HEALTH AND CLIMATE CHANGE

Options for National Assessments under the Belém Gender Action Plan

This information note was prepared by an informal group of experts engaged in implementation of the UNFCCC's Belém Gender Action Plan (GAP) with key inputs from the George Institute of Health, Global Climate and Health Alliance, Out for Sustainability, Wellcome Trust, United Nations University International Institute for Global Health (UNU Global Health), United Nations Population Fund (UNFPA), alongside the Women's Environment and Development Organization (WEDO) and other key stakeholders. It does not represent official guidance from the UNFCCC. Please contact claudia@wedo.org for more information.

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1. Why Health Matters for National Assessments on A.3.9

This technical note is intended to present options that may support Parties, relevant organizations, civil society, researchers, National Gender and Climate Change Focal Points (NGCCFPs), and other stakeholders preparing submissions under Deliverable A.3.9 of the Belém Gender Action Plan (Decision 7/CP.30). This Deliverable invites submissions by March 2027 on the findings of national assessments of relevant issues, such as health, violence against women and girls, and care work in the context of gender and climate change. This technical note on health represents one of three technical notes, including those on violence against women and girls (VAWG) and care.

2. Health and Climate Change

"Climate change is the greatest global health threat facing the world in the 21st century, but it is also the greatest opportunity to redefine the social and environmental determinants of health."

– Lancet Countdown on Health and Climate Change

Existing global health challenges are exacerbated by the escalating climate crisis, with extreme weather events and slow-onset change, including biodiversity loss and ecosystem change, that affect disease vectors, driving food insecurity and malnutrition and changing communicable disease patterns, as well as directly leading to harm and death from flooding, extreme heat, and wildfires. Climate change worsens existing health risks and complicates efforts to prevent and manage infectious diseases, reproductive health complications, acute conditions, and chronic disease, while also affecting brain health and development. Climate change thus negatively affects the health of populations worldwide, increasing disease burden and preventable morbidity and mortality

while disrupting the provision of healthcare and access to health services and supplies. Supply chains for essential medicines, vaccines and contraceptives break down, health facilities and health workers are put at risk, and displacement and forced migration cut people off from the services they rely on. Mental health challenges linked to specific climate events, and to the wider threat of climate change, are also rising. Climate change can worsen current mental health and precipitate new mental health issues, as well as serve as another source of risk for those striving to manage their mental health amid a climate disaster, who may experience greater vulnerability and/or marginalization.[1]

Climate change interacts with many existing health and healthcare challenges, including disruptions to essential medicine and vaccine supply chains, population displacement and forced migration, food and water insecurity, increased disease burdens, weakened public health systems, and widening socioeconomic inequalities that limit access to care for vulnerable populations.

Gender analysis highlights the variability and intensity of these risks, impacts, and experiences, including different opportunities to prevent, respond to, and address these risks. Women and girls face disproportionate and compounding risks, including: higher maternal and neonatal complications during heatwaves and disasters; increased exposure to water- and vector-borne diseases; food insecurity and malnutrition; and disrupted access to sexual and reproductive health services. Evidence shows that women and girls often face higher mortality, displacement, and gender-based violence during and after climate-related disasters. People of diverse sexual orientations, gender identities and expressions, and sex characteristics (SOGIESC) face their own set of risks, including discrimination in shelters and health facilities, exclusion from relief when identity documents do not match their gender, and interrupted access

[1] https://unitedgmh.org/climate-and-environment/

to HIV services and gender-affirming care during heatwaves and floods. Persons with disabilities, older persons, children, Indigenous Peoples, and migrants and displaced people also face higher exposure and greater barriers to care, and these risks compound where several factors intersect, for example, for an Indigenous woman with a disability living far from the nearest clinic, or a gender-diverse person with a mental health diagnosis becoming more isolated during a climate event.

