

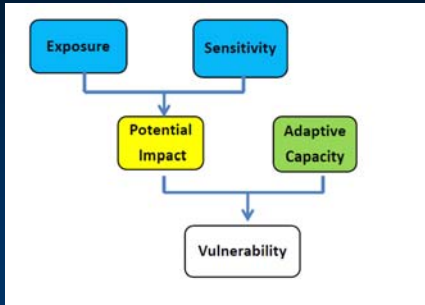
Foundational Concepts and Overview of Key Steps

Components of Vulnerability

- Sensitivity
- Exposure
- Adaptive Capacity

1 CLARIFY VULNERABILITY FRAMEWORK	2 ASSESS CURRENT VULNERABILITY	3 IDENTIFY FUTURE STRESSORS	4 ASSESS FUTURE VULNERABILITY
To what: Vulnerable to what (climate hazards)	Current risk and event history, and response to existing climate hazards	Direct and Indirect impacts of: climate changes, development trends, and growth scenarios.	Identify most vulnerable groups and areas, and vulnerability of sectors and inter-linkages between them
Of what: Who/what is vulnerable (social group, neighborhood, sector)	Current dimensions of vulnerability (physical, environmental, social, economic, human)		Review governance and institutional mechanisms associated with vulnerability and building resilience
Dimensions of vulnerability: Physical (including exposure), environmental, social (including governance), economic, human			(Dependent on 2 and 3)

Putting it Together



Putting the Pieces Together

- Family Farm
 - My family lives on a farm and we want to increase our resilience. Can we consider adaptive capacity as a means to improve resilience to climate change?
 - What might be exposed (biological, financial, cultural values).
 - What climate stressors are these valued things sensitive to?
 - What are the intrinsic and extrinsic adaptive capacities that can improve resilience?

Key Steps for Vulnerability Assessment

1. Determine objectives and scope
2. Gather relevant data and expertise
3. Assess the components of vulnerability
4. Apply assessment results



Step 1

1. Determine objectives and scope

- Why?
- Targets?
- Scale?
- Approach?

Complexity and Specificity

- **Level of specificity and complexity**
 - Most complex not always "best"
 - Should be appropriate to type of decision or user needs
 - Potential for "false accuracy"
- **Remember project triangle: Can only maximize two**
 - Time
 - Cost
 - Quality



Approach: Quantitative vs. Qualitative

- **Quantitative**
 - Generally rely on computer-based models
 - Often resource intensive (data, expertise, time)
- **Qualitative**
 - Can rely on conceptual ecological models
 - Can make use of generalized climate scenarios
 - Often rely on expert opinion

Step 2

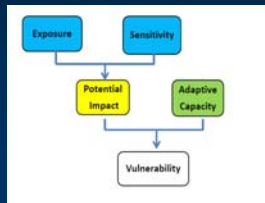
2. Gather relevant data and expertise

- Review existing literature
- Reach out to experts
- Obtain/develop climate and ecological response projections

Step 3

3. Assess components of vulnerability

- Assess sensitivity, exposure, adaptive capacity
- Estimate overall vulnerability
- Document confidence levels/uncertainties



Step 4

4. Apply assessment results

- Reduce sensitivity
- Reduce exposure
- Enhance adaptive capacity
- Support continued learning and action

