# IMPACTS AND ADAPTATION TO CLIMATE CHANGE

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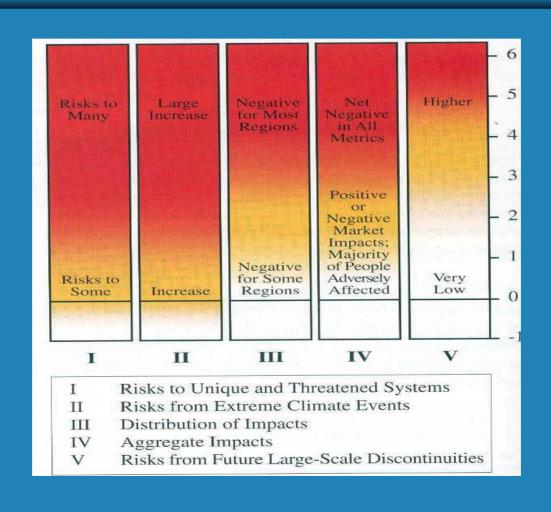
### **Outline of Presentation**

- **№ Impact of CC differs across Regions & Sectors**
- *A* **Predicted Impacts of CC in the LDCs**
- **Output** Differential Vulnerabilities among Social Groups in the LDCs
- **Adaptation A New Variable in LDC Dev**
- **№ What Kind of Adaptation in the LDC Context**

#### Predicted Impacts of CC

- √ I/Y = Magnitude & rate of global & regional changes in mean climate, climate variability & extreme events, socio-economic conditions & adaptation
- **A Impact Assessment still imperfect**
- ର Impacts on Human Systems Our Prime Concern

### CC: Reasons for Concern (wgii, tar-ipcc)



### Why are the LDCs most vulnerable?

- **A** Geographical location low latitude Cs
- *ℚ* Economy depends on climate sensitive activities
- Double exposure' to CC & Globalization make the LDCs `double loser' who face `structural omissions' in the existing order
- **Non-climatic factors reinforce I & Vs**

#### What are the Impacts in the LDCs?

- Diminished access to water resources as precipitation decreases
- *Q* Greater food insecurity
- **a** Irreversible loss of biodiversity
- **a** Increased incidence of vector- & water-borne diseases
- **Sea level rise & greater incidence of flooding**
- **Exacerbated desertification**

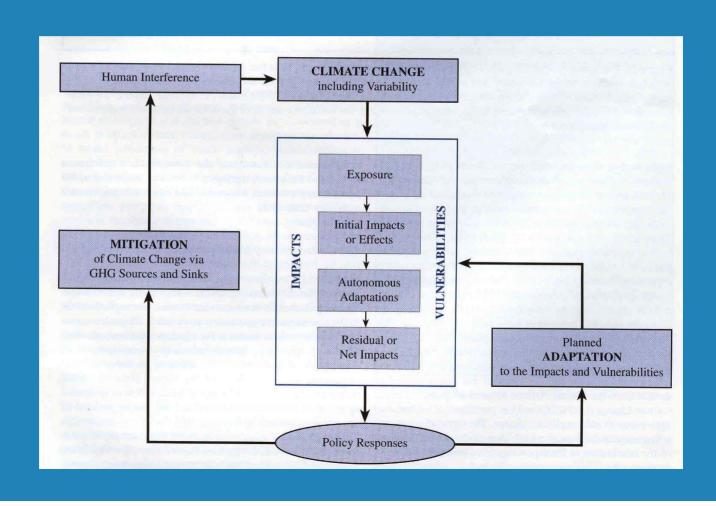
# Differential Vulnerabilities among Social Groups in the LDCs

- ∇ of Human Systems = Levels of Exposure, Sensitivity & Adaptive Capacity
- Livelihood support systems of the Poor, landless, marginalized & women are more vulnerable to CC because they are more vulnerable to other socio-econ stresses
- **A Inequity/lack of empowerment is the barrier**

# Adaptation to CC - A New Variable in LDC Development

- $\mathcal{Q}$  Adaptation (A) complements mitigation (M)
- **∂** CC Impacts add new level of complexity in planning for SD
- **Non-M in the A1Cs & A there enhances adaptation needs in the LDCs**
- **Adaptation to CC Prime Concern to LDCs**

#### Climate Change Policy Framework



### What Kind of Adaptation in the LDC Context?

#### **⊘** Types of Adaptation (wgil, tar-ipcc):

	i.	Anticipatory	Reactive
Natural Systems			<ul> <li>Changes in length of growing season</li> <li>Changes in ecosystem composition</li> <li>Wetland migration</li> </ul>
Human Systems	Private	<ul> <li>Purchase of insurance</li> <li>Construction of houses on stilts</li> <li>Redesign of oil rigs</li> </ul>	<ul> <li>Changes in farm practices</li> <li>Changes in insurance premiums</li> <li>Purchase of air-conditioning</li> </ul>
	Public	<ul> <li>Early-warning systems</li> <li>New building codes, design standards</li> <li>Incentives for relocation</li> </ul>	<ul> <li>Compensatory payments, subsidies</li> <li>Enforcement of building codes</li> <li>Beach nourishment</li> </ul>

### Approaches to Adaptation

- Technical adaptation preferred by technocrats
- Societal adaptation more challenging, but needed most in the LDCs