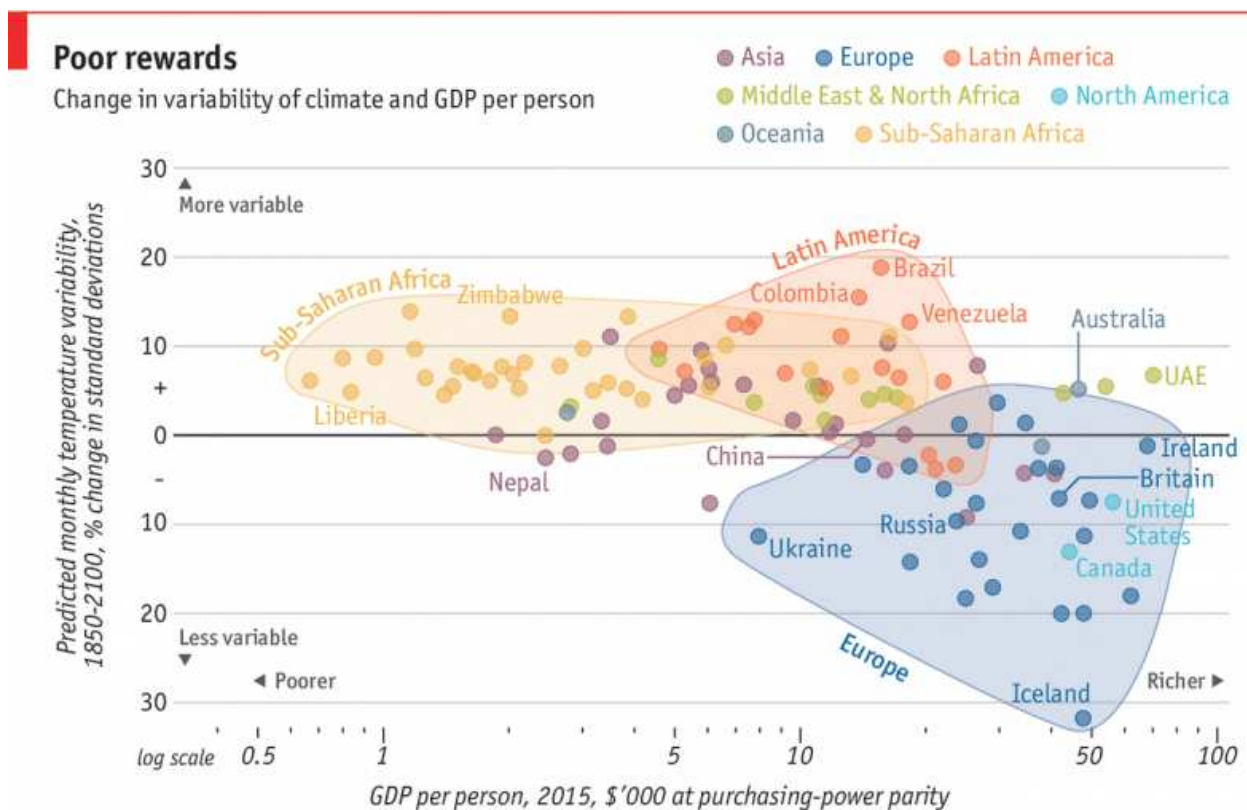


**Graphic detail**
**Daily chart**

# Climate change will affect developing countries more than rich ones

*Temperatures in tropical climates will become far more variable*



Source: "Climate models predict increasing temperature variability in poor countries", by Sebastian Bathiany, Vasilis Dakos, Marten Scheffer and Timothy M. Lenton, *Science Advances*, May 2018

Economist.com

Graphic detail

May 9th 2018 | by THE DATA TEAM

GLOBAL warming is often used as a synonym for climate change, and most discussions of the topic focus on the expected increase in average global temperatures. However, the frequency and severity of individual, catastrophic weather events depend heavily on the variability of temperatures as well as their

mean. The larger the swings, the more often extremely hot or cold conditions can wreak havoc.

Unfortunately, according to a new study by Sebastian Bathiany of Wageningen University and three other scientists, poor countries are not only predicted to bear the brunt of the increase in average temperatures, but also to suffer from higher variation. Their paper finds that, as the planet warms, soil in areas near the equator will dry up, reducing its ability to dampen temperature swings. This problem is expected to be especially acute in the Amazon rainforest.

Consequently, the authors expect the standard deviation of monthly temperatures to increase by nearly 20% in Brazil.

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In contrast, countries in the northern latitudes, which are mostly rich, will not be affected nearly as much by changes in soil moisture. Far from the equator, countries will actually see smaller temperature fluctuations, because of changing atmospheric patterns. In terms of both means and variances, the countries that bear the most historical responsibility for climate change are likely to be the ones least harmed by its consequences.

