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UNDP Observations – Climate Change and the Right to Health

This document is provided to the United Nations Office of the High Commissioner for Human Rights in response to the invitation to provide inputs for their detailed 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 (abbreviated here as the right to health), in light of the Human Rights Council Resolution A/HRC/29/15 (2015).

This document contains the observations of the United Nations Development Programme (UNDP) in relation to the abovementioned detailed analytical study and urges consideration of the following five concerns, among other issues, in the final report to be prepared: (1) Workplace Health and Productivity, (2) Health Co-Benefits of Climate Change Mitigation, (3) Hunger and Food Security, (4) Infectious Diseases, and (5) Extreme Events and Disaster Risk Reduction.

Of particular concern for UNDP is the extent to which climate change, which plays a role in undermining the enjoyment of the right to health in the areas highlighted in these observations, is itself also disproportionately negative for developing countries, and for poor and vulnerable groups. Given the scale of some of the health concerns highlighted, such as workplace health, the implications of climate change for the right to health are likely to undermine the strength of human development progress at regional and global levels. This will likely present a key challenge for attaining the Global Sustainable Development Goals by 2030. Action on climate change provides a number of important opportunities to strengthen the right to health, in particular through ambitious climate change mitigation actions and the co-benefits of such measures for reducing air pollution and its large-scale health burden, particularly in developing regions.

1. Workplace Health and Productivity

Climate change is altering thermal conditions in the workplace, increasing the number of hot days, hot nights, and extreme heat experienced, which is a major health risk for people working out of doors.¹ Due to the importance of the agricultural sector for developing and lower-income countries, a significant proportion of the global workforce is outdoors. Indeed, the majority of the labour force of the world's poorest groups are either working outdoors or indoors under ineffectively climate controlled conditions.² Occupational health risks from heat extremes include heat stress, heat exhaustion and even severe clinical heat stroke and death.³ The risk of mortality and morbidity during periods of extreme heat, particularly for vulnerable urban populations and those working outdoors in urban or rural areas, was highlighted as a high confidence key risk by the latest Intergovernmental Panel on Climate Change (IPCC) report on the impact of climate change.⁴

¹ IPCC AR5 WGII, (2014) Summary for Policymakers, available at: http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgii_spm_en.pdf

² Kjellstrom et al. (2009) The direct impact of climate change on regional labor productivity, available at: <http://www.ncbi.nlm.nih.gov/pubmed/20007118>

³ Parsons, K., (2014) Human thermal environments: The effects of hot, moderate and cold temperatures on human health, comfort and performance (3rd edn.), New York: CRC Press.

⁴ IPCC AR5 WGII, (2014) Summary for Policymakers, available at: http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgii_spm_en.pdf

As heat levels rise, labor productivity is also reduced in many workplaces, in particular for agriculture, industry and for non-climate controlled office-based jobs.⁵ Labour productivity was a primary indicator for Millennium Development Goal 1 on reducing extreme poverty, and those regions with the least improvement in labour productivity also demonstrated the least progress in poverty reduction, in particular Sub-Saharan Africa.⁶ Exposure to these health and productivity risks is already notable, with the annual number of days at or above a WBGT thermal heat measure of 29°C increasing in parts of South East Asia from approximately 10 in 1980 to 70 in 2010.⁷ Exceeding 2 degrees Celsius of global warming is estimated to cause a reduction of over 4% in effective work hours for Vietnam, for example.⁸ The effects of climate change on occupational health, and productivity, should be addressed through both mitigation, to reduce the extent of risks in the future, and adaptation, to improve the resilience of communities exposed to increasingly adverse thermal conditions in the workplace.

2. Health Co-Benefits of Climate Change Mitigation

Action to address climate change can improve enjoyment of the right to health considerably. In 2014, the World Health Organisation (WHO) revised estimates of air pollution mortality indicating that in 2012 approximately 7 million deaths per year were attributable to indoor and outdoor pollution, predominantly in low- and middle- income countries, with differentiated impacts on men, women and children.⁹ Incomplete combustion of fuels used for heating, cooking, transport and industry, contribute to air pollution, both indoors and outdoors, leading to major risks for population health, exceeding the death toll of tobacco or alcohol. Effects of indoor pollution are particularly linked to poverty, and an inability to access modern forms of energy for basic household needs is a significant health penalty for the world's poorest groups.¹⁰

Renewable energy technologies generate power with minimal or no air pollution, thus the wider application of these, particularly in developing countries, would bring down the health burden of air pollution considerably. This represents a significant incentive for low-income and emerging economies and Africa, Asia and Latin America to engage on climate change mitigation in order to take advantage of the opportunity for securing large scale health co-benefits from these measures. Ambitious climate change action supported by a strong international cooperation framework would greatly increase low emissions energy production worldwide. Given the access barriers to technology, and resource and capacity constraints, the support of international cooperation for developing countries to respond to climate change remains vital for enabling the fuller promotion of the right to health through climate action.¹¹

3. Hunger and Food Security

Climate change will have a negative impact on hunger and food security, increasing agricultural stresses and shocks, and negatively affecting the right to health. The IPCC findings indicate that the negative impacts of climate change on crop yields have been more common than positive impacts.¹² A study of the UN Special Procedures drawing on IPCC findings found that in the future there could be up to a 29% increase in moderate nutritional stunting and up to a 62% increase in severe stunting in five regions in South Asia and Sub-Saharan

⁵ Kjellstrom et al., (2015) Climate Change and increasing heat impacts on Labor Productivity, available at: <http://www.thecvf.org/wp-content/uploads/2015/05/labour.pdf>

⁶ UN DESA, (2012) The Millennium Development Goals Report, New York: United Nations.

