



# Climate Change is a Sexual and Reproductive Health and Rights Issue

## What is climate change?

- Climate change is “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 over comparable time periods.”<sup>1</sup>
- The direct effects of climate change include slow-onset events such as rising global temperatures and rapid-onset disasters such as climate change-induced extreme weather events (i.e., heat waves, floods, droughts, wildfires, and cyclones).<sup>2</sup>
- The indirect effects of climate change threaten human health through adverse changes in air pollution, the spread of disease vectors, food insecurity and under-nutrition, water scarcity, displacement, increased potential for climate-related conflict, and decreased mental and physical health.<sup>3</sup>
- Though all populations are affected by climate change,<sup>4</sup> the effects of climate change do not affect all people equally. People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are disproportionately affected by climate change.<sup>5</sup> This is the product of intersecting social processes, including: discrimination based on race, gender, sex, class, ethnicity, age, or (dis)ability, and other factors that result in inequalities in socioeconomic status and income, as well as differences in exposure to climate change and its effects.<sup>6</sup>

- » For example, in both Latin and North America, historical and structural racial discrimination against people of African descent (PAD), such as existing disparities in health, living conditions, and wealth, are exacerbated by climate change-related natural disasters, communicable disease outbreaks, and displacement.<sup>7</sup>
- It is often those who have contributed the least to climate change who are the most vulnerable to and most impacted by climate change, including women and children, indigenous peoples, persons with disability, and others who are marginalized.<sup>8</sup>

## Climate change is a sexual and reproductive health and rights (SRHR) issue

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- A person's sexual and reproductive health is inextricably linked to the health of the environments and communities in which they live.<sup>13</sup>
- Foundational SRHR guiding documents, including the 1994 International Conference on Population and Development,<sup>14</sup> have called for the analysis of the structural links between SRHR, gender, and climate change.<sup>15</sup>

**Sexual and Reproductive Health and Rights (SRHR)** is “a state of physical, emotional, mental and social well-being in relation to all aspects of sexuality and reproduction, not merely the absence of disease, dysfunction, or infirmity” that also includes the right of individuals to safe and pleasurable sexual relationships, make decisions governing their bodies and to access services that support that right, and overall well-being.<sup>9</sup>

**Reproductive Justice** is when all people have the social, economic, and political resources and power to make decisions over their bodies, their families, their sexuality, and their reproduction and is defined by SisterSong as “the human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities.”<sup>10</sup>

**Environmental Justice** is the right to a decent, safe quality of life for people of all races, incomes and cultures and provides a framework for communities of color to articulate the political, economic, and social assumptions underlying why environmental racism and degradation happens and how it continues to be institutionally reinforced. Environmental justice is both a set of principles and policies and have grown into a global social movement in response to the environmental racism experienced by Black, Indigenous, and people of color (BIPOC) communities in the United States.<sup>11</sup> Environmental racism is the disproportionate impact of environmental health hazards (including those due to climate change), unhealthy land uses, psychosocial stressors, and historical traumas on Black communities, communities of color, Indigenous communities, and low-income communities.<sup>12</sup>

**1.** In the United States, studies have shown that natural disasters widen the racial wealth gap between white and Black communities. Black and African American individuals in the United States are also more likely than non-Black and non-African American individuals to live in areas with the highest projected increases in (1) mortality rates due to climate-driven changes in extreme temperatures and (2) morbidity and premature mortality from climate-driven changes in air pollution. See endnote 11 for more information.



