

Office of the United Nations High Commissioner for Human Rights
29 August 2016

Response to UNFCCC Secretariat request for submissions on: Nairobi Work Programme on impacts, vulnerability and adaptation to climate change - health impacts, including occupational health, safety and social protection, FCCC/SBSTA/2016/2, para 15(a) (i).

Regarding the Nairobi work programme on impacts, vulnerability and adaptation to climate change (NWP), this submission draws on findings and conclusions of the Report of the Office of the High Commissioner for Human Rights (OHCHR) to the thirty-second session of the Human Rights Council (HRC), *Analytical study on the relationship between climate change and the human right of everyone to the enjoyment of the highest attainable standard of physical and mental health*, 6 May 2016, A/HRC/32/23. This analytical study was submitted pursuant to HRC resolution 29/15, in which the Council requested OHCHR to conduct a detailed analytical study, in consultation with relevant stakeholders, on the relationship between climate change and the human right of everyone to the enjoyment of the highest attainable standard of physical and mental health. This submission highlights the findings of this study and related work of OHCHR in relation to the NWP regarding climate change and relevant health impacts, occupational risks, and social protection. OHCHR recommends that, in addition to continuing to build understanding and assess impacts of climate change on health, greater action is needed to address the key issue of health as highlighted in the NWP so as to fulfil human rights obligations, strengthen adaptive capacities, and integrate a gender perspective in mitigation and adaptation efforts.

Climate change and the human right to health

States and other duty bearers have individual and collective legal obligations to protect human rights. The right to health is among the universal, indivisible rights guaranteed to all people. This right depends on fulfilment of other rights, such as the rights to safe working conditions, adequate housing, food, water and sanitation, and education.¹ Among others, the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights (CESCR), the Convention on the Rights of the Child, the Convention on the Elimination of All Forms of Discrimination against Women, and the Declaration on the Rights of Indigenous Peoples oblige states to respect, promote, protect and fulfil the right to health.² In particular, the CESCR General Comment 14 defines the right to health and outlines related obligations to guarantee for all persons the right to live a life in dignity.³

Internationally, there is growing recognition of the specific interlinkages between climate change and the human right to health.⁴ Elements of this relationship are recognized in the text of the United Nations Framework Convention on Climate Change. Article 1 defines the adverse effects of climate

¹ In paragraph 3 of its general comment 14 (2000) on the right to the highest attainable standard of health, the Committee on Economic, Social and Cultural Rights states that the right to health is closely related to and dependent upon the realization of other human rights.

² HRC, *Analytical study on the relationship between climate change and the human right of everyone to the enjoyment of the highest attainable standard of physical and mental health*. A/HRC/32/23. (2016).

³ CESCR, *General Comment No. 14: The Right to the Highest Attainable Standard of Health (Art. 12 of the Covenant)*. E/C.12/2000/4. (2000).

⁴ See e.g. HRC resolutions 29/15 and 32/33.

change as changes to the physical environment resulting from climate change that have significant deleterious effects on human health and welfare. Article 3 calls upon Parties to the Convention to take measures to minimize the causes of climate change and minimize its adverse effects, including on health. Article 4 further calls for Parties to minimize the public health implications of mitigation and adaptation projects and measures they undertake, using relevant tools such as impact assessments.

The first direct reference to human rights in the context of the United Nations Framework Convention on Climate Change (UNFCCC) was made in 2010, when decision 1/CP.16 referred to HRC resolution 10/4, which recognizes the adverse effects of climate change on the effective enjoyment of human rights and called upon all States to ensure respect for human rights in their climate actions.⁵ The Preamble to the Paris Agreement to the UNFCCC 1/CP.21 expands upon this language calling for all States when taking action to address climate change, to “respect, promote and consider their respective obligations on human rights” including the right to health.

Countries that have ratified international legal instruments relating to climate change and/or the right to health are obliged to implement them and to translate their obligations into national law. States, therefore, have clear obligations to take measures to prevent and remedy the negative impacts of climate change on the right to health, including with regard to the environmental and social determinants of health. This was explicitly recognized by the Committee on the Rights of the Child in its general comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health, in which the Committee calls on States to take measures that address the dangers and risks that environmental pollution poses to children’s health in all settings, and to implement environmental interventions that “should, inter alia, address climate change, as this is one of the biggest threats to children’s health and exacerbates health disparities”.

