



HENVI Policy Brief 4

How to reduce environmental vulnerabilities in the globalizing world?

The world today is characterized by rapid change, driven by processes that intersect in very complex ways including: political economies, mass consumption patterns, resource depletion, demographic change, migration and urbanization. Climate change is adding to the considerable challenges posed by these changes. To respond to these challenges, increased understandings of system interactions and the “big picture” are needed.

Global problems, local effects

Whilst environmental vulnerabilities certainly are global and interconnected, their impacts are very localized and are seen in the everyday lives of people. Thus, detailed assessment of local impacts and adaptation measures are needed to provide secure supplies of food, water and energy.

At present, policies tend to be developed at levels that do

not match people’s everyday lives. There is an urgent demand for allowing more localized initiatives and responses to emerge which nevertheless require support, information and financial resources from larger scales.

Inequality and vulnerability

Environmental changes can affect all sectors and levels of society, but the effects can be unevenly felt. While climate change certainly affects the entire globe, specific biophysical changes are radically different across regions and microclimates as well as radically different for people across gender, socioeconomic class, race and other dimensions of social difference. In forming current and future adaptation and mitigation policies, we have to think closely about how we can plan for alternatives that are both environmentally sustainable and socially inclusive.

Decision-makers working in different sectors need now to collaborate

Environmental vulnerabilities pose a challenge for decision-making and planning. Vulnerabilities need to be dealt with at all levels of decision making. The problems are so huge and so densely interconnected that in order to respond to them, communities are required to shift from sectoral policy making to a more integrated approach: decision-makers who have until now worked independently in their own sector or level of policy, need to work together towards common goals.

If this is not done, decisions made in one sector or at one scale, might have negative consequences for other sectors and scales. This is particularly relevant as efforts are made to work towards the goals of the Paris Agreement established in December 2015. For example, the sectors of biodiversity conservation, water management, energy production, agricultural management, land use planning, urban planning and infrastructure development are all interconnected. Each of

Box 1

What is vulnerability?

According to the IPCC’s Fifth Assessment Report (2014), vulnerability is “*the propensity to be adversely affected*” and “*encompasses sensitivity or susceptibility to harm and lack of capacity to cope and adapt*”. Vulnerability can also be considered as a likelihood that an individual or group will be exposed to and adversely affected by a hazard. It is the interaction of the hazards of place (risk and mitigation) with the specific political-economic and social characteristics of communities and households that puts some people more at risk than others. As such, vulnerability emerges from the intersection of different inequalities, and uneven power structures, and hence is socially differentiated. Vulnerability is not a problem only for people but also applies to species and ecological systems, where the characteristics of species and ecosystem structure will determine the degree of vulnerability.

these sectors is affected by climate change, and strategies of adaptation need to be formulated. Similarly, environmental changes in one region can have socioeconomic effects on others, because different regions may be linked by trade or by movement of humans or other species.

Suggestions for policies for better adaptation and acknowledgement of vulnerabilities:

- Acknowledge that adaptation is multi-sectoral and should be taken into account in all policy sectors and through legislation.
- Enhance cross-sectoral collaboration: Decision-makers working in different sectors or at different scales need to collaborate.
- Understand the differences in experienced climate impacts among differently situated vulnerable groups – that will help to enhance climate justice in more inclusive and meaningful ways.
- Acknowledge that climate change has to be seen as a part of the processes of development, democracy, and justice, and not separate from them.
- Increase the awareness and enhance the public debate to define how policy and planning can support adaptation at different levels.
- Support transdisciplinarity in science: research can show how, when, where and why vulnerabilities develop.
- Be brave to make strategic initiatives: to promote change, courage, knowledge and passion are needed.

Box 2

What is adaptation?

The IPCC's Fifth Assessment Report (2014) defines adaptation as "the process of adjustment to actual or expected climate and its effects" which in human systems "seeks to moderate harm of exploit beneficial opportunities". In natural systems, although some natural adaptation occurs, humans may intervene to "facilitate adjustment" to expected climate change. However, there are new calls to understand adaptation as part of wider social, political, cultural, economic and environmental changes which together shape how we respond to climate change.

Box 3

Traditional knowledge turns into disinformation

Inuit in Greenland are one especially vulnerable group to the impacts of the changing climate. Indigenous people are tuned to the changes of weather and climate as their livelihood depends directly on them. However, the arctic sea ice is behaving differently than before and young Inuit do not rely on the traditional knowledge provided by their elders. Thinner ice cover can endanger sealers. The problem can also be seen among Sami people practicing reindeer husbandry. Climate change is turning the prediction of snow and ice conditions difficult. Reindeer breeders cannot rely on traditional knowledge in how reindeers will find food under the snow or how the herds can be moved.

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This policy brief is based on the presentations and group discussions held in the event. Speakers of the event were Prof. Andrea Nightingale, Prof. Barry Smit, Prof. Farhana Sultana and Dr. Rachel Warren. The group discussions were moderated/facilitated by Rachel Warren, Barry Smit, Farhana Sultana, Andrea Nightingale, Anja Nygren, Markku Kanninen, Kaisa Korhonen-Kurki, Tanja Suni, Kirsi-Marja Lonkila, Katriina Soini, Kati Vierikko, Mira Käkönen, Aleksii Räsänen and Adrian Monge Monge. This policy brief was produced by Riina Koivuranta, Kaisa Korhonen-Kurki and Kirsi-Marja Lonkila.



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