



Comparison and Evaluation of Global Scale Studies of Vulnerability and Risks to Climate Change

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Understanding the present and future distribution of different climate change impacts and vulnerability to climate change is a central subject in the context of climate justice and international climate policy. Commonly, it is claimed that poor countries that contributed little to anthropogenic climate change are those most affected and most vulnerable to climate change. Such statements are backed by a number of global-scale vulnerability studies, which identified poor countries as most vulnerable. However, some studies have challenged this view, likewise highlighting the high vulnerability of richer countries. Overall, no consensus has been reached so far about which concept of vulnerability should be applied and what type of indicators should be considered. Furthermore, there is little agreement which specific countries are most vulnerable. This is a major concern in view of the need to inform international climate policy, all the more if such assessments should contribute to allocate climate adaptation funds as was invoked at some instances. We argue that next to the analysis of who is most vulnerable, it is also important to better understand and compare different vulnerability profiles assessed in present global studies.

We perform a systematic literature review of global vulnerability assessments with the scope to highlight vulnerability distribution patterns. We then compare these distributions with global risk distributions in line with revised and adopted concepts by most recent IPCC reports. It emerges that improved differentiation of key drivers of risk and the understanding of different vulnerability profiles are important contributions, which can inform future adaptation policies at the regional and national level. This can change the perspective on, and basis for distributional issues in view of climate burden share, and therefore can have implications for UNFCCC financing instruments (e.g. Green Climate Fund). However, in order to better compare traditional vulnerability distributions with more recent conceptualisation of risks, more research should be devoted to global assessments of climate change risk distributions.