Recognizing the interlinkages between health and climate, HRC resolution 29/15 called for OHCHR to organize a panel discussion and draft an analytical study on climate change and its impacts on the right to health. HRC resolution 32/33 “encourage[es] States, as appropriate, to integrate policies on health and human rights in their climate actions at all levels, including their national plans of action for climate mitigation and adaptation”. These resolutions and legal instruments establish a strong normative and political basis for integrating human rights, including the right to health in climate action. Human rights standards require action to prevent to the greatest extent possible the foreseeable negative impacts of climate change, to provide access to remedy for those harmed by climate change and to ensure access to information, participation, transparency, accountability, equity, and non-discrimination in the context of climate actions, including adaptation. Failure to take urgent action, in the form of mitigation and adaptation, to protect those most vulnerable from the negative impacts of climate change breaches State human rights obligations and threatens the enjoyment of the right to health for all.⁶ This can be clearly understood through a careful analysis of current and projected impacts of climate change on health.

Current situation

The findings of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) indisputably confirm that climate change is occurring and that human-produced greenhouse

⁵ HRC, *Analytical study on the relationship between climate change and the human right of everyone to the enjoyment of the highest attainable standard of physical and mental health*. A/HRC/32/23. (2016).

⁶ OHCHR, *Key Messages on Human Rights and Climate Change*. (2015).

gas emissions are a primary cause. They also demonstrate that the impacts of climate change pose a clear threat to the full and effective enjoyment of human rights, including the right to health. The effects of climate change will include increasingly frequent extreme weather events and natural disasters, rising sea levels, floods, heatwaves, droughts, and the spread of tropical and vector-borne diseases.⁷ These extremes alter ecosystems, disrupt food production and water supply, damage infrastructure and settlements, increase morbidity and mortality, and contribute to the displacement of peoples. Thus, climate change directly and indirectly threatens the full and effective enjoyment of a range of human rights, including the rights to life, water and sanitation, food, health, housing, self-determination, culture and development.⁸

Climate change impacts health in a number of ways: directly, through extreme weather or changes in temperature; and indirectly through changes to natural systems that result in crop failures, expanding disease vectors, and displacement of persons. These mechanisms contribute to human vulnerability to disease and injury, diminished occupational and mental health, and threats due to resource scarcity and population movement. According to the Fifth Assessment Report of the IPCC climate change will result in greater risk of injury, disease, and death due to increased heat and fire; higher risk of under-nutrition due to decreased food availability and accessibility; lowered work capacity and productivity; and greater risk of food- and water-borne diseases and vector-borne diseases.⁹ Globally, 400,000 premature deaths have been linked to climate change¹⁰ and approximately 250,000 additional deaths are expected to result from increased instances of malnutrition, malaria, diarrhoea, and heat stress alone.¹¹ Furthermore, unmitigated climate change could undermine global development by “reducing average global incomes roughly 23 per cent by 2100 and widening global income inequality, relative to scenarios without climate change.”¹² The specific health risks posed by climate change are further outlined below.

Climate change and health risks¹³

Increase in premature deaths and disease

1. **Temperature increase:** By the year 2030, increases in seasonal temperatures as well as frequency and intensity of heatwaves are projected to result in an additional 38,000 deaths per year, with 100,000 by 2050. Increased temperatures are also expected to contribute to respiratory and cardiovascular disease.
2. **Air pollution:** Climate change will exacerbate some forms of air pollution, which causes approximately 4.3 million deaths annually, with ambient air pollution causing 3.7 million deaths. Air pollution also contributes to cardiovascular and respiratory disease, autism, and asthma.¹⁴

⁷ IPCC, *Climate Change 2014: Synthesis Report*.

⁸ HRC, *Analytical study on the relationship between climate change and the human right of everyone to the enjoyment of the highest attainable standard of physical and mental health*. A/HRC/32/23. (2016).

⁹ IPCC, *Climate Change 2014: Impacts, Adaptation, and Vulnerability*.

¹⁰ DARA, *Climate Vulnerability Monitor: A Guide to the Cold Calculus of a Hot Planet*, 2nd ed. (2012).

¹¹ WHO, *Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s* (2014).

¹² M. Burke, S.M. Hsiang and E. Miguel, “Global non-linear effect of temperature on economic production”, *Nature*, vol. 527, pp. 235-239 (12 November 2015).