Meanwhile, air pollution associated with greenhouse gas emissions leads to millions of deaths annually, with gendered impacts of air pollution based on roles in the household, chronic health conditions such as asthma, and biological sex differences.[2] [3] [4] [5] As roles related to caregiving are considered, gendered exposure to pollution from cookstoves/cooking fuels means that women and children disproportionately bear the burden of household air pollution.[6] Women living in polluted areas have a greater breast cancer risk, demonstrating the environmental injustice dimensions of these issues.[7] Exposure to air pollution also has a devastating impact on fertility and maternal health. For people undergoing in vitro fertilization treatment, air pollution can decrease the odds of having a baby by over a third.[8] Exposure can put pregnant women at higher risk of complications like stillbirth, miscarriage, and postpartum depression.[9] [10] One study found air pollution to be as dangerous as smoking for miscarriage.[11] Cutting emissions that drive

[2] https://www.cleanairfund.org/news-item/impact-of-air-pollution-on-women/

[3] https://www.lcmchealth.org/blog/2023/may/why-are-the-health-effects-of-pollution-worse-fo/

[4] https://www.nejm.org/doi/full/10.1056/NEJMoa054409/

[5] https://studyfinds.com/diesel-exhaust-air-pollution-women/

[6] https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health/

[7] https://www.breastcancer.org/research-news/air-pollution-breast-cancer-risk/

[8] https://www.theguardian.com/science/article/2024/jul/07/air-pollution-live-birth-ivf-fertility-study/

[9] https://www.sciencedirect.com/science/article/abs/pii/S0013935123006333/

[10] https://link.springer.com/article/10.1186/s12940-021-00807-x/

[11] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00682-6/abstract/

climate change is a key strategy to widespread improvement in health outcomes.

A gendered approach to health moves beyond considering how disease patterns and different reproductive needs across the life-course are influenced by sex, sexual orientation, gender expression, and gender identity. Gender influences access to health information, access to and availability of health services, interactions with health workers, and health behaviors. It also influences health leadership and decision-making: gender influences who is represented in health and climate institutions, who holds agenda-setting and budget authority, whose knowledge is recognized, who can influence the design and monitoring of services, who is expected to fulfill health-sector jobs, and who has access to training for various positions and responsibilities. Age, disability, race, ethnicity, Indigenous identity, migration status, class, education and geography, inter alia, work in tandem with gender as social determinants of health.

Women and feminist organizations across the world, together with LGBTIQ+, Indigenous Peoples', disability-led and migrant-led organizations are on the frontline leading climate adaptation, community resilience, food security and health responses to climate change. Despite this, their knowledge, expertise, lived experience, leadership, and priorities for gender-transformative change remain underrepresented in climate decision-making and policy processes.

3. What Is Health

According to the World Health Organization, in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Furthermore, "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human

being without distinction of race, religion, political belief, economic or social condition." [12] Yet social determinants of health, including gender, shape health outcomes and influence climate risk and vulnerability as well as access to decision-making and power.

Health includes sexual and reproductive health, defined by the Guttmacher-Lancet Commission as "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." Realizing it depends on sexual and reproductive rights and on a package of essential services: contraception; antenatal, childbirth and postnatal care; safe abortion services and treatment of complications of unsafe abortion; prevention and treatment of HIV and other sexually transmitted infections; prevention of and response to sexual and gender-based violence; care for reproductive cancers and infertility; and counselling on sexual health and wellbeing.[13]

Sexual and reproductive health and rights (SRHR) are integral to universal health coverage (UHC) and must be delivered through accessible, inclusive and climate-resilient health systems. Progress toward UHC has slowed since 2015,[14] and fiscal, humanitarian and climate pressures now put existing gains at risk. In climate emergencies, sexual and reproductive health services risk being deprioritized, and those who already struggle to reach them, including adolescents, persons with disabilities, LGBTIQ+ people, Indigenous Peoples, and migrants and displaced people, are the most likely to lose access.

The six building blocks of a health system — service delivery, health workforce, health information systems, access to essential medicines, financing, and

[12] Basic documents: forty-ninth edition (including amendments adopted up to 31 May 2019). Geneva: World Health Organization; 2020. License: CC BY-NC-SA 3.0 IGO.

[13] Starrs AM et al., Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher-Lancet Commission, Lancet, 2018, 391:2642–2692, https://www.thelancet.com/commissions/sexual-and-reproductive-health-and-rights/.

[14] World Health Organization and World Bank, Tracking Universal Health Coverage: 2023 Global Monitoring Report, 2023.

leadership/governance — work together to improve health. The right to the enjoyment of the highest attainable standard of physical and mental health and bodily autonomy can only be achieved when SRHR are realized.

