



With climate change poor people often become more vulnerable and forced to transport water over long distances. Photo: Bent Christensen/azote.se

Making research more effective to support policy and practice for reducing vulnerability to environmental change

Vulnerability and livelihood security of the world's poor and marginalized people are closely linked to biodiversity and ecosystem resilience. In order to be more effective in supporting change towards more resilient and sustainable societies, the research community needs to place more emphasis on processes and outputs that are relevant to local stakeholders. This is one of the main conclusions of a Sida-funded programme on poverty and vulnerability.

The UN Millennium Ecosystem Assessment (2005) concluded that unprecedented human-induced changes to ecosystems in recent decades are expected to increase the frequency, duration and magnitude of periods of abrupt change. This includes changes in freshwater availability, the recurrence of weather-related hazards, the emergence of new diseases, environmental degradation, and the loss of biodiversity. On top of this, many regions are increasingly affected by socio-economic changes due to globalisation, demographic changes, economic integration, and changing power structures. As a result, individuals and communities all over the world – particularly in developing countries – are experiencing new kinds of vulnerabilities affecting livelihoods, health and overall well-being.

In recognition of this rise in human vulnerability to environmental change, the Sida-funded *Poverty and Vulnerability Programme* was initiated in 2002. It represents one of the largest efforts aimed at gaining an improved understanding of how environmental risks and changes affect the world's poor and marginalized people. The programme, undertaken by the Stockholm Environment Institute (SEI) and engaging partners and stakeholders at all levels, focuses on applied research and

policy support to address social vulnerability to environmental and socio-economic change and to support the overall goals of poverty reduction and sustainable development. Employing participatory and action-research approaches, the programme builds on a multidisciplinary vulnerability framework jointly developed by SEI and Clark University, which draws attention to how multiple socio-political, ecological and geo-physical processes operate at different spatial and temporal scales to produce vulnerability within coupled human-environment systems.

The programme is also underpinned by recent research indicating that human vulnerability and livelihood security are closely linked to biodiversity and ecosystem resilience, e.g. that healthy ecosystems provide more options for communities to recover their livelihoods following a disaster. A wide array of issues and regions have been studied within the programme, including adaptation to climate, water and health stresses in South Africa; the causes of social vulnerability to coastal hazards in Southeast Asia; the impacts of genetically modified agriculture on the poor and the vulnerable; and the integration of a vulnerability perspective in Poverty Reduction Strategy Papers.

Outputs relevant to local stakeholders

When summing up the programme's achievements since 2002 we highlight six main insights on effective research and policy support for vulnerability reduction (see box). One of the key insights that neatly summarizes our overall findings is that most outputs of vulnerability research are too theoretical and conceptual and only disseminated through scientific journals published in English. In order to be more effective in supporting change towards more resilient and sustainable societies, the research community needs to recognize the importance of sub-national level organizations and decision-makers. More emphasis needs to be placed on outputs that are relevant to stakeholders at the village, municipality and district levels. For instance, the research findings arising from place-based case studies should be translated into the local languages and targeted to clearly defined audiences, taking their perspectives, constraints and opportunities into consideration.

Focusing in particular on social learning, institutions and adaptive management and governance, future work is aimed at developing innovative approaches and methods on risk, vulnerability and resilience, linking community-based vulnerability/adaptation science to larger drivers and policy debates with a strong focus on Africa and Southeast Asia.

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More at:

<http://www.vulnerabilitynet.org/sei-pov/overview.html>

<http://www.sei.se/index.php?section=risk>

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Box: Important factors for effective research and policy support for vulnerability reduction

1. Bridging scales in assessment and practice using innovative approaches and methods
2. Establishing effective collaboration with diverse research and policy actors
3. Integrating different kinds of knowledge and perspectives
4. Improving participatory and stakeholder-oriented research approaches
5. Improving the scientific basis for vulnerability assessment
6. Strengthening links between science, policy and practice
7. Improving the communication of research findings