2015; Ahmed et al., 2019; McLeod et al., 2019)

In circumstances where there are not enough resources to support the family, marriages can be seen as a way to reduce financial pressures and secure resources for the family or the child (HRW, 2015; Ahmed et al., 2019; Tsaneva, 2020)

Actual or threatened sexual violence in post-disaster settings is linked to early, forced and child marriage, with marriage used by families to protect their child and their family honour (Alston et al., 2014; HRW, 2015; Ahmed et al., 2019)

Disruption of education due to climate-related disasters is linked to increases in child marriage (HRW, 2015; Ahmed et al., 2019)

Early and child marriage is sometimes linked with female genital mutilation and other harmful practices (Karumbi et al., 2017)

In Nepal and Bangladesh, research found that young girls may be pulled out of school and into a marriage to alleviate financial hardship caused by extreme weather events (Mian & Namasivayam, 2018)

Four million girls in low- and lower-middle income countries will be prevented from completing their education because of climate-related events (Malala Fund, 2021)

In Malawi, it is estimated that 1.5 million girls are at risk of becoming child brides due to the impacts of extreme weather events caused by climate change, making it harder for families to afford to feed and house their own children (Chamberlain, G., 2017)

### 4 MILLION GIRLS

in low and lower-middle-income countries **WILL BE PREVENTED FROM COMPLETING THEIR EDUCATION** because of climate-related events (Malala Fund, 2021)



Disruption of education due to **CLIMATE-RELATED DISASTERS** is linked to increases in **CHILD MARRIAGE**

(HRW, 2015; Ahmed et al., 2019)



<sup>1</sup> What is the Current Evidence for the Relationship between the Climate and Environmental Crisis and Child Marriage? A Scoping Review. Daniel Pope, Heather McMullen, Angela Baschieri, Anandita Philipose, Chiagozie Udeh, Julie Diallo, David McCoy. (See briefing note and forthcoming academic paper).

# RESPONDING TO CLIMATE CHANGE REQUIRES HEALTH SYSTEM STRENGTHENING INCLUDING FOR SRHR SERVICES, SUPPLIES AND GBV RESPONSES

Extreme weather events – including storms, floods, and wildfires – can cause physical damage to health facilities and infrastructure, causing cut offs in medical supply chains and result in the loss of medical records (Benjamin, G. 2016; Health Care Without Harm, 2018; WHO 2018; IPCC, 2018) <sup>2, 3, 4, 5</sup>

When health facilities and supply chains are compromised, there is a direct and immediate negative impact on access to and quality of SRH services, such as post-exposure prophylaxis for HIV, HIV treatment, emergency contraception and safe abortion services (CDC, 2019; Onyango and Heidari, 2017)

In the Philippines, Typhoon Haiyan destroyed many health facilities in 2013, which left pregnant women without access to antenatal care for a month, with many women having to walk longer distances to regain access to services (Sato, et al., 2016)

Due to prejudice and marginalization, LGBTQIA+ people can often be excluded from disaster management. For example, in the aftermath of the floods in the Sindh province of Pakistan over various years, it was reported that transgender people were not allowed to enter relief camps because people were not comfortable sharing the space with them (Asian-Pacific Resource & Research Centre for Women, 2017)

For displaced girls and women in humanitarian settings, lack of access to SRH services is the leading cause of death (International Peace Institute, 2018)

Globally, it is estimated that 26 million girls and women of reproductive age are living in humanitarian settings and face threats to their SRHR (Onyango, M. et al., 2017; UNFPA, 2015)

For displaced girls and women in **HUMANITARIAN**

**SETTINGS, LACK OF ACCESS TO SRH SERVICES IS THE LEADING CAUSE OF DEATH** (International Peace Institute, 2018)



Globally, it is estimated that **26 MILLION** **GIRLS AND WOMEN** of reproductive age are living in **HUMANITARIAN SETTINGS AND FACE**

**THREATS TO THEIR SRHR** (Onyango, M. et al, 2017; UNFPA, 2015)



2 Benjamin, G. (2016). Shelter in the Storm: Health Care Systems and Climate Change. The Milbank Quarterly 94, no. 1: 18–22. [www.jstor.org/stable/24869148](http://www.jstor.org/stable/24869148) (accessed June 28, 2020).

3 Health Care Without Harm. Safe haven in the storm: Protecting lives and margins with climate-smart health care. Reston, VA: Health Care Without Harm, (2018). <https://noharm-uscanada.org/sites/default/files/documents/files/5146/Safe%20Haven.pdf>.