4. Key Messages

1. **The climate crisis is a health crisis,** with both acute environmental stressors and long-onset environmental degradation of land, water, and air directly causing millions of preventable deaths each year and rising.

2. **Climate change is an amplifier of health inequity**, and it is women and girls who bear a disproportionate health burden across the life course, alongside children, older persons, persons with disabilities, Indigenous Peoples, migrants and displaced people, and LGBTIQ+ people, particularly where these identities intersect. Responses to climate change must be gender-transformative and rights-based, through the collection of evidence on the gendered vulnerabilities and impacts of climate change and meaningful action to ensure that those who require the greatest policy intervention for protection receive it.

3. **Health workers, of whom almost 70% are women globally, can provide an essential community-driven mechanism for delivering climate-adaptive healthcare** to those who need it most. Investment in and protection of community and primary healthcare is crucial to health adaptation, mitigation, and prevention efforts.

4. **Responses to climate change would be incomplete and ineffective without considering the role that sexual and reproductive health and rights (SRHR)** play in strengthening individual and community resilience as well as addressing the health impacts of the climate crisis. Health

system adaptation must protect SRHR and keep sexual and reproductive health services, HIV services and gender-affirming care available to everyone who needs them, during and after climate shocks.

5. **Health, violence against women and girls, and care work are interconnected and mutually reinforcing dimensions of climate risk.** Climate-related illness, injury, and disruptions to health services increase care needs and the demand for paid and unpaid care work, often disproportionately affecting women and girls. At the same time, climate-related violence and increased care responsibilities can undermine physical and mental health, restrict access to healthcare, and reduce individual and community resilience. Understanding these interconnections is essential to developing comprehensive, gender-responsive climate policies.

5. Key Findings and Evidence to Consider

Taking stock of which climate-sensitive health data are collected, and how and whether they can be disaggregated by sex, gender, age, disability, and other characteristics, is essential to understand the strengths and weaknesses of existing data-capture infrastructure and where important gaps to be addressed remain. National Health Management Information Systems (HMIS) and District Health System (DHS) data, as well as any local government-run or private facility-level data, are useful starting points to assess sex-specific differences in climate-sensitive health vulnerability and healthcare utilization. Data on service continuity, such as interruptions to contraceptive supply, antenatal care, HIV treatment, and other essential services during and after climate events, can show where health systems are failing under climate stress. Note that healthcare utilization in times of economic scarcity and stress often favors

men, who are more socially and economically able to access care, potentially obscuring the true disease burden and level of need in women and girls.

Qualitative data capture can be essential for uncovering gendered, climate-mediated health impacts that are often "hidden" in routinely collected health data. Routine systems also rarely record disability, Indigenous identity, migration status, sexual orientation or gender identity, so the health needs of persons with disabilities, Indigenous Peoples, migrants and displaced people, and LGBTIQ+ people often go unseen. Qualitative data gathering, such as key informant interviews, discussion circles, or focus groups, designed and carried out with women's rights organizations, LGBTIQ+ organizations, Indigenous Peoples' organizations, organizations of persons with disabilities, and migrant and displaced communities, should be undertaken as part of Deliverable 3.9 reporting. Collecting data on sexual orientation and gender identity must be voluntary, confidential, and guided by do-no-harm principles, particularly where same-sex relations or gender diversity are criminalized.

The WHO health vulnerability resources[15] provide a useful reference for climate-sensitive disease, though there is relatively scant information on which conditions disproportionately impact women and girls and how, and even less on how they affect LGBTIQ+ people, persons with disabilities or Indigenous Peoples. Health data should always be disaggregated by sex and, in line with SDG target 17.18, by age, disability, ethnicity, migratory status, and other characteristics relevant in national contexts, wherever possible, to inform targeted policy action and ensure resources are allocated to the populations that will benefit most.

Examples of climate-sensitive and sex-specific health conditions by different environmental exposures to consider are as follows. Note that this list is by no means exhaustive.

