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Global economy to suffer if climate change is not addressed

Worldwide, Carbon Reduction, Finance

A new study published by scientists at Stanford and UC Berkeley has found a strong link between climactic conditions and the global economy.



The study, published in Nature, identifies fundamental productive elements of modern economies, such as workers and crops that exhibit high dependence on local temperature, even in wealthy countries.

The researchers examine data from 160 countries across the 50-year period from 1960 to 2010, and determine that an average local temperature of 13°C is economically optimal, particularly for agricultural productivity.

That temperature roughly reflects the current climate in many wealthy countries like the USA, Japan, France, and China.

If regional temperatures are cooler, then warming benefits the local economy, but past that peak temperature, warming reduces economic productivity.

The study found that it held true for both rich and poor countries, and that the relationship held for both the 1960–1989 and 1990–2010 time frames.

In essence, economies haven't adapted to hotter temperatures

To date, economists had believed that global warming would not impact economic growth in wealthy countries, because it was assumed they would have the resources to adapt to a changing climate.

However, the authors found that wealthy countries have been nearly as vulnerable to temperatures warming beyond 13°C as poorer countries.

"These results provide the first evidence that economic activity in all regions is coupled to the global climate and establish a new empirical foundation for modelling economic loss in response to climate change, with important implications," the authors of the study, Marshall Burke, Solomon M. Hsian and Edward Miguel, explain.

"If future adaptation mimics past adaptation, unmitigated warming is expected to reshape the global economy by reducing average global incomes roughly 23% by 2100."

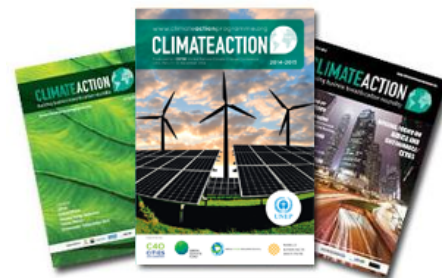
Some countries (5–43% of the world's nations) might even be poorer in 2100 than they are today as a result.

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