- Climate change threatens SRHR as well as the rights to life, decent work, the highest attainable standard of physical and mental health, self-determination, water and sanitation, food, housing, education, information, culture, public participation, and development.<sup>16</sup>

## Whose SRHR are affected by climate change?

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- Climate change and its effects further limit peoples' access to SRHR.<sup>17</sup>
- The populations that are disproportionately impacted by climate change and its effects are the same populations that already experience limited access to SRHR services.<sup>18</sup>
  - » It is important to note that the populations listed below are not an exhaustive representation of whose SRHR are affected by climate change. The data presented here are intended to provide context for how climate change impacts individuals based on one element of their identity. The impacts of climate change on individuals and populations can be best understood through the application of an intersectional lens that includes an understanding of one's race, ethnicity, gender, sex, sexuality, class, nationality, and other elements of one's social and political identity.<sup>19</sup>

## Women and Girls

- 80% of those displaced by the effects of climate change are women.<sup>20</sup>
- Across social and cultural contexts, women are among the most at risk of the adverse health effects of climate change due to existing socioeconomic inequalities and cultural norms.<sup>21</sup>

- Due to systemic gender inequality, women and girls have limited access to resources and decision-making power, which also inhibits their ability to withstand and recover from climate-induced disasters and access basic services, including healthcare, education, housing, and other recovery services.<sup>22</sup>
- Periods of climate extremes, such as drought, and the resulting food insecurity in agricultural communities reliant on subsistence farming, have been shown to lead to increases in high-risk sexual behaviors (e.g., transactional sex, early sexual debut), physical and sexual violence, and HIV prevalence among adolescent girls and young women.<sup>23</sup>
- Because women and girls' needs are often not prioritized in climate-induced disaster and conflict responses, they lack access to crucial SRH services, including emergency contraception to prevent pregnancy, post-exposure prophylaxis (PEP) to prevent HIV infection, diagnosis and treatment of sexually transmitted infections (STIs) including HIV, and counseling and other psychosocial support services in cases of gender-based violence (GBV).<sup>24</sup>
- Climate-induced disasters and climate-related conflict exacerbate GBV against women and girls.<sup>25</sup>
- As tensions and competition over limited natural resources increase, GBV is often used to maintain and reinforce power imbalances and violently discourage women and girls from accessing or owning resources related to forests, agriculture, water, and fisheries.<sup>26</sup>
- Gender-differentiated roles, such as traveling by foot to collect food, firewood, and water, increase women and girls' daily risk of being sexually harassed, raped, or even killed.<sup>27</sup> GBV during resource-collection has been extensively documented in rural communities in low- and middle-income countries (LMICs)<sup>28</sup> and humanitarian settings.<sup>29</sup>



- » When food and natural resources become scarce as a result of climate change, women and girls must travel farther distances and often into unfamiliar territories to collect resources, which further increases their risk of experiencing GBV including sexual violence.<sup>30</sup>
- » Lacking access to sufficient water supply to complete household tasks is associated with increased risk of intimate partner violence (IPV).<sup>31</sup>
- Violence against women and children, including psychological and sexual violence, can increase after disasters due to high levels of stress and feelings of powerlessness related to the loss of housing, land, and livelihoods; the scarcity of basic resources; and post-traumatic stress.<sup>32</sup>
- The risk of child marriage may increase after natural disasters or when communities experience the effects of climate change.<sup>33</sup>