4 WHO Fact Sheet. (2018). <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

5 IPCC. (2018). Changes in impacts of climate extremes: human systems and ecosystems. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 231-290. <https://www.ipcc.ch/report/managing-the-risks-of-extreme-events-and-disasters-to-advance-climate-change-adaptation/changes-in-impacts-of-climate-extremes-human-systems-and-ecosystems/>

# BODILY AUTONOMY AND ACCESS TO FAMILY PLANNING ARE ESSENTIAL FOR RESPONDING TO CLIMATE CHANGE

Access to voluntary, rights-based family planning is fundamental to achieving sexual and reproductive health and rights. The climate crisis increases vulnerability and disrupts access to essential health services. Ensuring access to high quality, right-based family planning services is essential at all times but also for responding and adapting to climate change

## Impact of Climate Change on Family Planning

Climate-related emergencies cause major disruptions in access to [life-saving commodities](#) including contraception ([various sources of evidence](#))

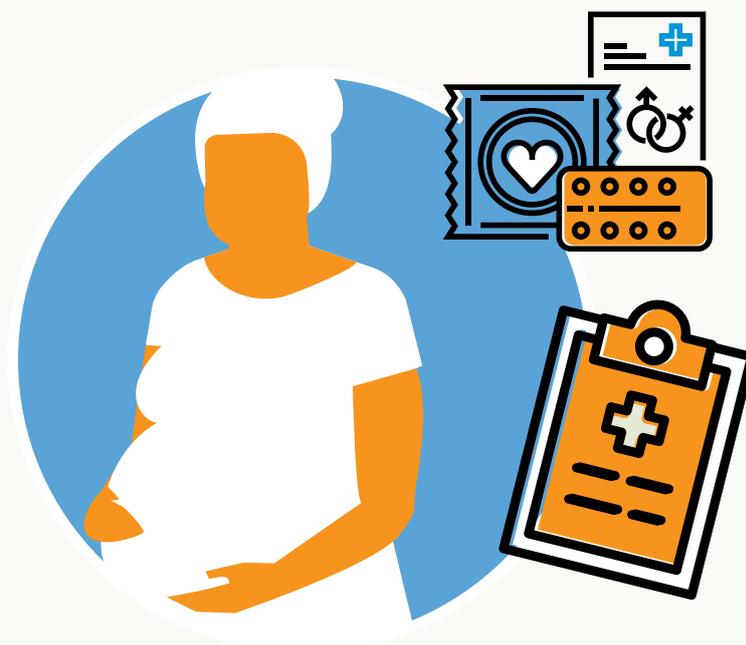
Access to family planning enables couples to make decisions that best reflect their personal circumstances and is a fundamental aspect of SRHR

Unsafe abortion is the cause of at least nine per cent of maternal deaths worldwide. The literature suggests that this rate is likely to be much higher in emergency settings ([Chukwumalu, K., et al., 2017](#))

The El Niño-induced drought has limited water supply for personal hygiene and supply of the traditionally used absorbent plant for menstrual blood for girls and women in Mozambique ([Care International, 2016](#))

### ACCESS TO FAMILY PLANNING

enables couples to **MAKE DECISIONS THAT BEST REFLECT THEIR PERSONAL CIRCUMSTANCES** and is a fundamental aspect of SRHR



## POPULATION AND CLIMATE CHANGE

Population growth, especially in countries with the least resources and where fertility rates are the highest, is often incorrectly viewed as a primary driver of climate change. This assumption must be treated with the scepticism it deserves. In fact, the major driver of climate change is the emission of greenhouse gases, and the wealthiest countries with the lowest levels of fertility produce the highest emission levels.

Climate change, as well as broader environmental degradation, poses a threat to the livelihoods and well-being of all societies and individuals. Yet the impacts of climate change – both acute and long-term – are likely to be worse for the poor and marginalized, who have contributed little to greenhouse gas emissions and at the same time lack the resources and societal support to adapt effectively to current and future changes.

It is critical that we get smart about the relationship between population and climate change to make the best policy choices and avoid the pitfalls of the past.

