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# **Addressing Climate Risks in Support of Development**

**Aspen Global Change Institute**

**August 6, 2012  
John Furlow, USAID**

# USAID at a glance

- An independent agency under the general policy guidance of the US Secretary of State
- Operating in 100 countries with over 75 field offices
- \$ billions invested annually in:
  - Water and sanitation
  - Agriculture
  - Democracy & governance
  - Economic growth & trade
  - Environment
  - Education & training
  - Health
  - Humanitarian assistance



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# USAID's Climate Change Program

**Overall Goal: Assist countries as they develop in ways that reduce emissions while building resilience to climate change impacts**

**Clean Energy:** 23 countries, 11 Regions/Bureaus

Reducing net GHG emissions by spurring the deployment of clean energy technologies. Priority areas: energy efficiency, low-carbon energy, clean transport, and energy sector reforms.

**Sustainable Landscapes:** 14 Countries, 5 Regions/Bureaus

Reducing net greenhouse gas emissions from the land use sector (e.g., tropical forest destruction and degradation) and augmenting sequestration of carbon in landscapes, including building capacity to measure, report, and verify emissions reductions.

**Adaptation:** 19 Countries, 12 Regions/Bureaus

Building capacity in vulnerable countries and communities to prepare for, reduce, or cope with negative impacts of climate change; Designing resilience into development assistance.



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# USAID's Climate and Development Strategy



- Adaptation emphasizes:
  - Highly vulnerable countries
  - Ability or willingness to respond
  - LDCs, SIDS, Glacier-dependent countries



**CLIMATE CHANGE  
& DEVELOPMENT**

**Clean Resilient  
Growth**

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CLIMATE CHANGE  
& DEVELOPMENT  
STRATEGY**