## Pregnant and Breastfeeding Persons

- Climate change is increasing the frequency of heatwaves and the intensity of air pollution,<sup>34</sup> which are associated with increased risk preterm birth (PTB), low birth weight, and stillbirth.<sup>35</sup>
  - » In the United States, research indicates that the risk of PTB associated with exposure to high temperatures was higher among Black, Hispanic, Asian, and Native American pregnant persons than for white pregnant persons.<sup>36</sup> A study conducted in California found that for every 10 degrees Fahrenheit increase in temperature, Black pregnant persons faced nearly double the risk of PTB compared to non-Black pregnant persons.<sup>37</sup>
  - » In the United States, Black communities face the highest average exposures to power plants' fine particulate pollution.<sup>38</sup> Exposure to high concentrations of particulate matter has been associated with lower birth weights and higher stillbirth rates, especially among non-Hispanic Black pregnant persons.<sup>39</sup>
- In subsistence agriculture-based communities around the world, pregnant and breastfeeding persons are likely to experience malnutrition during climate-induced disasters due to low socioeconomic status and unique nutritional needs.<sup>40</sup>
  - » Malnutrition during pregnancy can lead to adverse fetal development (including neurodevelopment) outcomes, preterm birth, low birth weight, and poor health outcomes for the child and pregnant person - particularly pregnant adolescents, minorities, and those of lower economic status.<sup>41</sup>
- Lack of access to water, sanitation, and hygiene (WASH) contributes to maternal mortality.<sup>42</sup>
- Climate change is predicted to alter the geographic distribution of several parasitic and vector-borne infectious diseases.<sup>43</sup>
  - » As people increasingly encroach into natural ecosystems seeking limited resources and/or land, the exposure to new animal pathogens increases, creating the conditions for the emergence of novel zoonotic diseases.<sup>44</sup>
  - » The viruses that cause AIDS, SARS,<sup>45</sup> Zika,<sup>46</sup> and Ebola virus disease<sup>47</sup> originated from animal populations under conditions of severe environmental pressure.
- Increased climate instability has contributed to the emergence and increased geographic distribution of mosquito-borne infections like Zika, chikungunya, dengue, and malaria.<sup>48</sup>
- Zika<sup>49</sup> can be transmitted through sexual contact as a sexually transmitted infection and can also be transmitted from pregnant person to fetus during pregnancy.<sup>50</sup>



- » Zika infection during pregnancy has detrimental impacts on maternal and child health, including preterm birth, miscarriage, microcephaly,<sup>51</sup> and other congenital abnormalities in the developing fetus and newborn.<sup>52</sup>
- The Ebola virus can also be transmitted sexually<sup>53</sup> and Ebola virus disease is associated with a mortality rate between 74% and 93% for pregnant persons and leads to stillbirth in nearly 100% of cases of pregnant persons with Ebola virus disease.<sup>54</sup>
- Transmission of chikungunya from pregnant person to fetus primarily occurs during vaginal delivery and often leads to severe neonatal infection.<sup>55</sup>
- Dengue infection during pregnancy is associated with an increased risk of stillbirth, preterm birth, low birth weight.<sup>56</sup>
- Malaria in pregnancy is a cause of adverse birth outcomes, including severe anemia, maternal death, stillbirth, preterm birth, and low birth weight.<sup>57</sup>
  - » For pregnant persons living with HIV, malaria in pregnancy is associated with a two-fold higher HIV viral load compared to pregnant persons living with HIV without malaria,<sup>58</sup> more severe malaria symptoms, and worse birth outcomes compared to pregnant persons without HIV.<sup>59</sup>

### People Living with HIV (PLHIV)

- PLHIV experience decreased access to antiretroviral therapy during and after climate-induced disasters and conflicts due to overburdened healthcare systems and challenges physically reaching clinics in emergency settings.<sup>60</sup>

- Food insecurity related to climate change has been shown to drive sexual risk behaviors such as transactional sex, which may increase HIV transmission.<sup>61</sup>
- Food insecurity may also worsen health outcomes for PLHIV by burdening immune function, compromising anti-retroviral adherence, and contributing to incomplete viral suppression and increased HIV-related morbidity and mortality.<sup>62</sup>
- Climatic changes, such as longer seasons and hotter temperatures, increase the prevalence and distribution of infectious vector-borne and zoonotic diseases which has been shown to worsen health outcomes for PLHIV that have co-infections or who are immunocompromised.<sup>63</sup>

### Indigenous women and children

- Extractive industry projects, which disproportionately take place on Indigenous lands around the world<sup>64</sup> and exacerbate the ongoing impacts of climate change,<sup>65</sup> often rely on trafficking for the purpose of sex<sup>66</sup> and sexual violence<sup>67</sup> against indigenous women and children to intimidate and/or force communities to concede their land rights and natural resources.<sup>68</sup>
- Climate change intensifies the severity and frequency of conflict related to resource extraction and environmental degradation, which in turn exacerbate sexual and gender-based violence and other forms of marginalization against Indigenous women and girls.<sup>69</sup>
- According to one qualitative study, women from a Gulf Coast Indigenous tribe in the United States connected environmental changes in their community including environmental exploitation and exposure to pollutants, to high rates of chronic reproductive health issues, such as miscarriage, eclampsia, pre-term birth, and gynecological cancers.<sup>70</sup>