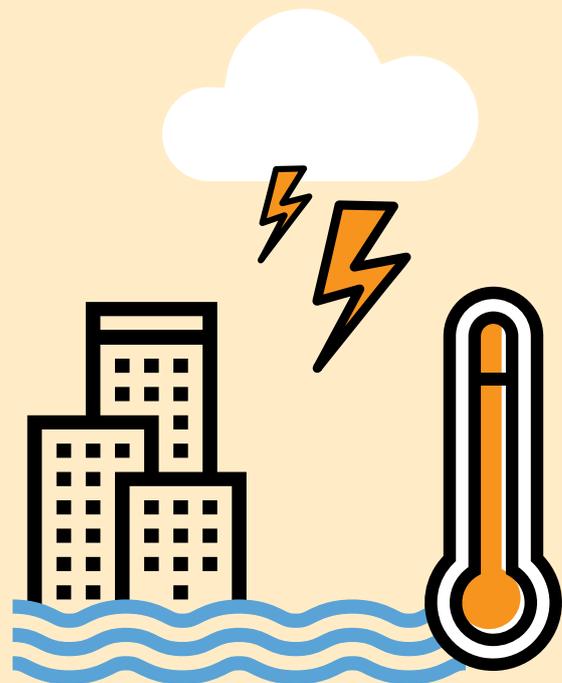
The ICPD Programme of Action reflects a remarkable consensus among diverse countries that increasing access to health and education, and greater human rights for women, including their reproductive health and rights, would ultimately secure a better social and economic future, and also lead to lower population growth, than efforts targeted at controlling births. The evidence overwhelmingly supports the accuracy of that consensus.

Centring population growth as a driver of climate change can place an emphasis on the bodies of women in the Global South, where population growth is occurring. This can facilitate approaches to family planning that do not represent the full scope of sexual and reproductive health and rights, and can result in reproductive injustices. Family planning is not a solution to climate change and a focus on population growth can distract from the true drivers of the climate crisis. This shifts focus from those responsible for the crisis onto populations that are already suffering the worst impacts. A human rights-based approach to integrating SRHR and climate change takes into account the problematic manner in which demography has been used to justify human rights abuses in the past and the present, and it promotes solutions that are accurate and likely to ensure more just outcomes for all. This means decentring population and focusing on the true drivers of the climate crisis.



**“The claim that population growth, especially in the poorest countries, is a primary driver of climate change must be treated with major scepticism. And it should be noted that it is people living in the poorest countries, who have contributed the least to its occurrence, who will likely feel its impact most intensely.”**

**DR. NATALIA KANEM,**  
Executive Director, UNFPA



## RECOMMENDATIONS

- **The climate crisis negatively impacts **SEXUAL AND REPRODUCTIVE HEALTH**** and the ability to realize fundamental human rights.
- Climate change is a **multiplier of existing health vulnerabilities and is a major threat to the vision of human-centred sustainable development**, as outlined in the Programme of Action of the International Conference on Population and Development (ICPD) as well as the 2030 Agenda. Climate change is not gender neutral; it disproportionately affects the most vulnerable **WOMEN AND GIRLS**.
- **GENDER-BASED VIOLENCE (GBV) AND CHILD MARRIAGE** are known to **increase in times of insecurity and increased vulnerabilities**.
- True climate justice is not possible without considering **GENDER EQUALITY** – and true gender equality is only possible when sexual and reproductive health and rights (SRHR) are **fully realized**.



1

Addressing SRHR and climate adaptation linkages relies heavily on a multi-pronged approach that aims to ensure healthy and empowered populations, including women and young people; integration of SRHR in climate-resilient health, protection, and education systems; risk reduction and emergency response, as well as vulnerability assessments and disaggregated data.

#### RECOMMENDATIONS:

- **We need to strengthen **INDIVIDUAL AND COMMUNITY RESILIENCE**** by investing in a healthy, educated and empowered population, and address and fulfil people's sexual and reproductive health and rights.
- **We need to respond** to climate impacts by strengthening **HEALTH SYSTEMS**, including SRHR services, and ensuring stronger protection services for GBV response.
- **We need to ensure **BETTER PREPAREDNESS AND RESPONSE IN EMERGENCIES**** and meet the SRHR needs of those impacted, displaced and at risk of climate crises.
- **We need **STRONGER DATA SYSTEMS FOR CLIMATE VULNERABILITY AND ADAPTIVE CAPACITY****. Climate-related vulnerability assessments and action must be informed by disaggregated population, health and gender data to reflect the multiple and differentiated impacts of the climate crisis, including assessment of the impact on SRHR.

2

Climate change disproportionately affects vulnerable and marginalized individuals and communities, and therefore, an intersectional approach that explicitly considers existing barriers and inequalities is needed to promote the full realization of sexual and reproductive health and rights, with corresponding benefits for climate adaptation and resilience. People who already face barriers to fulfilling their SRHR needs are often disproportionately affected by climate change. Factors related to identity and social position are experienced as overlapping and intersecting drivers of marginalization. An intersectional approach is essential to tackle existing inequalities in SRHR and to maximize the power of SRHR to help build adaptive capacity and resilience to climate change.

