

Climate change will drive dangerous inequality

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Climate change widens inequalities within and between nations but policy responses could counter this trend

Inequality between and within states will be increased by the effects of global warming, including higher sea levels, reduced crop yields and temperatures that threaten life and livelihoods across swathes of the planet. Climate-change adaptation and mitigation policies likewise have the potential to widen inequality, unless consciously designed to avoid such outcomes.



Resident walking through flooded streets in Honduras, November 2020 (Delmer Martinez/AP/Shutterstock)

What next

Widening inequality between and within nations is not unavoidable, but it is predictable in the absence of concerted efforts to chart an alternative path. There is scope for countervailing policies to make it easier and more affordable for economies to wean themselves off reliance on fossil fuels. Such policies include targeted adaptation assistance and carbon dividends. These will be easier to implement in wealthier states.

Subsidiary Impacts

- Widening inequalities risk fuelling political polarisation, which could further impede action on climate change nationally and globally.
- Adverse distributional impacts of climate adaptation and mitigation policies will receive greater attention, but action will lag awareness.
- Increased mining for scarce metals needed for electronic batteries may further harm disadvantaged communities in deposit-rich areas.

Analysis

Global temperatures have already risen 1.2 degrees Celsius above the level recorded at the outset of the industrial revolution, close to the 1.5-degree lower ceiling in the Paris Climate Agreement regarded as essential to avoiding catastrophic global outcomes.

There will be many negative consequences if global warming exceeds the ceiling, and the costs will rise exponentially. Three of them loom large:

- First, rising sea levels threaten to turn once-in-a-century storms that cause flooding of coastal areas into events happening once every few years -- or even annually, in a worst-case scenario. This poses major threats in particular to the growing coastal megacities of the Global South.
- Second, rising global temperatures in the tropics, allied with rising humidity that inhibits the ability of human beings to cool down, will make labour outdoors more lethal. Millions of livelihoods will be destroyed.
- Third, rising global temperatures will cut crop yields in major agricultural producers including the United States, Brazil, Australia and India; potentially increased yields in Canada and Russia will not fully compensate for this, at a time when the global population approaches 9 billion.

Uneven exposure

While no one will escape the effects of climate destabilisation, those with the least purchasing power and least political power are most at risk (see [INTERNATIONAL: Climate will hit economic development - July 29, 2021](#)). Wealth allows households to protect themselves by buying air conditioners, insurance against flood and fire damage, and other private adaptations. Political power enables communities to secure government assistance, such as the construction of sea walls to protect against storm surges.

For these reasons, 'natural' disasters have varying impacts on the rich and the poor. [Research](#) in the aftermath of Hurricane Katrina in New Orleans in 2005, for example, documented this: African Americans and low-income households were more likely to lose their lives and property during the storm, and less likely to receive public assistance after it.

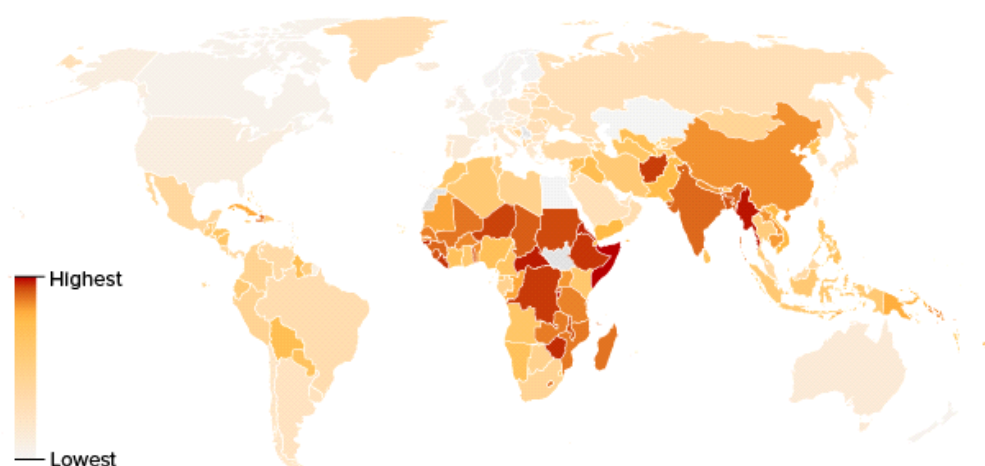
Research shows that climate change increases inequalities between
and within countries

