



Editorial

Vulnerability before adaptation: Toward transformative climate action

By affirmative remedies for injustice I mean remedies aimed at correcting inequitable outcomes of social arrangements without disturbing the underlying framework that generates them. By transformative remedies, in contrast, I mean remedies aimed at correcting inequitable outcomes precisely by restructuring the underlying generative framework. *Adding Insult to Injury*, Nancy Fraser, 2008:28

Scholars have long talked of climate-related risk in terms of vulnerability (Sen, 1981; Downing, 1991; Watts and Bohle, 1993). The discourse has recently shifted from vulnerability to adaptation (Schipper, 2006; Orlove, 2009). In 2001 IPCC defined adaptation to climate change as "...adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities" (IPCC, 2001:365; and in IPCC, 2007:869). Adaptation has become a core element of international climate action (Dovers, 2009). The term is now widely used to describe efforts to enable people to cope, reduce their vulnerability and improve their livelihoods in the face of climate stress (Orlove, 2009; Lemos et al., 2007; Agrawal, 2009).

Adaptation efforts are noble, necessary and long overdue, but there are grave risks in calling these efforts 'adaptation' rather than 'vulnerability reduction'. Orlove (2009:160–161) shows that, in practice, adaptation analysis tends to train attention on hazards rather than the broader set of stressors people face; it focuses, via cost-benefit analysis, on easily measured variables such as economic well being rather than less-quantifiable cultural and religious values, long time horizons, or attachment to place; and by attending to adjustment, "it tends to exclude the possibility of non-adaptation from consideration." Other risks, developed below, reside in the concept of adaptation; they include obscuring of causality, naturalizing of the problem and responses, and social Darwinism. The formerly dominant term vulnerability, of course, also has its shortcomings. It can be criticized for a vexing 'negative' focus on problems, rather than solutions, and for painting affected people as passive victims (Cannon et al., 2003) – which, by the way, sometimes they are (sometime passive, sometimes active, but often victims).

Words matter. The term vulnerability leads us to ask "why are people vulnerable or at risk." (Of course 'why' is about causes, leading to questions of 'who' is responsible; oh, lets not go there.) When we talk of adaptation, the first thought is "how do people adapt." An adaptation framing does not automatically draw us to ask "why do people have to adapt in the first place." Adaptation takes attention away from causality by shifting the focus from cause to response. Further, defining "adaptation to climate change"

(IPCC, 2001, 2007) or talk of "response to ...climate..." (World Meteorological Organization 1986 in Orlove, 2009:133) places risk within the hazard – within climate rather than society. Hence, adaptation thinking can occlude causality in two ways. First, by prioritizing response it diminishes attention to the generation of risk. Second, by placing risk in the hazard, it draws attention away from underlying social causes of vulnerability – exploitation, exclusion, marginalization, socially stratified societies in which the poor have no access to representation, education, healthcare and basic social security. But, since we need a clear understanding of causality if responses are to be robust (or if we are to attribute responsibility), obscuring cause promotes superficial palliative responses while avoiding just redress. These arguments are not mere semantics; language matters deeply for analysis, interpretation and action (see O'Brien et al., 2007).

The term adaptation has another troubling connotation – despite debates on autonomous (unplanned, spontaneous, inherent, or reactive) versus planned (proactive) adaptation (Hart and Morrison, 1993). It evokes a social-Darwinist ethic when applied to people, implying those who do not survive (who do not adapt) were not fit. It burdens and blames the victim by devolving the onus of adjustment to the organism or effected unit. Rather than just helping people who have been pushed to the brink of crisis or stopping the social and political-economic processes that are marginalizing them, the term adaptation (not all of its users) suggests that people should adjust and help themselves, or, at best, that society help them to help themselves. The effected unit must adjust – with or without help. Of course helping people to help themselves is good, but not if we forget they are adjusting to circumstances that are not of their making. Such a framing takes attention away from the social and political-economic production of marginality and associated risk – where public attention and funding should be prioritized.

Regardless of whether people are at risk due to their own foibles or to social exclusions, societies are responsible for those who cannot take care of themselves – that is what makes a society. As Hubert Humphrey is alleged to have said, "A society is ultimately judged by how it treats its weakest and most vulnerable members," and as John F Kennedy quipped "If a free society cannot help the many who are poor, it cannot save the few who are rich." Social responsibility is a moral imperative – it is also not bad for the self-interested powerful. Further, by implying evolutionary and natural, rather than social, processes of change, adaptation has no implicit link to social causes or responsibility for the vulnerabilities that shape people's suffering – since we know that nature is not to blame for anything. As Arendt (1960:460) points

out, the miracles of evolution are authored by probability whereas we know the author of the even more-frequent miracle of political change through “...men who because they have received the twofold gift of freedom and action can establish a reality of their own.” She places cause (and responsibility) in society. Beyond locating causes within hazards, adaptation’s naturalization of adjustment itself (as if it were a natural response to a stimulus, as natural as survival) can further occlude social responsibility for the class, ethnic, gender, age, and caste differentiated risks to which vulnerable populations are adjusting. Biological metaphors should be cautiously applied to society: nature is without compassion; society does not have to be.