¹³ Unless otherwise noted, the following findings are derived from OHCHR’s *Analytical study on the relationship between climate change and the human right of everyone to the enjoyment of the highest attainable standard of physical and mental health*. A/HRC/32/23 (2016).

¹⁴ WHO, *Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s* (2014).

3. **Extreme weather events and natural disasters:** Climate change will lead to increasingly frequent and intense extreme weather events such as floods, hurricanes, heatwaves, landslides, droughts, and wildfires. These events directly impact health, by causing injury, disability, death, and infectious disease transmission, among others. These events will also affect fresh water supplies and food production, which increase the risk of disease and malnutrition.
4. **Destruction of healthcare infrastructure:** Natural disasters destroy water and sanitation infrastructure, contributing to outbreaks of water and insect-borne diseases. Such climate and weather events will further impact healthcare by destroying medical facilities and other property.
5. **Disease transmission:** Climate change will lengthen the transmission season and expand the geographic range for many diseases. This is projected to result in 48,000 additional deaths for children under 15 years from diarrhoea and 60,000 from malaria by 2030.

Diminished well-being

6. **Toll on mental health:** People who experience loss of homes or loved ones or exposure to life-threatening conditions face higher risks of developing stress and anxiety-related conditions, such as post-traumatic stress disorder and depression. Gradual effects on the environment, human systems, and infrastructure can also contribute to long-term decline of mental health.
7. **Threats to nutrition:** Although climate change will lead to increased food production in some areas, the overall affect will be negative.¹⁵ Climate change will affect crop yields, loss of livelihood, increases in poverty, and reduced access to food. A 2°C increase in average global temperature is projected to leave between 100 million and 400 million more people at risk of hunger and lead to over 3 million deaths to malnutrition annually. In addition to risk of starvation, climate change will also contribute to morbidity and mortality through increased incidence of other diseases and severe child stunting.

Occupational health risks¹⁶

8. **Heat risks:** Excessive workplace heat will continue to increase with climate change. This poses increased risks of heat exhaustion, heatstroke, and death. Employers have been and will increasingly be required to cut working hours to protect workers from heat extremes. In addition to threats to workers' health, workers may suffer income loss and vulnerable economies will lose valuable working hours. Both family income and economic output will likely slow.
9. **Hazardous environments:** Extreme weather events pose greater risks for both outdoor and indoor workers, as well as emergency workers. It may also affect the mental health of workers. For example, farmers who lose harvests to climate change may become suicidal.
10. **Vulnerability to vector-borne diseases:** Farmers will be at greater risk of vector-borne diseases, which will increase in frequency as transmission seasons expand and lengthen. Farmers and other outdoor workers may be forced to work during cooler periods around dawn and dusk, when insect bites are more likely, thus further increasing their vulnerability to vector-borne disease.
11. **Exposure to hazardous chemicals:** Increased workplace temperatures will result in chemicals evaporating more quickly. This will lead to increased amounts of chemicals inhaled by workers and a greater risk of poisoning.

Displacement

12. **Extreme weather events and natural disasters:** Between 2005 and 2015, over 1.5 billion people were affected by natural disasters. During the last seven years, 22.5 million people are estimated

¹⁵ WHO, *Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s* (2014).

¹⁶ UNDP, *Climate Change and Labour: Impacts of heat in the workplace*. (2016).

to have been displaced annually by climate or weather-related disasters. These numbers are expected to grow. For example, heat extremes and other effects of climate change will impact where people can live, driving many to migrate both internally and internationally in search of livelihoods. Such movement creates additional challenges such as vulnerability to disease and problems accessing quality health care services.

Other risks

13. **Insecurity:** Climate change has also been linked to forced migration, insecurity, and violent conflict, all of which pose threats to health.
14. **Water:** A 2°C increase in average global temperature may result in one to two billion people worldwide lacking access to adequate water supplies.
15. **Biodiversity:** Climate change will contribute to decreased biodiversity, which will negatively impact supplies and development of medicines as well as the traditional livelihoods and cultural practices of indigenous peoples.
16. **Resource allocation:** Climate change and its impacts may cause governments to divert resources from social welfare systems to dealing with the immediate impacts of climate change, including disaster response; thereby, negatively impacting the ability of States to allocate sufficient resources to the fulfilment of human rights obligations.

