OVERVIEW OF FRAMEWORKS, METHODS AND TOOLS

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Purpose

- I've been asked to give you
  - An overview of tools for analyzing vulnerability and adaptation
  - How they can be appropriate for the questions being asked

Let's Begin With the Questions Being Asked

- Typical questions in climate change:
  - Is my system, region, village, etc. vulnerable to climate change?
    - If so,
      - What can happen
      - How much
      - How soon
      - How certain…
  - How can we adapt so as to reduce the vulnerabilities?

Vulnerability vs. Adaptation

- For vulnerability it may be sufficient to get an indication of what is at risk
- For adaptation, need to know how effective adaptations are in reducing vulnerability

Important to Understand What Information is Needed

- What kind of information is needed
  - Geographic scale
  - Temporal scale
  - Time horizon
- How accurate does it need to be

Climate Change Scenarios

- For understanding vulnerability, a limited number of scenarios may be ok
- For adaptation, need to insure that capturing wide range of potential changes in climate so as not to mislead decision makers
  - What information needed to support adaptations

Let's Turn to Methods and Tools

UNFCCC Compendium: An Overview of Tools

- Frameworks
- Climate Change Scenarios
- Socioeconomic Scenarios
- Decision Tools
- Stakeholder Approaches
- Sector Specific Modeling Tools
  - Water Resources
  - Agriculture
  - Coastal Resources
  - Human Health
  - Vegetation

We Can Divide These Tools Into Top Down and Bottom Up

- Top Down tend to be scenario and model driven assessments
- Bottom Up tend to be based on analysis of current socioeconomic conditions, livelihoods, etc.

Advantages and Disadvantages

- Top Down
  - Good for estimating climate change impacts
    - Particularly at large scale
  - May not provide appropriate information (e.g., extreme events) or be at appropriate geographic scale (e.g., farm level)
- Bottom Up
  - Can address current vulnerabilities and issues
  - May not bring in climate change or address larger scale vulnerabilities

Problem: Competition Among Methods

- There is not a “right” or “wrong” method
- Those doing assessments need to determine what the needs are
  - Selection of methods should be influenced by the questions being asked
- Select tools or *combinations of* tools that provide insight
- Humility: Don’t expect modeling and analysis to provide all the answers
  - Can be used effectively to inform process