#### RECOMMENDATION:

- **WE NEED TO ADDRESS** the underlying patterns of inequality and integrate SRHR in adaptation responses to strengthen resilience to climate change.

3

Gender-based violence (GBV) represents a critical intersection of SRHR and climate change that should be addressed in relevant policy, programming and action. GBV is known to increase during times of insecurity, stress and scarcity, during pandemics and following disasters. Climate change also exacerbates the existing drivers of child marriage, including as a coping mechanism in times of insecurity and due to poverty, or as extreme weather events make it harder for families to feed their children. Adapting to a changing climate must include action on GBV and harmful practices such as child marriage.

**RECOMMENDATION:**

- **CLIMATE ADAPTATION AND RESILIENCE POLICIES**, objectives and financing must support action to end GBV and harmful practices.

4

Young people today are leading climate action and need to be meaningfully engaged in formal climate policy processes. Climate justice means not leaving anyone behind, including young people, especially in front-line communities.

**RECOMMENDATION:**

- **CLIMATE ADAPTATION NEEDS TO ENSURE** meaningful youth engagement in climate policy design and implementation as well as providing financial support to youth innovation on climate change adaptation responses, including aspects related to human rights, gender equality, and sexual and reproductive health.

5

Current levels of climate finance directed towards meeting the needs of women and girls impacted by climate change are extremely low and insufficient. Supporting and empowering women and girls' adaptation and resilience to climate impacts through politically and financially supporting SRHR services, family planning and education will ensure that families and communities can respond better to climate impacts, build resilience and ensure gender and climate justice.

**RECOMMENDATION:**

- Member States should commit to the **50:50 ADAPTATION AND MITIGATION SPLIT** and also commit to spending one per cent of global climate finance (as part of the \$100bn target) per year on women and girls, specifically their SRHR and education needs.

