

WHO Policy Brief

Climate Change, Health, & Intergenerational Equity

Synopsis

WHO is custodian to 16 Sustainable Development Goal (SDG) indicators linked to the health of children, adolescents, and youth that are negatively impacted by climate change or its drivers. The WHO recognizes that the majority of the world's 2.2 billion children are disproportionately affected by changes in their environment in the near- and long-term, and to that end recognizes the importance of the stabilization and reduction of atmospheric greenhouse gas concentrations for the health and development of children, adolescents, and youth, as a point of intergenerational equity. States have obligations to respect, protect and fulfill human rights, including the rights to health and to a clean, healthy and sustainable environment when taking climate action. The Preamble to the Paris Agreement under the UN Framework Convention on Climate Change (UNFCCC) clearly recognizes these obligations and the need for gender equality and intergenerational equity. More emphasis on intergenerational equity and the health and well-being of children, adolescents, and youth is needed in implementation and assessment of the Paris Agreement.

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**Note: This Brief aims to build capacity on climate change and health in the context of children, adolescents, and youth. However, the terms "children", and "youth" are at times used separately to reflect the supporting evidence available.*



Science

"The climate crisis is a child's rights crisis." Half the world's children live in extremely high-risk areas for climate change impacts.¹ Climate change **has devastating impacts on homes, schools, hospitals, nutrition, and drinking water** including during extreme weather events. These impacts can affect children's rights to education, health, safety, protection from violence, and an adequate standard of living, among others.² For example, record-breaking monsoon-related flooding in **Pakistan** - more than 5 times the 30-year average rainfall in some areas - has impacted at least **16 million children**, resulted in at least 400 child deaths, separated families, destroyed 18,000 schools, and limited the healthcare resources available while exacerbating disease and inhibiting ambitions to address childhood malnutrition.³

The health and well-being of children and youth is more climate-sensitive than in adult populations.¹ This includes during critical periods such as birth, growth and development. Exposure to climate change-associated extreme temperatures and events also impacts susceptibility to disease in the present and future. Approximately 90% of the global burden of disease due to climate change is borne by children under five.¹ According to the Intergovernmental Panel on Climate Change (IPCC), childhood malnutrition and diarrhoea are two main causes for annual projected premature deaths due to climate change, which will predominantly impact developing countries.⁴ Youth are also more sensitive to important drivers of climate change, such as non-CO₂ air pollutants.⁵ Air pollution, which is linked to the anthropogenic drivers of climate change, is associated to increased rates of childhood asthma.⁶ **The burden of health impacts due to climate change and its drivers on a child can therefore be lifelong and reduces their future potential.**¹ "Successful societies invest in their children and protect their rights, as is evident from countries that have done well on health and economic measures over the past few decades."⁷

Table 1: Summary of children's exposure and vulnerability to environmental hazards, shocks, and stressors¹

Children who...	
Live in areas where air pollution PM _{2.5} exceeds 10 µg/m ³ **	2 billion (~90%)
Are highly exposed to water scarcity	920 million
Are highly exposed to heatwaves	820 million
Are highly exposed to vector-borne diseases, such as malaria and dengue, among others	600 million
Are highly exposed to riverine and coastal flooding	570 million

Note:

*These figures are not additive.

** 2021 WHO air quality guideline standard is 5 µg/m³

Children, adolescents, and youth are and will be impacted by environmental determinants of health in ways current and previous generations have not experienced. At least 26% of child deaths under 5 years are due to environmental degradation⁸, and this is increasing. Hazards, shocks and stressors occur due to slow-onset changes, sudden and moderately-sudden events, environmental degradation, and stresses.¹ Furthermore, a recent study has found that children born now are 2 to 7 times more likely to experience extreme climate events compared to those born in 1960.⁹ Children, adolescents, and youth will face an increasingly urban landscape and new ecological tipping points, while being equipped with less traditional knowledge and innate ecological stewardship. Climate change will be increasingly stressful to children and adolescents into the future, especially for girls.⁴

Table 2. Mapping adverse effects of climate change to SDGs associated to the health and well-being of children, adolescents, and youth

Evidence projects negative impacts	Evidence suggests negative impacts
<p>2.2.1 Stunting under 5 years</p> <p>2.2.2 Malnutrition under 5 years (wasting and over-weight)</p> <p>2.2.3 Anaemia in women, 15-49 years</p> <p>3.3.3 Malaria incidence</p> <p>3.3.5 Interventions needed for neglected tropical diseases</p> <p>3.4.1 Mortality from cardiovascular disease, cancer, diabetes or chronic respiratory disease</p> <p>6.1.1 Use of safely managed drinking water services</p> <p>6.2.1 Use of safely managed sanitation</p>	<p>3.8.1 Coverage of essential health services</p> <p>3.8.2 Household health expenditures</p> <p>3.9.2 Mortality from unsafe WASH</p> <p>5.2.1 Ever-partnered women and girls 15+ years subject to physical, sexual, or psychological violence by a partner</p> <p>5.2.2 Women and girls 15+ years subject to sexual violence by other than an intimate partner</p> <p>6.3.1 Domestic and industrial wastewater flows safely treated</p>
<p>Evidence suggests negative impacts of the processes that drive climate change</p>	<p>3.9.1 Mortality from indoor and outdoor air pollution</p> <p>11.6.2 Mean levels of fine particulate matter in cities (e.g. PM_{2.5})</p>