Our models and metaphors reflect causal cosmologies that locate responsibility in God, nature, or society. By joining the word species with the word origins, Darwin suggested that species were not ideal essences provided by God to be manifest on earth. The idea of a non-divine stochastic causality in Darwin’s day implied that God was not the designer. Dewey (1909) argued that, “...the new logic [of Darwin] introduces responsibility into the intellectual life. To idealize and rationalize the universe at large is after all a confession of inability to master the course of things that specially concerns us. As long as mankind suffered from this impotency, it naturally shifted a burden of responsibility that it could not carry over to the more competent shoulders of the transcendent cause.” The idea that vulnerability is social rather than natural requires a similar shift. Naturalizing vulnerability through discourses of ‘natural disaster’, similar to calling a hurricane an act of God, takes responsibility from society and displaces it elsewhere. The choice of a natural metaphor – adaptation – should not result in shirking of responsibility. While scientists are proud to have stepped from God to nature during the enlightenment, the next step from nature to society is still incomplete. It is still comforting to temper responsibility by naturalizing causality.

Societies do not ask individuals and small groups to solve problems orders of magnitude beyond their means – such as national defense, roadway and railway transport systems, or flood, drought and hurricane preparedness. While these larger-scale activities can be characterized as ‘society’s adaptations’ – adaptation is still a naturalizing characterization of what must be intentional social actions. Roads do not naturally evolve or emerge. They are planned and built. When roads deteriorate we do not ask truck drivers or commuters to patch them – nor do we expect them to buy bigger tires. We ask – indeed, we expect – government to repair the roads. We blame government for failing to maintain good-quality infrastructure that makes people safe and supports an efficient economy. We tax the individual and commerce to get these things done, but we do not ask the individual or even civil society to do these things. Societies need to help people to help themselves – but they need to help them by addressing the social and political – economic genesis of their marginality. They need to challenge exploitation and to provide infrastructure, not to mention fair access to markets and to government resources.

Good government is important. Policy makers, practitioners, scholars, and citizens must guard against what are now being called maladaptive outcomes – whether government or individual – such as when one group’s adjustments increased another’s risk, government interventions reduce individual conservation incentives, or lower-cost alternatives are missed (Barnett and O’Neill, 2010). Given the large scale of climate action, we also need guarantees against government turning environmental responsibility into central control – such as is happening with Reduced Emissions from Deforestation and forest Degradation (REDD) programs (Phelps et al., 2010; Sikor et al., 2010). Governing requires checks and balances. Good government does not trust

leaders (or any other actors) to be accountable to the people – it makes them accountable through the system of mistrust of authority that we call democracy. It does not replace local representation with centralized paternalistic management. It also does not privatize public decisions to unaccountable self-interested customary, private or non-government actors. It keeps them under representative (responsive and accountable) public authority at scales capable of being most accountable and responsive to needs. If government is unaccountable, climate action should work to make it accountable; it should not circumvent or avoid government. The resulting pluralism without representation – governing by privatized and non-government institutions in the absence of good government – is a formula for elite capture. Checks and balances will come from supporting more and improved government that is held accountable by many watchful eyes analyzing causes of vulnerability and linking government action to the production and resolution of climate-related risk.

Understanding multi-scale causes of vulnerability can help identify the multiple social, economic and political scales for intervention. The word adaptation does not preclude vulnerability analysis. Indeed, actions labeled adaptation should be based on deep knowledge of vulnerability. Such analysis does not just mean identifying vulnerability indicators – to which vulnerability analysis is often reduced. Indicators are important for identifying who is at risk so interventions can be well targeted. But it is analysis of why they are at risk that tells us what can be done about it. Insisting on causal analysis as a prerequisite of any climate risk-reduction approach, ensures that the broadest range of factors is taken into account for guiding action. While adaptation may seem urgent and rigorous causal analysis takes time, skipping this step limits options. A rushed look at the proximate and palliative adjustments that an adaptation focus tends to illuminate, risks missing some larger-scale interventions that could reduce the long-term costs of adjustment. Of course, not all causes identified through vulnerability analysis are treatable, and many causes can best be identified by analyzing acts of adjustment that are now being called adaptation. The terms adaptation and vulnerability can be compatibly linked through the concept of risk. One is focused on generation of risk and the other on response to it. Analytically, adaptive capacity is the converse of vulnerability, the ability and inability to avoid risk – they are shaped by the same factors. The analyst’s and practitioner’s responsibility is to act based on a full assessment of the generative causes of risk and of potential entry points for risk reduction.