⁷ Kjellstrom et al., (2013) Mapping occupational heat exposure and effects in South-East Asia: Ongoing time trends 1980–2009 and future estimates to 2050, Industrial Health, available at: https://www.jniosh.go.jp/en/indu_hel/doc/IH_51_1_56.pdf

⁸ Ibid.

⁹ World Health Organization, (2014) Burden of disease from Household Air Pollution for 2012, Geneva: World Health Organization.

¹⁰ IEA, UNDP, UNIDO, (2010) Energy Poverty – How to make modern energy access universal? Available at: http://www.undp.org/content/undp/en/home/librarypage/environment-energy/sustainable_energy/energy_poverty_howtomakemodernenergyaccessuniversal.html

¹¹ UNDP, (2011) Catalyzing Climate Finance: A Guidebook on Policy and Financing Options to Support Green, Low-Emission and Climate-Resilient Development —Version 1.0, New York: UNDP.

¹² IPCC AR5, WGII, (2014) Summary for Policymakers, available at: http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgii_spm_en.pdf

Africa compared to a scenario without climate change.¹³ Volatility and appreciation of fossil fuel prices through logistical and production costs.¹⁴

Action on climate change that reduces dependence on volatile and appreciating fossil fuel-based energy sources could therefore also reduce risks for food insecurity. Food insecurity and hunger are a major to higher incidences of infectious disease of multiple causes and of disabilities. In particular, under-nutrition as an underlying cause of child deaths associated with diarrhea, pneumonia, malaria, and measles.¹⁵ The effects of climate change on agriculture and food security can be addressed through reinforcing the resilience of vulnerable communities through appropriate adaptation to climate change and through global mitigation action. For example, the first phase of the UNDP supported Philippines Programme for Rice Cultivation reduced greenhouse gas emissions in the Philippines by 36,455,063 tons of carbon dioxide, whilst improving food and livelihood security.¹⁶ UNDP has undertaken considerable work in the last decade on climate risks with governments and communities to incorporate actions to protect people's lives and livelihoods, where climate assessments have reduced the impacts of drought across Africa within the sectors of agriculture, water and sanitation, food security and environment.¹⁷

4. Infectious Diseases

Climate change directly exacerbates the burden of communicable diseases in ways that undermine the enjoyment of the right to health and are a particular concern for poor and vulnerable groups. Increasingly warm and wet conditions are expanding the range and seasonal distribution of vector-borne diseases, such as malaria, dengue and yellow fever.¹⁸ Increased incidences of drought and flooding can also lead to epidemics of water-borne diseases, including cholera.¹⁹ The WHO estimates that between 2030 and 2050 climate change will cause approximately 48 000 and 60 000 additional deaths due to diarrhoea and malaria respectively.²⁰

Increased risks to the enjoyment of the right to health through effects on infectious diseases brought about by climate change can be addressed through a range of measures, including improvements to public health systems, increased access to health insurance for vulnerable groups, enhanced climate and weather monitoring and warning systems, the promotion of health education, immunization campaigns, and improved access to clean water and sanitation.

5. Extreme Events and Disaster Risk Reduction

Climate change increases the health dangers through its influence on extreme weather events, including greater risks for injury, disability, death and infectious disease transmission. Climate change has and will continue with medium to high confidence to increase the frequency and severity of extreme weather events such as heavy rainfall and flooding or extreme heat and drought.²¹ Between 2005 and 2015, more than 1.5 billion people were affected by disasters, with women, children and people in vulnerable situations being

¹³ IPCC AR5, WGII, (2014) Summary for Policymakers, available at: http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgii_spm_en.pdf

¹⁴ IPCC AR5, WGII, Report, in Office of the United Nations High Commissioner for Human Rights, (2015) The Effects of Climate Change on the Full Enjoyment of Human Rights, available at: <http://www.thecvf.org/wp-content/uploads/2015/05/humanrightsSRHRE.pdf>

¹⁵ The Hague Centre for Strategic Studies and TNO, (2011) Food Security, Vision Paper No 2011•02.

¹⁶ Soezer, A., (2015) Why rice farmers are key to tackling climate change in the Philippines, available at: <http://www.undp.org/content/undp/en/home/blog/2015/6/17/Greening-rice-cultivation-in-the-Philippines-benefits-the-country-and-our-world.html>

¹⁷ United Nations Development Programme, (2015) UNDP and the HYOGO Framework for Action: 10 Years of Reducing Disaster Risk, New York: United Nations Development Programme.

¹⁸ Grover, A., (2007) Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, U.N. Doc. A/62/214, 100.

¹⁹ Ibid.

²⁰ The World Health Organisation (2015) Fact Sheet N°266: Climate Change and Health, available at: <http://www.who.int/mediacentre/factsheets/fs266/en/>

²¹ IPCC WGII, (2012) SREX, available at: http://www.ipcc-wg2.gov/SREX/images/uploads/SREX-SPMbrochure_FINAL.pdf

disproportionately affected.²² The risk of mental disorders and communicable diseases is heightened by displacement.²³

The added risks of climate-related disasters for the enjoyment of the right to health underscores the importance of responding through effective adaptation measures and implementation of The Sendai Framework on Disaster Risk Reduction 2015-30, which the UNDP is committed to implementing.²⁴

²² United Nations Office for Disaster Risk Reduction, (2015) Sendai Framework for Disaster Risk Reduction 2015-2030, Geneva: United Nations Office for Disaster Risk Reduction, available at: http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf

²³ The WHO, (2015) Fact Sheet N°266: Climate Change and Health, available at: <http://www.who.int/mediacentre/factsheets/fs266/en/>

²⁴ UNDP, (2015) UNDP announces '5-10-50' – new global programme in support of disaster resilience, available at: <http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2015/03/17/undp-announces-5-10-50-new-global-programme-in-support-of-disaster-resilience/>