- Indigenous communities may struggle to adapt to the effects of climate change on subsistence agriculture, which, when coupled with intensive physical labor during pregnancy and prolonged exposure to extreme heat while growing and harvesting crops, may account for worse maternal and infant health outcomes.<sup>71</sup>
- » According to one qualitative study, women from Batwa Indigenous community in Kanungu District, Uganda reported higher food insecurity during pregnancy than non-Indigenous women, which was associated with more severe negative outcomes on maternal and infant health, such as maternal hypertension, miscarriage, or PTB than non-Indigenous women.<sup>72</sup>

### People who menstruate

- Increases in extreme weather events related to climate change can increase the risk of pollutant and toxin release into the environment, which can alter the timing of menarche (the first occurrence of a person's menstruation).<sup>73</sup>
- Food insecurity and alterations in the kinds of foods available due to climate change-related food availability can result in either early or late menarche.<sup>74</sup>
  - » Early menarche has been associated with increased incidence of breast cancer, cardiovascular disease, premature menopause, and adverse mental health outcomes, including depression and self-harm.<sup>75</sup>
  - » Late menarche has been associated with increased incidence of breast cancer, cardiovascular disease, and adverse birth outcomes.<sup>76</sup>
- Lack of access to water, sanitation, and hygiene (WASH) hinders menstrual hygiene management.<sup>77</sup>

### The LGBTQI+ Community

- In general, members of the LGBTQI+ community and those of underrepresented sexual orientation, gender identity, gender expression, and sex characteristics (SOGIESC) struggle to access appropriate healthcare services.<sup>78</sup>
- As natural disasters increase due to climate change, the needs of LGBTQI+ and SOGIESC populations are often excluded in disaster management policies and research either intentionally or accidentally and the specific needs of these communities often go unmet during and after disasters.<sup>79</sup>
- LGBTQI+ young people are more likely to be homeless than their heterosexual counterparts,<sup>80</sup> making it even more difficult to cope and adapt when climate crises strike.<sup>81</sup>
- LGBTQI+ persons face various forms of discrimination after natural disasters, such as lower priority for relief sources services including shelter and rescue efforts when services provision is based on binary gender categories, and denial of services due to discrepancies between one's presenting gender and government-issued identification.<sup>82</sup>
- Members of the LGBTQI+ community face multiple forms of GBV in emergency shelters such as "corrective rape" or coercive transactional sex in order to obtain food and money.<sup>83</sup>
- Transgender persons may face disruptions or loss of access to medical care, such as hormone replacement therapy and other gender-affirming services, which often require specific power-dependent storage environments, such as refrigeration.<sup>84</sup> Lack of access to gender-affirming services can be emotionally, psychologically, and physiologically harmful to transgender persons.<sup>85</sup>



## Persons with Disability

- Climate change is likely to cause an increase in the incidence and prevalence of many disabling impairments including disease, injury, malnutrition, or physical and/or psychological disability caused by conflict or extreme weather events.<sup>86</sup>
- Inaccessible health care facilities and severe communication barriers, which are exacerbated during and after climate-induced disasters,<sup>87</sup> prevent women with disabilities from accessing sexual and reproductive care in climate-emergency settings.<sup>88</sup>
- Women with disabilities are one of the first groups to lose access to essentials like water and sanitation, shelter, food, and menstrual hygiene products after natural disasters.<sup>89</sup>

## Climate-induced displacement and SRHR

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- An average of 24 million people are displaced each year due to disasters and the adverse effects of climate change.<sup>90</sup> Those disproportionately displaced are most often women, children, the elderly, migrants and refugees, stateless people, sexual and gender minority groups, and people with disabilities or serious health conditions.<sup>91</sup>
- Lack of access to SRH services is compounded among displaced, migrant, and refugee populations due to an increased politicization of SRHR by national governments and lack of sensitization to rights in humanitarian settings, both related to climate change and otherwise.<sup>92</sup>