[15] https://www.who.int/teams/environment-climate-change-and-health/climate-change-and-health/capacity-building/toolkit-on-climate-change-and-health/vulnerability/

Flooding and cyclones

- Gender-based violence (see technical note)
- Skin infections
- Vector-borne disease and water-borne disease
- Menstrual health and hygiene challenges, including urinary tract infections
- Interrupted access to sexual and reproductive health services and essential medicines, including contraception, antenatal care, HIV treatment and gender-affirming hormone therapy
- Poor mental health and suicide

Drought and saltwater intrusion

- Gender based violence, including child, early and forced marriage (see technical note)
- Cardiovascular events and kidney health events
- Water insecurity
- Food insecurity, as well as malnutrition, undernutrition, poor nutrition and obesity
- Poor mental health and suicide

Extreme heat and bushfires/wildfires:

- Gender-based violence (see technical note)
- Reproductive health issues: pre-term labor, stillbirth, miscarriage
- Cardiovascular events
- Kidney events
- Brain and nervous system events
- Interruption of access to health services, including sexual and reproductive health services and essential medicines due to discomfort or health complications, including gender-affirming hormone therapy or general hormonal therapy.

A closer look at extreme heat: Heat affects every system in the body, including the brain, kidneys, and heart, and women are more biologically at risk than men, especially post menopause. Extreme heat is a severe risk factor for both maternal and fetal health. Because pregnant individuals experience significant changes to their cardiovascular systems, they face higher core body temperatures and find it harder to self-regulate heat.[16] [17] [18] [19]

Data to Collect

- Sex, age, and gender-disaggregated data on morbidity, mortality, and emergency room visits related to extreme heat, flooding, drought, bushfires/wildfires, sand and dust storms, and air pollution
- Sex, age and gender-disaggregated data on food insecurity and undernutrition driven by climate change
- Sex, age and gender-disaggregated data on infectious diseases exacerbated by or changing distribution related to climate — dengue, chikungunya, Zika; malaria; West Nile; tick-borne disease; and Vibrio — as well as qualitative information on gendered access to health information and services in areas of risk of infection
- Sex, age and gender-disaggregated data on access to and continuity of essential SRH services — including, for example, comprehensive sexuality education, contraceptives and contraceptive counseling, STD treatment during and after climate emergencies — with geographic coverage encompassing refugee camps and other settings where people are displaced and/or migrants and health services are inconsistent
- Various measures of healthcare quality, service access and continuity during times of climate-induced health system stress

[16] https://www.science.org/content/article/how-much-heat-dangerous-during-pregnancy

[17] https://wellcome.org/insights/articles/heat-and-maternal-health-protecting-pregnancies-warming-world/

[18] Protecting maternal, newborn and child health from the impacts of climate change - A UNFPA-UNICEF-WHO call to action

[19] United Nations Secretary-General's Call to Action on Extreme Heat

- Measures of maintenance of supply chain and procurement pathways during various climate stressors
- Heat exposure on maternal, newborn and child health guided by the priority indicators to monitor the impact

Disaggregating mortality and health service utilisation statistics by sex and gender also contributes to building this evidence base and understanding who is most at risk of health issues related to various climate impacts.

6. Policy Directions

1. **Strengthen capability across governments** to recognize the importance of the gendered impacts of climate change on health, including impacts on SRHR and on people facing intersecting forms of discrimination.

2. **Strengthen local technical information capture and data pipelines** to ensure that sex and gender are captured in every health record and that health service utilization statistics and health status reporting are disaggregated by sex and/or gender, as well as by age, disability, and other characteristics relevant in national contexts, with voluntary and confidential collection of data on sexual orientation and gender identity where it is safe to do so. This may include integrating early warning systems with electronic health records to identify individuals at high risk of poor health and target messages accordingly.

3. **Integrate known sex-specific climate-mediated health risks and impacts into health planning** (including National Health Policies, Strategies and Plans, Health National Adaptation Plans, NAPs and NDCs), adaptation, mitigation, and resilience-building efforts to maximise health protection *for all*.

4 **Fulfill existing global commitments regarding health, such as achieving universal health coverage, to promote resilience.** Universal health coverage is also essential for a just transition, where health insurance and access to quality health services are not tied to employment, though upskilling, training, and other support also remain necessary to ensure work is safe and dignified.

5 **Consider health systems, including health workers, in anticipating impacts of climate shocks while addressing the health sector's positive and negative contributions to climate change.** Health service providers and community health workers both informal and formal, and including doulas and midwives, are essential in not only providing care in the aftermath of a climate event, but also in the preparation for climate risks, given their access to households and communities. Strengthening climate-resilient health systems requires investment in the health workforce, including training, decent working conditions, occupational protections, and meaningful participation in health and climate planning.At the same time, health systems must reduce their own environmental impacts, including greenhouse gas emissions, while strengthening their contributions to climate mitigation, adaptation, and community resilience.

