



# **Coping Strategies**

## Example of a vulnerability assessment

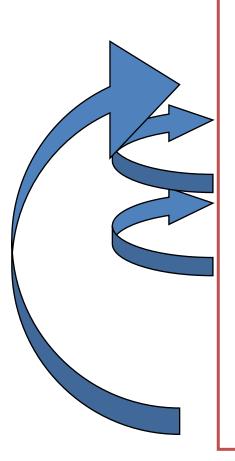
Bano Mehdi Advanced Integrated Water Resources Management course Bridgetown, September 26, 2007

# Vulnerability assessment

Typically seeks to achieve 3 main goals:

- 1. Identify degree of future risks associated to climate change
- 2. Identify key vulnerable sectors and areas within a country
- 3. Provide a sound basis for designing adaptation strategies and their implementation

## Vulnerability Assessment Approach (example of one approach to adaptation)



**Engage affected parties** Assess current vulnerability Estimate future conditions Estimate future vulnerability Decisions and implementation



## **Vulnerability Assessment Approach**

#### 1. Engage interested parties

Important to both engage and retain interested parties, e.g. those affected and key decision makers

#### 2. Assess current vulnerability

Use experience to assess impacts and potential damages (environmental, socio-economic and political)

#### 3. Estimate future conditions

Involves using climate, environmental and socio-economic scenarios, and gauging policy and development.

#### 4. Estimate future vulnerability and identify adaptation strategies

Is determined by using the two previous steps (current vulnerability and future conditions)

#### 5. Decisions and implementation

Incorporate results into risk management strategies.

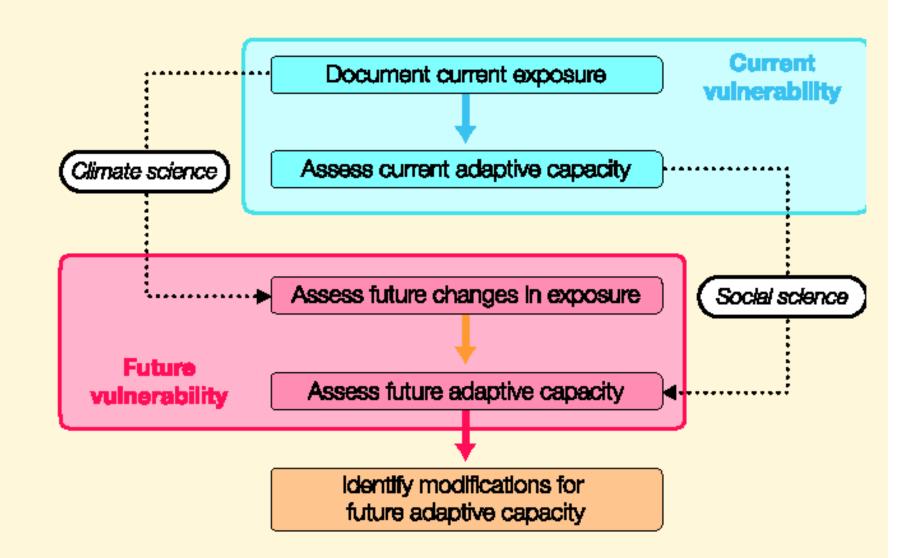
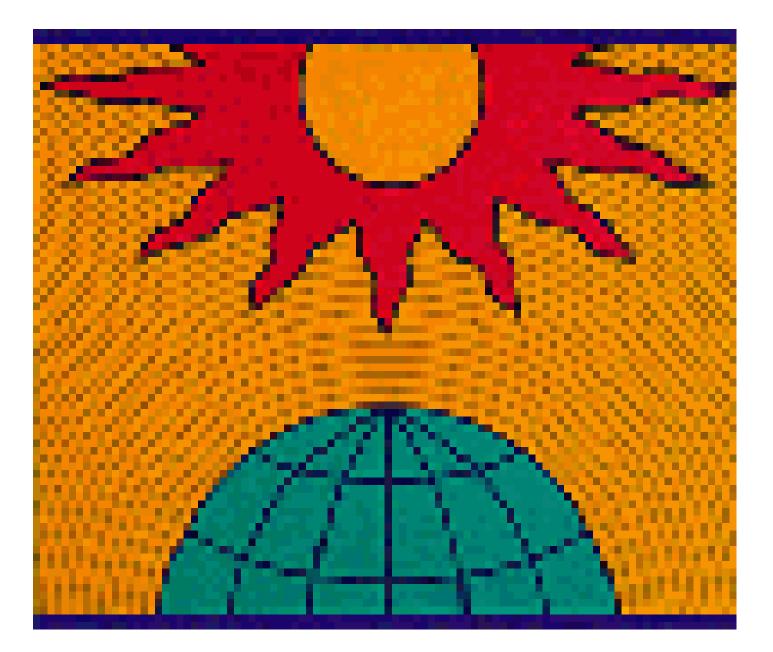


Figure 16.3. The main steps of a community vulnerability and adaptation assessment and action approach.

Sutherland et al. 2005



# Impacts on agriculture

- Changes in production patterns
- Variable precipitation patterns
- Increases in crop damage
- Water shortages
- New, unpredictable changes in the interactions among crops, weeds, insects, and disease.
- Opportunities may also arise;
  - Longer growing season
  - notably a northward extension of crop lands and grazing zones

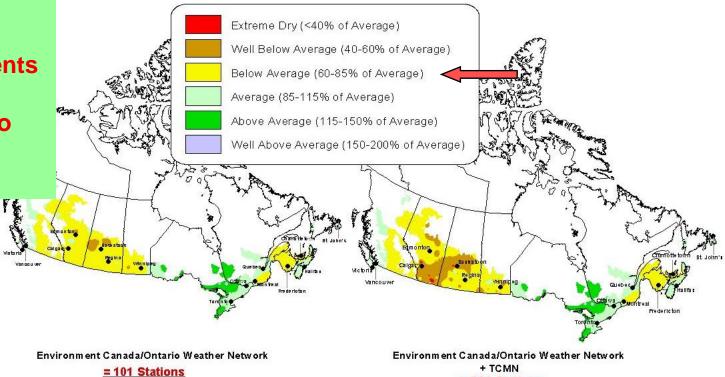
### **Agricultural adaptation focus**

 Water conservation – soil moisture, irrigation efficiencies, BMPs. Reliable source of water – securing a source of water Updated erosion control design criteriawith increased intensities of short duration rainfall events •Examine socioeconomic barriers to adoption of BMPs



### Percent of Average Precipitation in Agricultural Areas

September 1, 2001 to April 30, 2002



= 231 Stations