## REFERENCES

- Ahmed K., Atiqul Haq S.M., and Bartiaux F. (2019). The nexus between extreme weather events, sexual violence, and early marriage: a study of vulnerable populations in Bangladesh. *Population and Environment*. Mar 1;40:303–24.
- Alston, M., Whittenbury, K., et al. (2014). Are climate challenges reinforcing child and forced marriage and dowry as adaptation strategies in the context of Bangladesh? *Women's Studies International Forum*. Vol. 47, Part A, 137-144 <https://doi.org/10.1016/j.wsif.2014.08.00> Asian-Pacific Resource & Research Centre for Women, 2015; - 2014?
- Asian-Pacific Resource & Research Centre for Women. (2014). Scoping Study: Identifying opportunities for action on climate change and sexual and reproductive health and rights in Bangladesh, Indonesia, and the Philippines. Kuala Lumpur: Asian-Pacific Resource & Research Centre for Women. [https://arrow.org.my/wp-content/uploads/2015/04/Climate-Change-and-SRHR-Scoping-Study\\_Working-Paper\\_2014.pdf](https://arrow.org.my/wp-content/uploads/2015/04/Climate-Change-and-SRHR-Scoping-Study_Working-Paper_2014.pdf).
- Behrman, J., and Weitzman, A. (2016). DISASTERS and HEALTH - Effects of the 2010 Haiti earthquake on women's reproductive health. *Studies in Family Planning*, 47(1), 3–17
- Bekkar B., Pacheco S., Basu R., and DeNicola N. (2020). AIR POLLUTION AND HEAT. Association of Air Pollution and Heat Exposure With Preterm Birth, Low Birth Weight, and Stillbirth in the US: A Systematic Review. *JAMA Netw Open*. 2020;3(6):e208243. doi:10.1001/jamanetworkopen.2020.8243
- Benjamin, G. (2016). Shelter in the Storm: Health Care Systems and Climate Change. *The Milbank Quarterly* 94, no. 1: 18–22. [www.jstor.org/stable/24869148](http://www.jstor.org/stable/24869148) (accessed June 28, 2020).
- Campbell-Lendrum, D., et al. (2015). Climate change and vector-borne diseases: What are the implications for public health research and policy? *Philosophical Transactions: Biological Sciences* 370, no. 1665 1–8. [www.jstor.org/stable/24504206](http://www.jstor.org/stable/24504206) (accessed June 28, 2020).
- CARE UK. (2015). To Protect Her Honour: child marriage in emergencies, the fatal confusion between protecting girls and sexual violence.
- CARE. (2015). Rapid Gender Analysis Cyclone Pam Vanuatu <https://care.ca/wp-content/uploads/2018/12/RGA-Cyclone-Pam-Vanuatu-7-April-2015.pdf>
- Castañeda Camey, I., Sabater, L., Owren, C., and Boyer, A.E. (2020). Gender-based violence and environment linkages: The violence of inequality. Wen, J. (ed.). Gland, Switzerland: IUCN.
- Center for Climate Change and Health. (2016). Special Focus: Climate Change and Pregnant Women. Center for Climate Change and Health. 2016. <http://climatehealthconnect.org/wp-content/uploads/2016/09/PregnantWomen.pdf>
- Centers for Disease Control and Prevention. "PEP." Centers for Disease Control and Prevention. Last reviewed August 6, 2019. <https://www.cdc.gov/hiv/basics/pep.html>.
- Chamberlain, G. "Why climate change is creating a new generation of child brides." *The Guardian*. November 26, 2017. <https://www.theguardian.com/society/2017/nov/26/climate-change-creating-generation-of-child-brides-in-africa>
- CHILD HEALTH and CLIMATE <https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196%2820%2930274-6/fulltext>
- Chukwumalu, K., et al. (2017). Uptake of postabortion care services and acceptance of postabortion contraception in Puntland, Somalia. *Reproductive Health Matters* 25, no. 51: 48–57. [www.jstor.org/stable/26495951](http://www.jstor.org/stable/26495951)
- Debarre, A. (2018). Hard to Reach: Providing Healthcare in Armed Conflict. International Peace Institute. [https://www.ipinst.org/wp-content/uploads/2018/12/1812\\_Hard-to-Reach.pdf](https://www.ipinst.org/wp-content/uploads/2018/12/1812_Hard-to-Reach.pdf).
- Fischer, A. (2016). "Hope Dries up? Women and Girls Coping with Drought and Climate Change in Mozambique." *Care International*. [https://doi.org/10.1163/9789004322714\\_cclc\\_2016-0134-006](https://doi.org/10.1163/9789004322714_cclc_2016-0134-006).
- Global Gender and Climate Alliance. (2016). Gender and Climate Change: a closer look at existing evidence, Available at: <https://wedo.org/gender-and-climate-change-a-closer-look-at-existing-evidence-ggca/>
- Global Witness. (2020). Defending Tomorrow: The Climate Crisis and Threats Against Land and Environmental Defenders. Available at: <https://www.globalwitness.org/en/campaigns/environmental-activists/defending-tomorrow/>.
- Health Care Without Harm. Safe haven in the storm: Protecting lives and margins with climate-smart health care. Reston, VA: Health Care Without Harm. <https://noharm-uscanada.org/documents/safe-haven-storm-protecting-lives-and-margins-climate-smart-health-care#:~:text=Advisory%20Services%20LLC.,Safe%20haven%20in%20the%20storm%3A%20Protecting%20lives%20and%20margins%20with,or%20break%20a%20health%20system.>
- He, Jian-Rong et al. (2016). HEAT "Ambient Temperature and the Risk of Preterm Birth in Guangzhou, China (2001-2011)." *Environmental health perspectives* vol. 124,7: 1100-6. doi:10.1289/ehp.150977
- Human Rights Watch. (2015). Marry Before Your House is Swept Away - Child Marriage in Bangladesh.
- IPCC 2018 Changes in impacts of climate extremes: human systems and ecosystems. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 231-290. <https://www.ipcc.ch/report/managing-the-risks-of-extreme-events-and-disasters-to-advance-climate-change-adaptation/changes-in-impacts-of-climate-extremes-human-systems-and-ecosystems/>
- Karumbi, J., Gathara, D., & Muteshi, J. (2017). EXPLORING THE ASSOCIATION BETWEEN FGM/C AND EARLY/CHILD MARRIAGE: A REVIEW OF THE EVIDENCE. [https://www.popcouncil.org/uploads/pdfs/2017RH\\_FGMC-ChildMarriage.pdf](https://www.popcouncil.org/uploads/pdfs/2017RH_FGMC-ChildMarriage.pdf)
- Kilsby, D., and Rosenbaum, H. (2012). Scoping Of Key Issues In Gender, Climate Change And Disaster Risk Management To Inform Proposed UN Women Five-Year, Five-Country Pacific Program. Internal briefing Document, UN Women.
- Khan, A.E., Ireson, A., Kovats, S., et al. (2011). SALINATED WATER - Drinking Water Salinity and Maternal Health in Coastal Bangladesh: Implications of Climate Change. *Environ Health Perspect* 119:1328–1332 . Available at: <https://doi.org/10.1289/ehp.1002804>
- Kuehn L., McCormick S. (2017). HEAT Heat Exposure and Maternal Health in the Face of Climate Change. *Int J Environ Res Public Health*;14(8):853. Published Jul 29 2017. doi:10.3390/ijerph14080853