**JANUARY 2012**

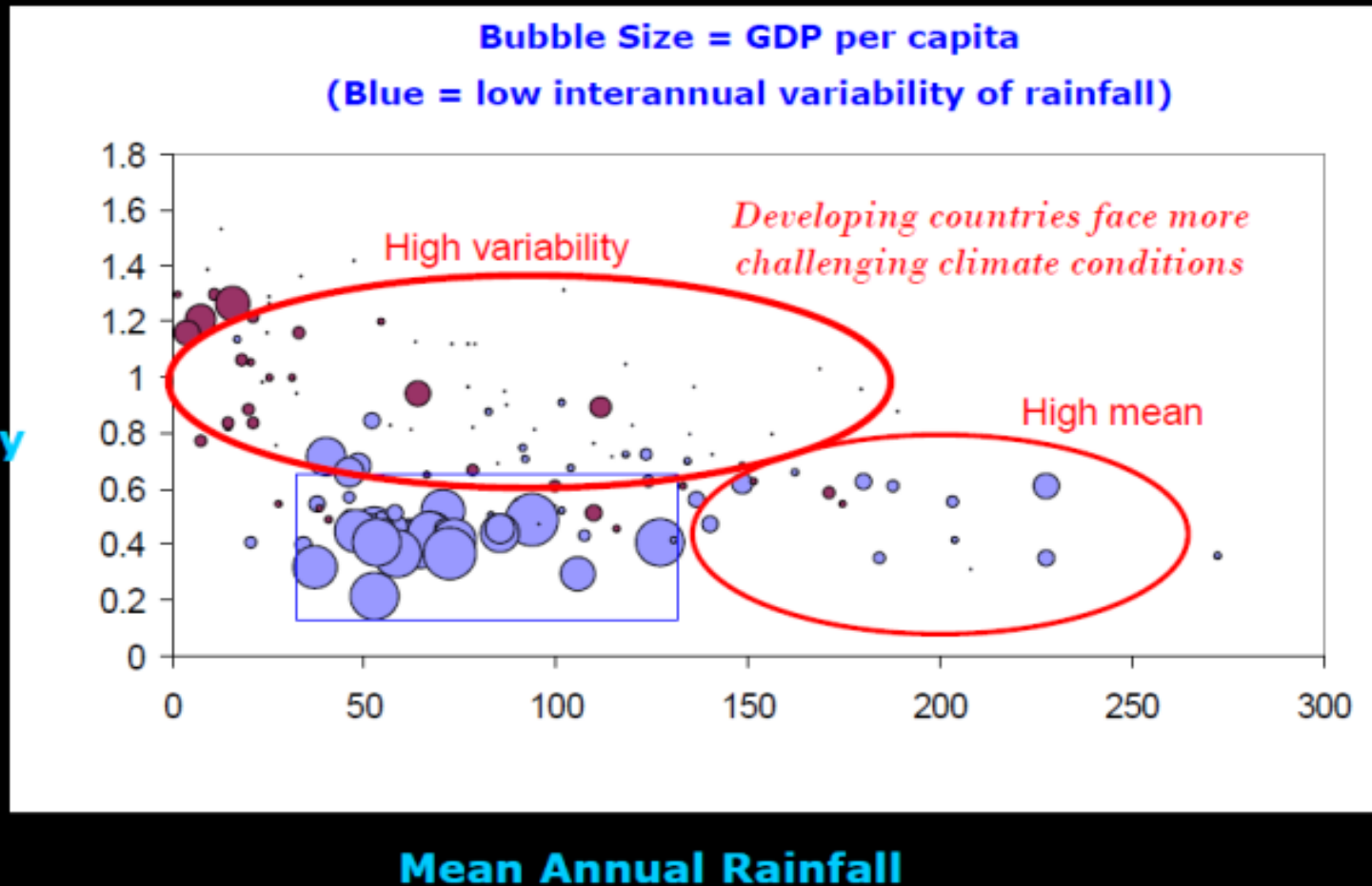


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# Rainfall Variability and GDP

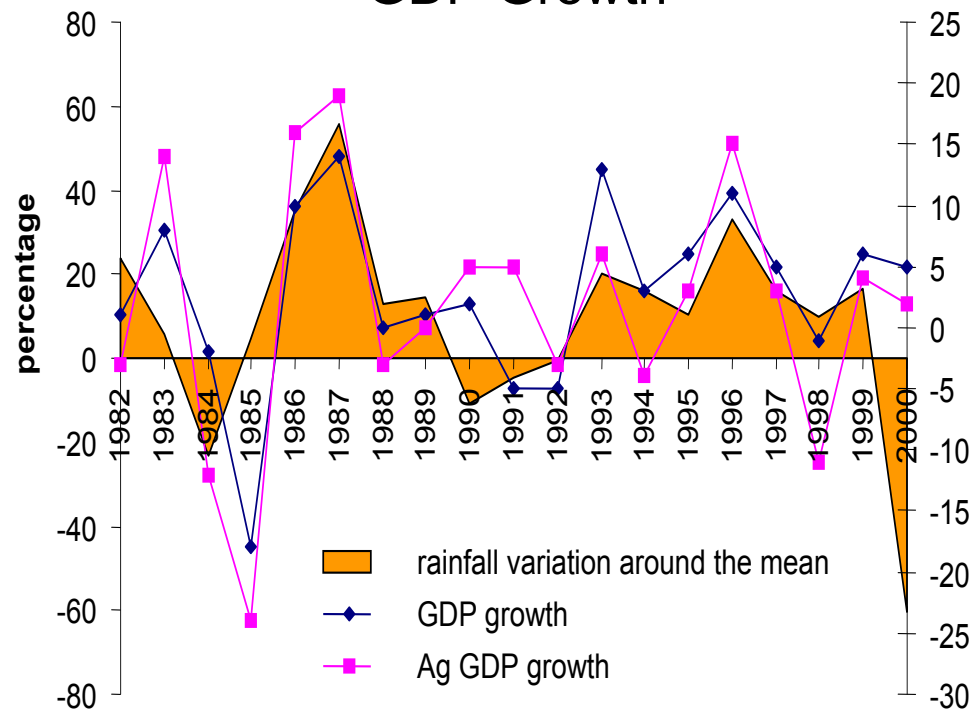
Monthly  
Rainfall  
Variability



# Weather, Climate, and Economics

- Developing country economies concentrated in climate sensitive sectors
- ~70% of developing country populations derive income from agriculture