6 **Strengthen meaningful participation and leadership of women, girls, and women-led organizations,** impacted communities as well as LGBTIQ+ people, Indigenous Peoples, persons with disabilities, and migrant and displaced communities and the organizations that represent them, in health protection climate policy initiatives — ensuring policymaking processes and the evidence gathering exercises that underpin them are participatory and equitable.

7. **Finance gender-responsive, climate-resilient health systems,** starting with primary and community health care and including sexual and reproductive health services, through both domestic budgets and international climate and health finance. Avoid cutting domestic health budgets to meet debt service obligations, including debt incurred to recover from climate-related disasters, since such cuts weaken the response to the next event and undermine resilience.

8. **Protect continuity of essential health services** in climate emergencies, including sexual and reproductive health services, HIV treatment, and gender-affirming care. Integrating the Minimum Initial Service Package (MISP) for Sexual and Reproductive Health in Crisis Situations into disaster preparedness, early warning, and response plans is one practical starting point.

9. **Prioritize adolescent- and youth-centered health interventions** by integrating young people, particularly young women and adolescent girls, into climate leadership, policy formation, and sexual and reproductive health decision-making processes.

10. **Institutionalize Priority MNCH Heat Indicators into Routine Information Systems:** Integrate core MNCH metrics — such as preterm birth rates in facilities, outpatient department attendance disaggregated by age and sex, and under-five facility mortality — into routine health information systems (RHIS) and surveillance systems to systematically monitor and respond to extreme heat impacts.

7. Conclusion

Addressing climate change is imperative for improving health outcomes and achieving global commitments regarding the right to health. Gender-responsive climate action is informed by and addresses gendered differences in the health impacts of climate change, including on sexual and reproductive health and rights. Deliverable A.3.9 under the Belém GAP provides an important opportunity to strengthen the evidence base on the gendered health impacts of climate change and identify concrete priority actions to translate this into effective and equitable climate action. Data disaggregated by sex, gender, age, disability and other relevant characteristics, complemented by qualitative evidence and the lived experience and expertise of women and girls and of others facing intersecting discrimination, including LGBTIQ+ people, Indigenous Peoples, persons with disabilities, and migrants and displaced people, are critical to ensure that climate policies and investments protect those facing the greatest risks and support their leadership in inclusive climate action. This assessment and continuing gender-health planning, programming, and budgeting processes will require a collaborative effort among governments, civil society and communities working towards building equitable, resilient health systems and societies.

ANNEX

Key Resources to Consult

2026 Children's Climate Risk Database and report

Effects of environmental change on health and the critical need for sex- and gender-disaggregated data | npj Women's Health

Financing Climate-Resilient Health Systems: A Case For Scaling Quality Financing And Integrating Agendas

From Crisis To Strategy: Mainstreaming Climate Risk In Health Systems Planning

Gender mainstreaming for health managers: a practical approach

Health at the heart of national adaptation planning

Healthy NDCs: Embedding Health in National Climate Plans for 2035

Operational framework for building climate resilient and low carbon health systems

Planetary health and women with disabilities' lived experiences of climate impact on health equity in Kenya and Uganda

Priority indicators to monitor the impact of heat exposure on maternal, newborn and child health

Sexual and Reproductive Health and Rights: Integral to the Climate and Health Response

WHO's Climate Change and Health Clearinghouse

A Rapid Review of the Impacts of Climate Change on the Queer Community (Environmental Justice)

Invisible in the Storm: Climate Change and the Lived Realities of Transmasculine People in India (Health Promotion Practice, 2026)

Taking Stock: Sexual and Reproductive and Health and Rights in Climate Commitments: A Global Review (UNFPA, 2023)

The Influence of Environmental Toxicity, Inequity, and Capitalism for Reproductive Health

Synergies in jointly addressing climate change, health equity and gender equality (UNDP, 2023)

Ten years of the Paris Agreement; A global review of health in nationally determined contributions (WHO, 2026)

No time to waste: Pathways to deliver clean cooking for all: A UNDP approach and policy guide (UNDP 2025)