*Adapted from WHO Review of IPCC Evidence 2022: climate change, health and well-being; Indicators listed are under WHO custodianship



Commitments by UNFCCC Parties should prioritize protecting the human rights, development and well-being of children, adolescents and youth from the adverse effects of climate change, and be guided by their best interests.

In 1992, the 197 Parties to the UNFCCC planted their determination “to protect the climate system **for the benefit of present and future generations** of humankind, on the basis of equity” in the first principle of the Convention.¹⁰ In 2015, the preamble of the Paris Agreement further emphasized that Parties should “**respect, promote, and consider**” intergenerational equity.¹¹

In 2017, the UN High Commissioner for Human Rights identified four pillars of a child rights-based approach to climate change policies: 1) education policies, such as those that **promote environmental stewardship** and climate change education, 2) disaster risk reduction, such as through specific **protections to children during emergencies and disasters**, 3) litigation, whereby **engagement of children in environmental litigation** serves as a key role in driving ambition for climate action to protect current and future generations, and 4) **human rights mechanisms**.²

In 2020, the Human Rights Council drew attention to **realizing the rights of the child through a healthy environment** in both international and national policies.¹²

In July 2022, the 76th session of the UN General Assembly (UNGA) recognized the **human right to a clean, healthy, and sustainable environment**, noting that “the full implementation of the multilateral environmental agreements under the principles of international environmental law” is required.¹³ It specified that the impacts of climate change “interfere” with this right, particularly for women and girls, indigenous people, and children.

Therefore health, well-being, and specific vulnerability of children, adolescents, and youth to climate change and its impacts on their human rights should be better reflected in implementation of the UNFCCC and its Paris Agreement, along with measures to monitor and evaluate progress. While 74 (72%) of the 103 updated or new nationally-determined contributions (NDCs) directly reference children or youth, UNICEF only considers 34% substantially “child sensitive.”¹⁴ 20% percent mention children under 18 years, 5 refer to human rights in the context of intergenerational equity or future generations, and only 3 countries mention the rights of children.¹⁴ Only 18% of these NDCs address children and youth as part of vulnerability assessments or diagnosis, or in specific commitments.¹⁴

Ambitious mitigation, pro-active adaptation, and strategic, well-resourced approaches to loss and damage are essential to healthy environments fit for children, adolescents, and youth. “Child-focused climate change adaptation” must improve the resiliency of services and healthy environments needed by children, to both withstand and recover from climate events.¹ Actions to “avert, minimize, and address” loss and damage should “promote physical and psychological recovery, rehabilitation and reintegration” of children.¹² This means a multisectoral approach to investing in education, health, water, sanitation, food security and nutrition, maternal and newborn services, energy, improved access to social protection, disaster risk reduction, housing, and information systems.^{1,2,14}

Investment in health-related SDGs is essential to minimizing climate risks, shocks, and stressors for children, adolescents, and youth. WHO is custodian to 32 SDG indicators on health, 17 of which are negatively impacted by climate change or its drivers, and of those 16 of which are also linked to the health of children, adolescents, and youth (See Table 2). In 2021, of 89 ministry of health survey respondents, only 3 low and low-middle income countries indicated they were trained on climate-resilient water safety planning and only 2 on climate-resilient sanitation safety plans in accordance with the WHO Guidelines for Drinking-Water Quality¹⁵, despite that these are essential to public health response to emergencies and disasters, and to limiting water-borne zoonotic pathogens¹⁶, and that access to water is a determinant of nutrition and a human right.