Ethiopia: Rainfall, Ag GDP, GDP Growth

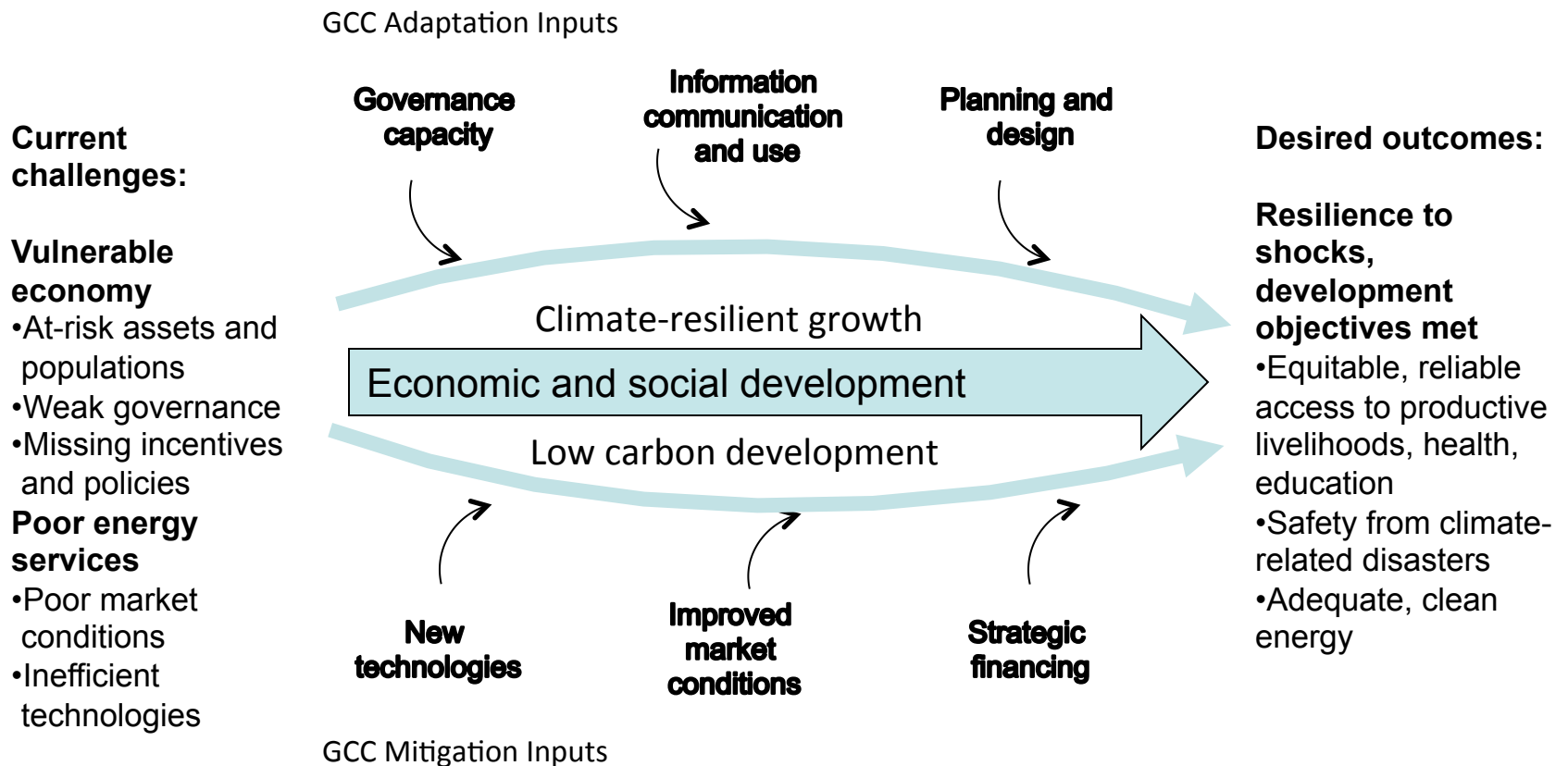


Source: The World Bank, "Managing Water Resources to Maximize Sustainable Growth: A Country Water Resources Assistance Strategy for Ethiopia." 2005.