Climate Justice

The Rio Declaration on Environment and Development, the Vienna Declaration and Programme of Action, and ‘The Future We Want’ all call for the right to development, which is articulated in the UN Declaration on the Right to Development, to be fulfilled so as to meet equitably the developmental and environmental needs of present and future generations. Climate change threatens this commitment, particularly to future generations who have contributed nothing to climate change but will suffer its worst impacts. Indeed, while the impacts of climate change affect all people, certain populations are affected disproportionately including peoples or communities that by the nature of, *inter alia*, geography, poverty, gender, age, disability, and cultural or ethnic background are already suffering from unequal access to the basic necessities for a life of human dignity.

For instance, the IPCC reports that climate-change induced undernutrition mainly occurs in areas that are already food insecure. The *Lancet* Commission on Health and Climate Change has affirmed that certain population groups are particularly vulnerable to the health effects of climate change due, *inter alia*, to existing socioeconomic inequalities, cultural norms and intrinsic psychological factors.¹⁷ The World Bank has also emphasized that poor people are disproportionately affected by climate-related shocks and that climate change could result in an additional 100 million people living in extreme poverty by 2030.¹⁸ These all highlight the fact that climate change is harming most, those who have contributed least to its causes, including children the poor, and future generations; thereby, perpetuating inequality and injustice.

1. **Poor communities** - Diseases like malaria and diarrhoea that are expected to increase due to climate change disproportionately affect the poor.
2. **Gender inequality** – Women and children are disproportionately affected by displacement and other effects of climate and weather-related disasters. Women suffer higher mortality rates during

¹⁷ *Lancet* Commission, “Health and climate change”.

¹⁸ See S. Hallegatte and others, *Shock Waves: Managing the Impacts of Climate Change on Poverty*, Climate Change and Development Series (Washington, D.C., World Bank, 2016).

natural disasters when they experience other gendered inequalities in society. Women's access to healthcare following natural disasters and environmental stress are often directly correlated with societal status.

3. **Children** - By nature of their development, children are in particularly vulnerable situations with regard to changes in weather and climate. For instance, they are more likely than adults to die of natural hazards and are more susceptible to diseases, malnutrition, or injuries. Many countries that are particularly vulnerable to climate change also have higher national proportions of children.
4. **Migrants** - Climate change is a common factor in the migration of people. Although movement can be an adaptation strategy, migration also leaves people more vulnerable to health risks due to their reduced access to health-care facilities, goods, and services; loss of social networks and assets; and diminished access to key determinants of health.
5. **Indigenous peoples** - Many indigenous peoples, particularly those reliant upon their immediate environment for subsistence, will be disproportionately impacted by climate change. Environmental degradation combined with existing patterns of economic hardship, marginalization, and discrimination will contribute to diminished mental and physical health.
6. **Minorities** - When minority communities experience systemic discrimination and impoverishment, they are likely to suffer disproportionately from the negative impacts of climate change. This is exacerbated by factors such as exclusion from decision-making processes, inhabitation of climate-vulnerable housing and territories, unequal access to remedies and social welfare systems, and other factors.

Failure to adequately address the disproportionate impacts of climate change on these groups risks entrenching cycles of poverty and marginalization. Countries with strong social welfare systems that take appropriate adaptation measures, in consultation with affected persons, will be better able to mitigate these risks. State obligations to protect the health and human rights of all persons without discrimination, particularly the most vulnerable, require Parties to take effective action to address the health impacts of climate change and to cooperate internationally pursuant to their common but differentiated responsibilities to do so.

Recommendations

The NWP has established itself as an important mechanism for furthering national and international work on climate change assessment and adaptation. It has been useful in linking actors and sharing knowledge for climate adaptation, ultimately expanding the base of knowledge and information. In addressing the key issue of health, the NWP has helped establish understanding that the risk of more frequent and intense extreme weather events will increase the risk of hazard-related diseases and deaths, and that changes in sea levels may create environments with greater risk of waterborne diseases such as malaria and dengue fever.¹⁹ The NWP also compiled best practices on building an actionable knowledge base, developing multi-sector and multi-level adaptation plans and actions, and scaling up actions. Among many others, outcomes have included publication of papers, case studies, and other topical materials; joint meetings regarding best practices for implementing a gender-sensitive approach and incorporating traditional and indigenous knowledge; tools for understanding