Youth participation is essential to strengthening global climate change decision-making forums^{2,17,18}, and ensuring climate action promotes health and well-being. Organizations of youth stakeholders are growing, worldwide. Existing organizations providing necessary engagement spaces include the UNFCCC youth constituency **YOUNGO** and the **YOUNGO Health Working Group**, the **UN Major Group for Children and Youth** and the **Global Youth Health Caucus**, the

International Federation of Medical Students Associations, the **WHO Youth Council**, and the **Global Youth Biodiversity Network**. In 2020, the UN Secretary General established a **Youth Advisory Group on Climate Change**, while the UN further reinforced its intention to support youth by a resolution of the **76th UNGA** in September 2022 establishing a **UN Youth Office** in the secretariat dedicated to youth issues in the areas of peace and security, sustainable development and human rights.¹⁹ At the same time, UN entities committed to ‘step up’ action on the rights of children, youth and future generations to climate justice and a healthy environment, including through supporting their meaningful participation in decision-making at all levels.²⁰ In September 2023, the panel on youth and human rights at the **54th session of the Human Rights Council** will be dedicated to ‘young people’s engagement with climate change and global environmental decision-making processes.’²¹ Country-level initiatives for youth leadership are also developing. Governments that engage and advocate for child-inclusive climate governance are more likely to implement climate action.¹

Key Messages to UNFCCC parties on Climate Change, Health, and Intergenerational Equity:

It is critical that UNFCCC Parties recognize **that the stabilization and reduction of atmospheric greenhouse gas concentrations at levels consistent with the Paris Agreement temperature goal promotes health and well-being, particularly for children, adolescents, youth, and future generations** many of whom are at risk from and already experiencing the adverse effects of climate change. New decisions adopted under the UNFCCC should aim to strengthen the focus on intergenerational equity in policy and implementation.

The Paris Agreement strengthened the rights-based approach to global climate governance in 2015 by calling for all States to respect, promote and consider their human rights obligations when taking climate action, including the right to health, the rights of children, as well as gender equality and intergenerational equity. UNFCCC Parties should **welcome UNGA resolution 76/300 recognizing the human right to a clean, healthy, and sustainable environment in their decisions to build momentum for ambitious, rights-based climate action**. Further, the UNFCCC Conference of the Parties should recognize that this right is inextricably linked to all other human rights including the right to health, and that the achievement of the ultimate objectives of the UNFCCC, including the protection of human health and welfare from the adverse effects of climate change depends on ambitious, rights-based climate action.

At the international level, the following key policy advancements on intergenerational equity under the UNFCCC would promote and strengthen public and global health:

Improve implementation:

- integrate **references to the human rights to health and a healthy environment**, to intergenerational equity, and to the health of children, adolescents, and youth **in communications** and reporting by Parties
- include **health co-benefits and reference to the right of children in NDCs**
- emphasize the risks faced by children, adolescents, and youth in prioritization and provision of technical support under the **Santiago Network**
- add a specific category associated to children, adolescents, and youth under **non-economic losses and damages**
- include a youth-specific target in the upcoming **Global Goal on Adaptation**
- **support youth constituencies**, youth priorities, and youth engagement in designing implementation of the Paris Agreement

Improve assessment:

- include **children, adolescents, and youth in vulnerability and impact assessments**, using evidence on the environmental burden of disease from the **WHO Global Health Observatory** and on vulnerability mapping from **UNICEF’s Child Climate Risk Index**
- strengthen use of **age-disaggregated, gender-disaggregated, and localized data, including at the regional level**



Practice

Public health practice can reinforce implementation of the UNFCCC and climate-resilient development. In resolution (73/2) the UNGA called on the WHO to “promote healthy communities by addressing the impact of environmental determinants on non-communicable diseases, including air, water and soil pollution, exposure to chemicals, climate change and extreme weather events, as well as the ways in which cities and human settlements are planned and developed...”²² At the same time, stronger climate policy and action to address the adverse impacts of climate change on and by children, adolescents, and youth at global and national levels supports public health.

The human right to health is at the core of the WHO mandate. At the national level, the WHO works with a range of partners to avert, minimize, and address the impacts of climate change on health. It is essential for countries to strengthen climate-informed public health for children, adolescents, and youth and the wider population by:

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- integrating a **child health-sensitive approach in national climate policies** and plans (NAPs, disaster risk reduction, water, sanitation, and hygiene (WASH), air pollution, climate finance, sustainable energy, and health and nutrition)^{12,14}
- adopting and **implementing the Sendai Framework for Disaster Risk reduction**
- improving **inter-ministerial training on water safety plans**²³, diversifying water sources, ensuring WASH services minimize climate risks, and increasing household water storage facilities, and integrating water resource management at national and sub-national levels²
- investing in **resilient infrastructure that reduces long-term disruption to children’s learning** process
- investing in means to address **IPCC projections for child-sensitive, climate change-associated disease** prevalence, such as malnutrition, diarrhoea, and malaria⁴ and to provide psychosocial care following disasters,² as well as investing in quality maternal and newborn care services
- working towards **universal health coverage** and ensuring social protection systems are well-connected and shock-responsive¹
- improving **education of children, adolescents, and youth on environmental stewardship, climate change, and sustainable lifestyle choices**²
- conducting national assessments and monitoring of environmental health of children, adolescents, and youth aimed at identifying and taking action on areas of concern, with emphasis on an **environmentally comprehensive One Health** approach.

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