



Health impacts of climate change: key messages for COP26 from the ENBEL project

Climate action helps protect human health. World leaders and policymakers at all levels must recognize that improved health is a clear result of reducing emissions.

Limiting global warming to 1.5°C, compared with 2°C, can significantly reduce the number of people exposed to a range of climate-related risks, including heatwaves.

The EU Horizon 2020 ENBEL project - Enhancing Belmont Forum Research Action to support EU policy making on climate change and health - is coordinating a network of international health and climate change research projects funded by the Belmont Forum and the EU. We have four key science-based messages for COP26 leaders:

- 1) **Mitigation promotes healthy wellbeing and is imperative for reducing the impacts of climate change. Reducing greenhouse gases can have substantial health co-benefits, e.g., from reduced air pollution, enhanced physical activity and healthier diets.**
 - Air pollution is the **largest environmental risk** for human health today, causing about 7 million premature deaths every year and having huge economic consequences ([World Bank 2020](#)). Since air pollutants and greenhouse gases to a large extent have the same source – burning of fossil fuels – cutting the use of fossil fuels will mitigate global warming as well as reduce air pollution.
 - Global warming comes with a ‘**double climate penalty**’: Not only can global warming lead to a deterioration of air quality in itself, for instance via impacts on emission rates and the fate of the emissions in the atmosphere, but hotter temperatures can also worsen the physiological effects of air pollution.

- 2) **Increasing temperatures can lead to reduced worker productivity due to heat stress and more so in already hot regions. Generally, reducing the health impacts of climate change will likely avoid large socio-economic costs.**
 - A large fraction (~ 42%) of the estimated global mitigation costs of achieving the 2°C global warming target could be offset by the avoided adverse impacts of heat stress on worker productivity at higher warming levels, according to a [study by Anton Orlov et. al.](#)
 - As the climate warms, outdoor workers are at particular risk of health impacts from climate change, specifically from acute kidney injury due to heat stroke, and kidney injury over the harvest leading to chronic disease. The [PREP](#) project and the [Adelante Initiative](#) have already shown that it is possible to protect workers from hospitalizations due to kidney injury, reduce injury over a harvest and that taking the steps to do so – by provision of hydration, rest and shade, to keep core temperatures down- is **financially beneficial to industry.**

- The ongoing [EXHAUSTION](#) project will provide projections of socio-economic impacts and benefits of adaptation and mitigation by **estimating the costs of the health burden from heart and lung diseases associated with extreme temperatures.**

3) **Negative health effects of climate change are already broadly documented. By adapting to climate change, many health impacts can effectively be reduced. Heat-health action plans can for example play a role in reducing heat-related impacts. But more evidence of effective actions and measures is needed to enhance policy and commitment to action on climate change adaptation.**

- Between 1991 and 2018, more than **a third of all deaths in which heat played a role were attributable to human-induced global warming**, according to a study led by scientists that are partners in the EXHAUSTION project, published in [Nature Climate Change](#).
- Pregnant woman and newborns are particularly vulnerable to effects of climate change such as heat waves, and even more so in low and middle income countries. The effects of climate change can be both direct through e.g. heat stress and indirect through e.g. extreme weather events and air pollution. **Stillbirths, neonatal deaths and maternal deaths can be prevented with timely interventions during pregnancy and childbirth.** Climate adaptation plans need to consider vulnerable populations such as pregnant women and neonates. The ongoing [CHAMNHA](#) project will generate new knowledge on protecting the health of mothers and babies from extreme temperature.

4) **More intersectoral collaboration and knowledge exchange between the climate change and health research communities, policy and practice is needed for integrated and evidence-based action for mitigation of and adaptation to the health impacts of climate change.**

- Vulnerability to the health effects of climate change is unevenly distributed amongst the population with the elderly and chronically ill, outdoor workers, pregnant women and children in resource limited settings, and other disadvantaged populations taking the brunt of climate related health issues. ENBEL will synthesize evidence on differential vulnerability to climate change impacts and specific adaptation measures.
- ENBEL brings together international research projects on climate change and health. A survey of 15 projects so far indicates several gaps in research activities.
- Building more resilient health systems can create communities resilient to the impacts of climate change and reducing greenhouse gas emissions has many co-benefits for improving health outcomes. Thus, it is imperative that people working on climate or health issues work together, coordinate, and develop new ideas together. Through the ENBEL project, we have established a new network for climate and health in Africa. The network [CHANCE \(Climate-Health Africa Network for Collaboration and Engagement\)](#), aims to facilitate these interactions and create greater coherence between these often siloed communities of practice.

Find out more about our network and the climate and health projects involved:

www.enbel-project.eu

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