

Disasters Avoided

CLIMATE CHANGE AND DISASTERS

We are changing the climate, yet disasters are not inevitable.

- We are changing the Earth's climate rapidly and substantively.
- As a result, the weather is changing, but we are not helping people prepare for it.
- We can act now in order to avoid climate change influencing most disasters.

Authors: Ilan Kelman, Ana Prados, and Gareth Byatt.

Funded by NASA.

Human-caused climate change is intensifying rainfall in many places (photo: Ilan Kelman).



Human activities are changing the climate quickly and substantively. A changing climate is changing the weather, the oceans, and ecosystems.

How do these climate change impacts affect disasters? The baseline is that disasters are created by much more than weather. People are harmed by weather—that is, disasters happen—because they lack the awareness, knowledge, resources and abilities to deal with it. These circumstances emerge from people with political power supporting poor governance and failing to act to address poverty, marginalisation, sexism, insecure livelihoods, and inadequate infrastructure which denies people the opportunities for helping themselves and others.

As an example, human-caused climate change is leading to fewer but stronger hurricanes, typhoons, and cyclones. People forced to live in floodplains without measures to improve their situation already experience flood disasters. Fewer storms and more rain per storm do not alter this situation. To avoid a disaster, people need options to address existing and changing floods, such as retrofitting their properties, staying safe during a storm, and/or relocating to less flood prone areas.

More broadly, heat-humidity, sea-level rise, acidifying oceans and periods of drought beyond anything that modern humanity has known are among the changes expected to severely interrupt food production and other core livelihoods. We still need to stop human-caused climate change. But human-caused climate change is not an excuse to let disasters happen.

More information:

- Intergovernmental Panel on Climate Change <https://www.ipcc.ch>
- Climate Change's Role in Disaster Risk Reduction's Future <https://doi.org/10.1007/s13753-015-0038-5>