¹⁹ UNFCCC, *Synopsis series Nairobi work programme, human health and adaptation planning processes: overview, good practices and lessons learned*. (2016).

and assessing climate change impacts, vulnerability, and adaptation; as well as action pledges and the aligned engagement of 315 partner organisations.²⁰

The following recommendations aim to build upon these successes, to better inform climate mitigation and adaptation for the protection of human rights including the right to health, and to fulfil the goals of the NWP in assisting all Parties, particularly developing countries, to better understand, assess, and adapt to the effects of climate change. Since climate change directly impacts on human rights, including the right to health, States have an affirmative obligation to take measures to mitigate climate change; to prevent negative human rights impacts; to ensure that all persons, particularly those in vulnerable situations, have adequate capacity to adapt to changing climactic conditions; and to regulate the private sector in order to mitigate its contribution to climate change and ensure respect for human rights. Article 7 of the Paris Agreement emphasizes that adaptation “should be country-driven, gender-responsive, participatory and full transparent, taking into consideration vulnerable groups and communities with a view to integrating into relevant socio-economic and environmental policies.”²¹ The Agreement further states that Parties should act with consideration for the impacts borne by people in vulnerable situations and encourages UN agencies to support the efforts of Parties.

In line with these international legal obligations and in adherence to the objectives and mandate of the NWP, OHCHR respectfully submits the following recommendations to the UNFCCC. These recommendations are in the interest of extending the work of the NWP and assisting Parties in assessment of and adaptation to the health impacts of climate change.

NWP objective ²²	OHCHR recommendation ²³
Regarding the thematic issue of health	<ol style="list-style-type: none"> 1. Take immediate action to fulfil minimum core obligations on the right to health by providing universal health coverage and guaranteeing a social protection floor for all persons. 2. Develop sustainable and resilient health systems and infrastructure. 3. Improve emergency response and early-warning systems. 4. Integrate climate change and migrants’ health into development, health and disaster risk reduction, and management policies. 5. Prioritize climate adaptation and mitigation measures that lead to direct reductions in the burden of ill-health, enhance community resilience, alleviate poverty and reduce inequality.
Supporting climate adaptation efforts	<ol style="list-style-type: none"> 6. Strengthen technical, organizational, and institutional capacity to develop strategies and plans to protect health from climate risks.²⁴ 7. Integrate policies on health and human rights in their climate actions at all levels, including their national plans of action for climate mitigation and adaptation 8. Ensure participation of affected persons, particularly those most vulnerable to climate impacts, in policy-making processes related to climate mitigation

²⁰ UNFCCC, *Activities undertaken by regional centres and networks on adaptation planning processes and structures for linking national and local adaptation planning. Note by the secretariat.* FCCC/SBTA/2016/INF.4. (2016).

²¹ UNFCCC, *Paris Agreement.* (2015).

²² Unless otherwise noted: UNFCCC, *Nairobi work programme on impacts, vulnerability and adaptation to climate change.* FCCC/CP/2013/10/Add.2. (2012).

²³ Unless otherwise noted: OHCHR, *Key Messages on Human Rights and Climate Change.* (2015).

²⁴ WHO, *Strengthening Health Resilience to Climate Change.* (2016).

	<p>and adaptation.</p> <p>9. Encourage national and sub-national policies on climate action that address health challenges, such as reducing air pollution by establishing and enforcing industrial and transport efficiency clean-fuel standards or creating and preserving green spaces.²⁵</p>
Integrating gender issues in climate action	<p>10. Mainstream a gender perspective into health and climate policy so as to include “consideration of gender differences in vulnerability, adaptation assessments, routine monitoring of sex-disaggregated data for health outcomes, and inclusion of gender-responsive elements such as ensuring that activities and budgets engage both women and men in all levels of the decision-making process.”²⁶</p>
Mobilizing resources to protect the vulnerable	<p>11. Cooperate based on the principle of common but differentiated responsibility to ensure adequate funding of, and research into, mitigation and adaptation measures that will help the poorest countries and those persons, groups and peoples most at risk.</p>

²⁵ WHO, *Promoting Health While Mitigating Climate Change*. (2016).

²⁶ WHO, *Promoting Health While Mitigating Climate Change*. (2016).