Despite its risks, the term adaptation is not going away. Now that this term has gone viral, the analysts of climate-related vulnerability and response will just have to adapt – by being aware of its pitfalls. The term lends itself to shedding the burden of response onto vulnerable parties; naturalizing what are socially generated conditions; occluding causality, blame and responsibility; false promises of positive outcomes; and attending to the countable at the expense of what counts. By making these proclivities explicit, we can more effectively and consciously use public expenditures to optimize human wellbeing through what are to be called adaptation policies, measures, and investments. Making vulnerability analysis a required first step for any adaptation analysis or intervention can help move us from affirmative toward transformative climate action.

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References

- Agrawal, A., 2009. Local institutions and adaptation to climate change. In: Mearns, Robin, Norton, Andrew (Eds.), *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*. The World Bank, Washington, DC, pp. 173–198.
- Arendt, B., 2000 [1960]. What is Freedom? In: Peter Baehr (Ed.), *The Portable Hannah Arendt*, Penguin Books, New York, pp. 438–61.
- Barnett, J., O'Neill, S., 2010. Maladaptation. *Global Environmental Change* 20, 211–213.
- Cannon, T., Twigg, J., Rowell, J., 2003. Social vulnerability, sustainable livelihoods and disasters. Report to the Department for International Development, Conflict and Humanitarian Assistance Department and Sustainable Livelihoods Support Office, London.
- Dewey, J., 1909. The influence of Darwinism on philosophy. *Popular Science Monthly* (July).
- Dovers, S., 2009. Normalizing adaptation. *Global Environmental Change* 19, 4–6.
- Downing, T., 1991. Assessing Socioeconomic Vulnerability to Famine: Frameworks, Concepts, and Applications. Final Report to the U.S. Agency for International Development. Famine Early Warning System Project, January 30, 1991.
- Fraser, N., 2008. Redistribution or Recognition? Dilemmas of Justice in a "Post-socialist" Age. In: Olson, Kevin (Ed.), *Adding Insult to Injury: Nancy Fraser Debates Her Critics*. Verso Press, London.
- Hart, C., Morrison, B., 1993. Adaptation to Climate Variability and Change. In: Smit, B. (Ed.), *Report on the Adaptation to Climate Change to the Canadian Climate Program Office, Climate Adaptation Branch Bulletin*. SRC Publication No.: E-2900-22-E-93, vol. 90, no. 4, pp. 53.
- IPCC (Intergovernmental Panel on Climate Change), 2001. *Climate Change 2001: Synthesis Report. A Contribution of Working Groups I, II, and III to the Third Assessment Report of the Intergovernmental Panel on Climate Change*. In: Watson, R.T. and the Core Writing Team (Eds.), Cambridge University Press, Cambridge, United Kingdom/New York, NY, USA, p. 398.
- IPCC, 2007. *Climate Change 2007: Impacts, Adaptation and Vulnerability*. In: M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (Eds.), *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge.
- Lemos, M.C., Boyd, E., Tompkins, E.L., Osbahr, H., Liverman, D., 2007. Developing adaptation and adapting development. *Ecology and Society* 12 (2), 26.
- O'Brien, K., Eriksen, S., Nygaard, L.P., Schjolden, A., 2007. Why different interpretations of vulnerability matter in climate change discourses. *Climate Policy* 7, 73–88.
- Orlove, B., 2009. The Past, the Present and some Possible Futures of Adaptation in Adapting to Climate Change: Thresholds, Values, Governance. In: W. Neil Adger, Irene Lorenzoni and Karen O'Brien (Eds.), Cambridge University Press, Cambridge.
- Phelps, J., Webb, E.L., Agrawal, A., 2010. Does REDD+ threaten to recentralize forest governance? *Science* 328.
- Schipper, E.L.F., 2006. Conceptual history of adaptation in the UNFCCC process. *Review of European Community and International Environmental Law* 16, 82–92.
- Sen, A., 1981. *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford University Press, Oxford.
- Sikor, T., Stahl, J., Enters, T., Ribot, J., Singh, N., Sunderlin, W.D., Wollenberg, L., 2010. REDD-plus, forest people's rights and nested climate governance. *Global Environmental Change* 20 (3).
- Watts, M.J., Bohle, H., 1993. The space of vulnerability: the causal structure of hunger and famine. *Progress in Human Geography* 17 (1), 43–68.

Further reading

- Ribot, J., 2009. Vulnerability does not fall from the sky: toward multi-scale pro-poor climate policy. In: Robin Mearns, Andrew Norton, (Eds.), *Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*. The World Bank, Washington, DC, pp. 47–74.

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