- Le Masson, V., Benoudji, C., Sotelo Reyes, S., and Bernard, G. (2019). How violence against women and girls undermines resilience to climate risks in Chad. *Disasters*, 43(S3), S245–S27
- MALARIA - [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(18\)30066-5/fulltext#seccesstitle10](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(18)30066-5/fulltext#seccesstitle10)
- MALNUTRITION - Lancet Malnutrition [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30246-1/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30246-1/fulltext)
- McLeod, C., Barr, H., and Rall, K. (2019). Does climate change increase the risk of child marriage: A look at what we know and what we don't with lessons from Bangladesh and Mozambique. *Columbia Journal of Gender and Law*, 38(1), 96-146.
- Mian, L.H., and Namasivayam, M. (2017). Sex, rights, gender in the age of climate change. Kuala Lumpur: Asian-Pacific Resource & Research Centre for Women. <https://arrow.org.my/publication/sex-rights-gender-age-climate-change/>.
- Onyango, M. and S. Heidari. (2017). Care with dignity in humanitarian crises: Ensuring sexual and reproductive health and rights of displaced populations. *Reproductive Health Matters* 25, no. 51 (2017): 1–6. [www.jstor.org/stable/26495946](http://www.jstor.org/stable/26495946)
- Sato, M., Nakamura, Y., Atogami, F., Horiguchi, R., Tamaki, R., Yoshizawa, T. and Oshitani, H. (2016). "Immediate Needs and Concerns among Pregnant Women During and after Typhoon Haiyan (Yolanda)." *PLoS Currents* 8. <https://pubmed.ncbi.nlm.nih.gov/26865988/>.
- Selby, D. (2015). "Climate Change: Reorienting the Development Agenda." In *From the Local to the Global* (3rd edition): Key Issues in Development Studies, edited by G. McCann and S. McCloskey, 113–131. London: Pluto Press. doi:10.2307/j.ctt183p5fn.11.
- Sorensen, C., et al. (2018). Climate change and women's health: Impacts and policy directions. *PLoS Med* 15, no. 7: e1002603. <https://doi.org/10.1371/journal.pmed.1002603>.
- Tower, A. (2020). "The Gendered Impacts of Climate Displacement." <https://www.climate-refugees.org/perspectives/genderedimpactsclimatechange>
- Tsaneva, M. (2020). The Effect of Weather Variability on Child Marriage in Bangladesh. *Journal of International Development*.32(8):1346–59.
- Uneke, C.J. (2008). Impact of Placental Plasmodium falciparum Malaria on Pregnancy and Perinatal Outcome in Sub-Saharan Africa. *Yale Journal of Biology and Medicine* 81, no. 1: 1-7. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2442721/>
- UNFCCC. (2019). Climate Change Increases the Risk of Violence Against Women. Available at: <https://unfccc.int/news/climate-change-increases-the-risk-of-violence-against-women>
- United Nations Population Fund. (2015). Shelter from the Storm: A transformative agenda for women and girls in a crisis-prone world. State of the World Population. New York: United Nations Population Fund, 2015. [https://www.unfpa.org/sites/default/files/pub-pdf/State\\_of\\_World\\_Population\\_2015\\_EN.pdf](https://www.unfpa.org/sites/default/files/pub-pdf/State_of_World_Population_2015_EN.pdf).
- WHO Fact Sheet (2018) <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>



**WITH THE GENEROUS  
SUPPORT OF**



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

**Swiss Agency for Development  
and Cooperation SDC**

**© UNFPA 2021**

9 Simba Road, PO Box 2980, Sunninghill, Johannesburg, South Africa, 2157

**UNFPA HQ**

[esaro.unfpa.org](http://esaro.unfpa.org)

Twitter: @UNFPA  
Facebook: UNFPA  
Instagram: unfpa

**UNFPA ESARO**

[esaro.unfpa.org](http://esaro.unfpa.org)

Twitter: @UNFPA\_ESARO  
Facebook: UNFPA East and Southern Africa  
Instagram: unfpaesaro