**Climate Action 13: Take Urgent Action to Combat Climate Change and its Impacts**

Without action, the world’s average surface temperature is likely to surpass 3 degrees Celsius this century.

CA 13 includes the following targets:

* Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
* Integrate climate change measures into national policies, strategies and planning.
* Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
* Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilising jointly USD 100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalise the Green Climate Fund through its capitalisation as soon as possible.
* Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing states, including focusing on women, youth and local and marginalised communities.
* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

The IPCC, the Intergovernmental Panel on Climate Change, the thing that they are most comfortable in predicting, that the science is most solid for, is [the increase](https://www.scientificamerican.com/article.cfm?id=model-predicts-future-hea) in many parts of the world in the duration and intensity of heat waves.

“Higher temperatures lead to substantially lower economic growth in poor countries,” says Ben Olken, a professor of economics at MIT, who helped conduct the research. And while it’s relatively straightforward to see how droughts and hot weather might hurt agriculture, the study indicates that hot spells have much wider economic effects. [[1]](#footnote-1)

“What we’re suggesting is that it’s much broader than [agriculture],” Olken adds. “It affects investment, political stability and industrial output.” [[2]](#footnote-2)

By looking at economic data by type of activity, not just aggregate output, the researchers concluded there are a variety of “channels” through which weather shocks hurt economic production — by slowing down workers, commerce, and perhaps even capital investment.

“If you think about people working in factories on a 105-degree day with no air conditioning, you can see how it makes a difference,” Olken says. [[3]](#footnote-3)

Looking at weather data over the last half-century, the study finds that every 1-degree-Celsius increase in a poor country, over the course of a given year, reduces its economic growth by about 1.3 percentage points.[[4]](#footnote-4)

hot spells are digging into America's pocketbook. "The biggest impact on the economy is the human toll associated with heat-related mortality and illness,"[[5]](#footnote-5)

The Natural Resources Defense Council, an environmental advocacy group, found the health-related costs of heat waves for much of the last decade reached [$5.3 billion](https://www.nrdc.org/sites/default/files/accountingcosts.pdf).

A recent study in the journal [Nature Climate Change](https://www.nature.com/articles/s41558-018-0222-x.epdf) concluded that there's a strong correlation between rising temperature and increased suicide rates in the United States and Mexico.

Another heat-wave impact is that electricity becomes pricier as demand rises.[[6]](#footnote-6)

Dozens of flights at Arizona's Phoenix Sky Harbor airport were delayed or canceled on Monday and Tuesday, after temperatures reached 120 degrees.

Hot weather makes air thinner, requiring more room to take off. Hotter air is less dense, which means there is less air beneath the wings for lifting the aircraft and less air to flow through the jet engines, [[7]](#footnote-7)

How do humans cope with hot, hot weather?  
The two ways we cope with [heat](https://www.scientificamerican.com/article.cfm?id=the-heat-is-on) are by perspiring and breathing.  
  
So is it the heat or humidity that is the real killer?  
The humidity is a huge factor. If you have tremendously high temperatures and high humidity, a person will be sweating but the sweat won't be drying on the skin. That’s why it's not just heat but the combination of heat and humidity that matters. That combination results in a number called the apparent temperature or "how it feels".

Have we not evolved to cope with super hot weather?   
Certainly society has evolved in dealing with the heat—and that has been in the development of air conditioners. The number-one factor that ameliorates death from heat is access to air conditioning.

The knowledge that extreme heat costs everyone, and that it's likely to intensify in the years to come, means that governments will have to plan to spend more.

"A lot of our systems and infrastructure were built for an older climate," says Stanford's Diffenbaugh. "The good news is we have opportunities to catch up and get ahead."[[8]](#footnote-8)

1. [**http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807**](http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807) [↑](#footnote-ref-1)
2. [**http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807**](http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807) [↑](#footnote-ref-2)
3. [**http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807**](http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807) [↑](#footnote-ref-3)
4. [**http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807**](http://news.mit.edu/2012/the-economic-cost-of-increased-temperatures-0807) [↑](#footnote-ref-4)
5. <https://www.nbcnews.com/news/us-news/heat-waves-can-create-stormy-economic-weather-n894311> [↑](#footnote-ref-5)
6. https://www.nbcnews.com/news/us-news/heat-waves-can-create-stormy-economic-weather-n894311 [↑](#footnote-ref-6)
7. <https://www.cnbc.com/2017/06/20/theres-a-scientific-reason-why-hot-weather-has-grounded-planes-at-phoenix-airport.html> [↑](#footnote-ref-7)
8. <https://www.nbcnews.com/news/us-news/heat-waves-can-create-stormy-economic-weather-n894311> [↑](#footnote-ref-8)