

Climate Vulnerability Assessment Cheat Sheet

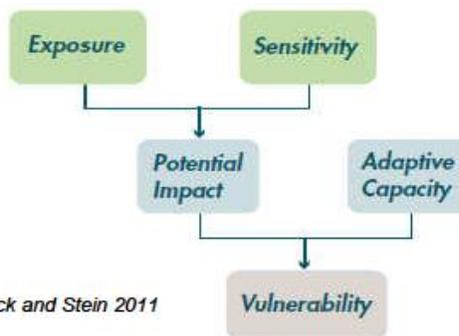
$$V = E + S - AC$$

Vulnerability (V) to climate change reflects:

Exposure (E): how much change occurs, including changes outside the project area that affect the target (e.g. melting glaciers → changes in water flow and water supply)

Sensitivity (S): how much the target is affected by a given amount of change (e.g. rice yield is strongly influenced by changes in rainfall)

Adaptive capacity (AC): ability to adapt to change; can apply to individual households, entire communities, agroecological systems, etc. (e.g. a household dependent on a single crop for income has little ability to compensate for poor yield)



Your vulnerability assessment goal affects how you do the assessment (e.g. audience, target, spatial and temporal scale, products). Some possible targets/objectives of a vulnerability assessment include:

1. Informing what mix of crops to plant
2. Deciding whether to promote crops, livestock, or a mix of both
3. Evaluating how much to invest in infrastructure in potentially vulnerable locations
4. Working with a community to understand how they experience their own vulnerability

OPTIONS FOR DECREASING VULNERABILITY OF A SPECIES OR A SYSTEM

- 1. Decreasing EXPOSURE**
- 2. Decreasing SENSITIVITY**
- 3. Increasing ADAPTIVE CAPACITY**

1. Examples of decreasing EXPOSURE

- Reducing greenhouse gas emission to reduce rate and extent of global change
- Restoring wetlands to limit increases in drought and flooding
- Replanting riparian vegetation to limit in-stream water temperature increases
- Building dikes to limit flooding

2. Examples of decreasing SENSITIVITY

- Elevating houses or crop storage facilities so that they remain useable during floods
- Breeding crop or livestock varieties that can tolerate likely future conditions (e.g. salt-tolerant rice varieties)
- Anticipating and preventing (e.g. through programs to increase efficiency of water use by farmers) increased demands on resources by people as a result of climate change

3. Examples of increasing ADAPTIVE CAPACITY:

- Diversifying income streams so that households aren't dependent on a single climate-sensitive crop.
- Creating communities of farmers to share new techniques and ideas for reducing vulnerability or increasing resilience
- Providing microloans to increase farmers' ability to try new technologies
- Supporting the preservation and use of a wide diversity of local rice varieties