Internationally, countries with low per capita incomes are most at risk. The capacity of governments to invest in protective measures is severely limited in lower-income nations (see INT: Developing nations risk missing climate targets - June 17, 2021). An economic shock that would represent a setback for an affluent society could be devastating for a poorer one.

The effects of global warming will not be distributed uniformly. Coastal areas of South-east Asia are especially vulnerable to storm surges from intensified hurricanes. Drought-prone regions of sub-Saharan Africa are expected to experience extreme rainfall shortages. The Center for Global Development has quantified the joint effect of these individual, societal and geographical vulnerabilities to climate change, highlighting that the Global South is much more at risk.

Overall vulnerability to climate change, adjusting the physical impacts for coping ability

Territories ranked for overall vulnerability



Source: Center for Global Development

The social and economic effects of widening inequalities extend beyond impacts on the poor. Growing inequalities place a strain on political systems in ways that can inhibit cooperation on climate action and mitigation, at the national level and globally.

Adaptation policies

Policies for adaptation to climate change can offset, at least to some extent, its inequality-widening impacts, but only if designed with this conscious objective. For example, public investments in flood control and urban cooling centres could be channelled to the most vulnerable populations.

In the absence of deliberate targeting, there is a tendency for public policy to prioritise the interests of wealthier citizens. Conventional cost-benefit analysis favours policies that benefit those with greater wealth, as it appears to be more 'efficient' to protect higher-value real estate. Disparities in political influence mirror disparities in wealth, magnifying this bias.

Such risks can already be seen in Bangladesh's 'climate adaptation' policies in coastal areas that are especially vulnerable to sea-level rise and storm surges. In the name of adaptation, small farmers have been forcibly displaced from their homes and their lands acquired by business interests for shrimp aquaculture for export markets. LSE researcher Kasia Paprocki has termed this process

'anticipatory ruination'.

Similar biases can be seen in the United States, where [analysis](#) this year finds that that flood-mitigation grants disbursed by the Federal Emergency Management Agency systematically favour protecting homes in richer communities, while denying aid to low-income neighbourhoods at equal or greater risk.

Many common adaptation and mitigation policies are biased towards
the wealthy and politically powerful

Mitigation policies

Policies to mitigate climate change can also widen inequalities in the absence of corrective actions. Policies that raise the cost of transport fuels or electricity, to reflect the cost of their carbon emissions, place a disproportionate burden on low-income households, for which energy needs represent a larger proportion of their consumption basket. Such policies are akin to a regressive tax.

If the extra money paid by consumers is collected via carbon permit auctions or carbon taxes and then recycled to households on an equal per capita basis, as in Canada's [Climate Action Incentive Payments](#), a disequalising policy can be transformed into an equalising one. Germany is actively considering a similar policy (see INT: German carbon dividend push will inspire - November 24, 2021). The UK government's plan to levy a windfall profits tax on energy companies and return the money to households, announced last month, is a step in the same direction.

Renewable energy technologies can have a negative aspect: the resulting mining booms for scarce minerals may aggravate pre-existing inequalities (see INT: 'Green' tech to power industrial commodity prices - May 20, 2021). In the United States, for example, proposals to extract lithium from California's inland Salton Sea have sparked concerns from residents already exposed to environmental degradation. Stringent measures to ensure clean and safe mining practices could help allay these fears, as would equitable revenue-sharing arrangements such as the [Alaska Permanent Fund](#).

Outlook

The nexus linking climate change to inequality might not necessarily receive priority attention in the coming years. However, the impact of adaptation and mitigation policies on inequality has the potential to be politically explosive. This will be a test for policymakers and the responsiveness of political systems to the concerns of lower-income groups.