



Addressing Vulnerability to climate change

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Work this is based on

- Addressing human vulnerability to climate change: Toward a 'no-regrets' approach, Global Environmental Change 2009. With Paul Bennett Siegel, Steen Lau Jorgensen
- Social Policies for Adaptation to Climate Change, book chapter, with Siegel and Jorgensen
- Lessons from the Development Marketplace (in progress)
- Adaptation to what? Observations on the objectives and scientific underpinnings of adaptation strategies (in progress)

Part 1. What is vulnerability?

- Vulnerability = risk of becoming poor during a fixed time interval.
(risk of the household falling below the poverty line as a result of changes in income resulting from risky events)
- Risk: The chance of danger, damage, loss, injury, or other undesirable consequences from risky events.
- Exposure to risk: Assets and livelihoods that can be impacted by risk
- Sensitivity to risk: Susceptibility of assets and livelihoods exposed to risk
- Adaptive capacity: ability to reduce risks and human vulnerability associated with climate change.
- Adaptation may be anticipatory/ex-ante or ex-post/reactionary (“risk coping”)

Direct and indirect risks

- Vulnerability is a function of the risks, exposure and sensitivity to risks and adaptive capacity.
- Direct geo-physical impacts of climate change trigger indirect socio-economic risks.
- Adaptation needs to pay attention to both direct and indirect risks and to directly and indirectly exposed sectors, regions, and households.



Who are the vulnerable?

- Everybody are exposed but not all are vulnerable
- The most vulnerable households are those with assets and livelihoods exposed and sensitive to climatic risks and who have weak risk management capacity.
- The poorer households, and those that depend on natural resource-based livelihoods, are most at risk.

Climate shocks leave permanent traces

- Disasters such as droughts and hurricanes can have long term and permanent consequences on nutrition, education, and assets.
- Societies are not addressing climate shocks well today
- Adaptation gap



No-regret adaptation

- Strategies that yield benefits for a wide range of climate scenarios
- Build general resilience
- no-regrets' does not mean cost-free: there are always (opportunity) costs
- Little need for detailed climate projections.

Pro-poor adaptation

- Community-based adaptation
- Safety nets and social protection that is climate and disaster responsive
- livelihoods programs
- Microfinance
- Index insurance



Part 2. Responding to human vulnerability to climate change: lessons from the DM



Part 3. Some areas of debate

- How much funding for adaptation?
- Who controls the funding?
- Who implements adaptation?
- Top down vs bottom up

Development-driven and impact-driven adaptation

- Two opposing views on the objectives of adaptation:
 1. adaptation is a vehicle for pursuing near-term development goals (poverty, environment, GHG reduction). No-regrets. Development driven
 2. adaptation as responding to specific observed or predicted climatic impacts.

Problems with development-driven approach

- many donors need additionality: demonstrate that adaptation efforts are additional to, ‘development as usual’.
- it seems ‘just more of the same’
- no regrets always has (opportunity) costs. Is it cost effective?
- Does it help adjust to large long-term impacts?

Problems with impacts-driven approach

- Focuses attention to direct risks and to 'climate proofing' of infrastructure and agriculture, possibly away from pro-poor areas
- Many impacts are uncertain, esp. at local level
- Small uncertainty about many aggregate global impacts
- Higher uncertainty about impacts where and when

Challenges to resolve

- Reconciling opposing views of what adaptation should aim to achieve
- M&E. Which projects work?
- Reconciling time scales: long-term climate change impacts vs short-term adaptation projects
- Which areas can be defended, which
- Adapting to a 4-degree warmer world...