- At the onset of any humanitarian crisis, governments are expected to provide essential SRH services as detailed in the Minimum Initial Service Package (MISP) for Sexual and Reproductive Health.<sup>2, 93</sup>
  - » Neglecting to do so can contribute to preventable maternal and newborn deaths; sexual violence and subsequent trauma; STI and HIV transmission; unintended pregnancy; and unsafe abortion.<sup>94</sup>

## COVID-19, climate change, and SRHR

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- As climate-related disasters continue to occur throughout the COVID-19 pandemic, it is increasingly difficult to enact relief measures safely and quickly, placing those affected by natural disasters at even greater risk of contracting COVID-19.<sup>95</sup>
- Neither the COVID-19 pandemic nor ongoing climate-related disasters halt the need for SRH services, including contraception,<sup>96</sup> safe abortion,<sup>97</sup> cervical cancer screening,<sup>98</sup> sex education,<sup>99</sup> STI testing,<sup>100</sup> HIV treatment,<sup>101</sup> and maternal health services.<sup>102</sup>
- Given that COVID-19 is a humanitarian disaster,<sup>103</sup> governments are expected to implement MISP as a part of relief measures.<sup>104</sup>
- Severe COVID-19 infection during pregnancy is associated with increased risk of preeclampsia, preterm birth, and stillbirth.<sup>105</sup>

**2.** The Minimum Initial Services Package (MISP) for Sexual and Reproductive Health instructs States to provide access to safe abortion to the full extent of the law, as well as comprehensive contraceptive information and services, post-abortion care, STI and HIV care and treatment, PEP, and care for survivors of GBV. See endnote 74 for more information.



- It is estimated that a 10% decline in the use of modern contraceptives in LMICs due to COVID-19-related access disruptions would lead to an additional 49 million women with an unmet need for contraception and an additional 15 million unintended pregnancies over a 12-month period.<sup>106</sup>
- It is estimated that if 10% of women who would normally have a safe abortion instead resorted to an unsafe method due to COVID-19-related access disruptions, an additional 3.3 million unsafe abortions would occur in LMICs, resulting in an additional 1,000 maternal deaths over 12 months.<sup>107</sup>
- It is estimated that a 10% decline in essential pregnancy and newborn service coverage due to COVID-19 would leave an additional 1.7 million women who give birth and 2.6 million newborns with major complications without the care they need. This lack of care would result in an additional 28,000 maternal deaths and 168,000 newborn deaths in LMICs over a 12-month period.<sup>108</sup>
- In South Asia, more than 3.5 million additional unintended pregnancies are estimated to have occurred in 2020 due to COVID-19-related reductions in coverage of modern contraceptive methods.<sup>109</sup>
- An additional 230,000 child and 11,000 maternal deaths are estimated to have occurred in South Asia in 2020 due to COVID-19 pandemic and response coverage disruptions of essential SRH services.<sup>110</sup>
- Many national governments, including the U.S. government, have still not prioritized SRH services as essential healthcare in their COVID-19 responses.<sup>111</sup>

## The future of climate change and SRHR

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- Environmental justice and reproductive justice issues are inseparable,<sup>112</sup> and siloed thinking about climate change and SRHR ignores the lived realities of the most marginalized communities around the world.<sup>113</sup>
- Future research, policies, and programs at this intersection must be evidence-based, gender transformative, and based in human rights and equity.<sup>114</sup>
- Fully funding gender-transformative, equity-based solutions is necessary to mitigate the disproportionate impacts that climate change will continue to have on the sexual and reproductive well-being of all persons and particularly those who experience gender and other social inequality due to class, ethnicity, race, age, SOGIESC, or other socio-economic factors.<sup>115</sup>

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## Endnotes

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