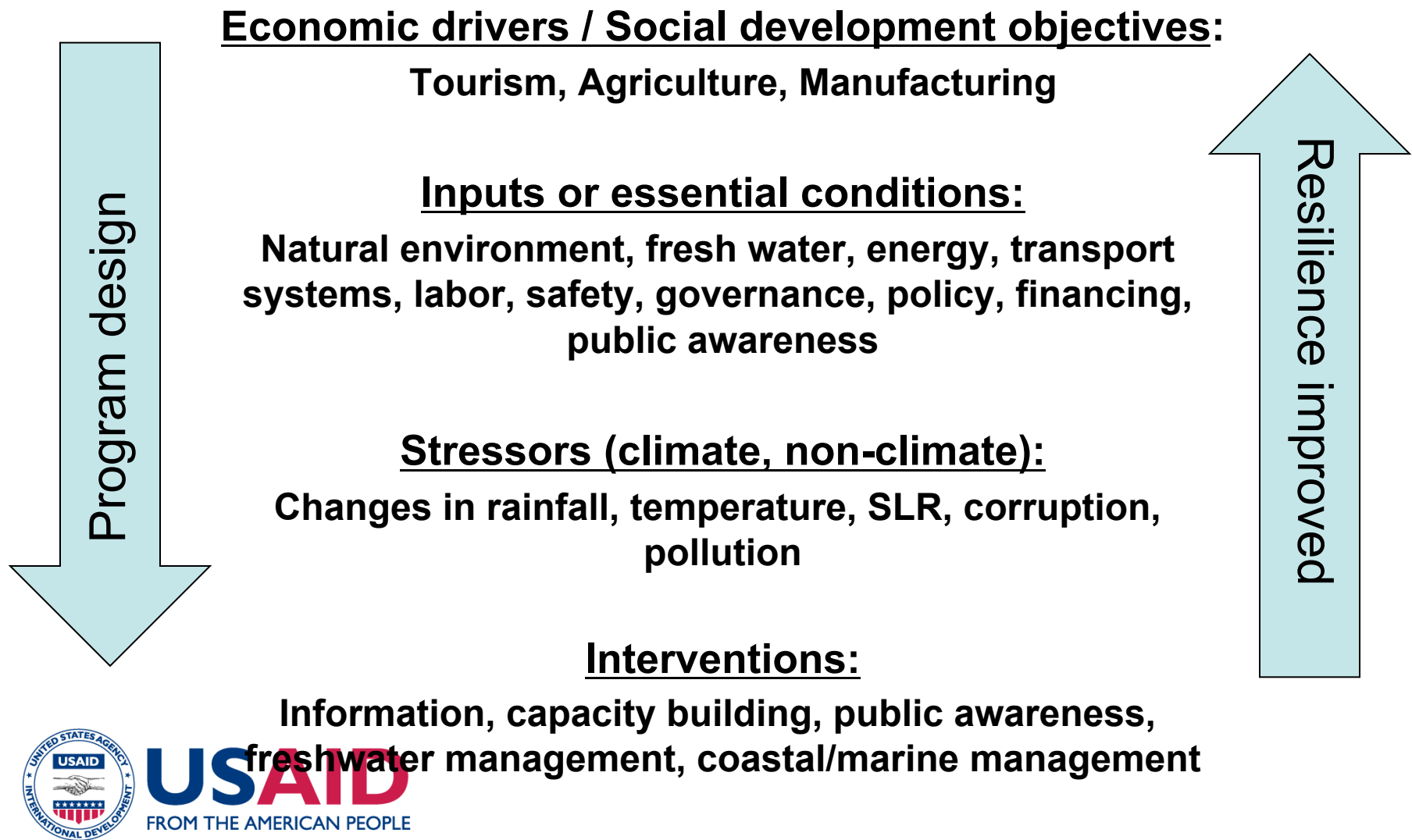
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# Low Carbon, Climate Resilient Growth



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# Climate Stress in the Development Context





National Goals	National Outcomes
<b>1</b> Jamaicans are empowered to achieve their fullest potential	1. A Healthy and Stable Population
	2. World-Class Education and Training
	3. Effective Social Protection
	4. Authentic and Transformational Culture
<b>2</b> The Jamaican society is safe, cohesive and just	5. Security and Safety
	6. Effective Governance
<b>3</b> Jamaica's economy is prosperous	7. A Stable Macroeconomy
	8. An Enabling Business Environment
	9. Strong Economic Infrastructure
	10. Energy Security and Efficiency
	11. A Technology-Enabled Society
	12. Internationally Competitive Industry Structures <ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Manufacturing</li> <li>• Mining and Quarrying</li> <li>• Construction</li> <li>• Creative Industries</li> <li>• Sport</li> <li>• Information and Communications Technology</li> <li>• Services</li> <li>• Tourism</li> </ul>
	13. Sustainable Management and Use of Environmental and Natural Resources
	14. Hazard Risk Reduction and Adaptation to Climate Change
	15. Sustainable Urban and Rural Development
<b>4</b> Jamaica has a healthy natural environment	

Table 2: National Outcomes Linked to Goals



Event 1 [INT. COMP.]

INT. COMP.  
INDUSTRY

Agriculture

Crops/  
Livestock

JAS/pests

INLAND FLOODING

MIGRATION

TROPICAL STORMS/  
HURRICANES

INCREASES IN TEMPERATURE

CHANGES IN THE TIMING OR  
AMOUNT OF PRECIPITATION

SEA LEVEL RISE

POLLUTION

COASTAL FLOODING

LAND USE CHANGE

INCREASED INTENSITY OF  
RAINFALL

DROUGHT

DEFORESTATION

JAS/pests

Crops/  
Livestock





Deforestation Sea level rise

**Crime and violence**

Increases in temperature Heat waves Increased intensity of rainfall

Lack of funding **Migration** Land use change

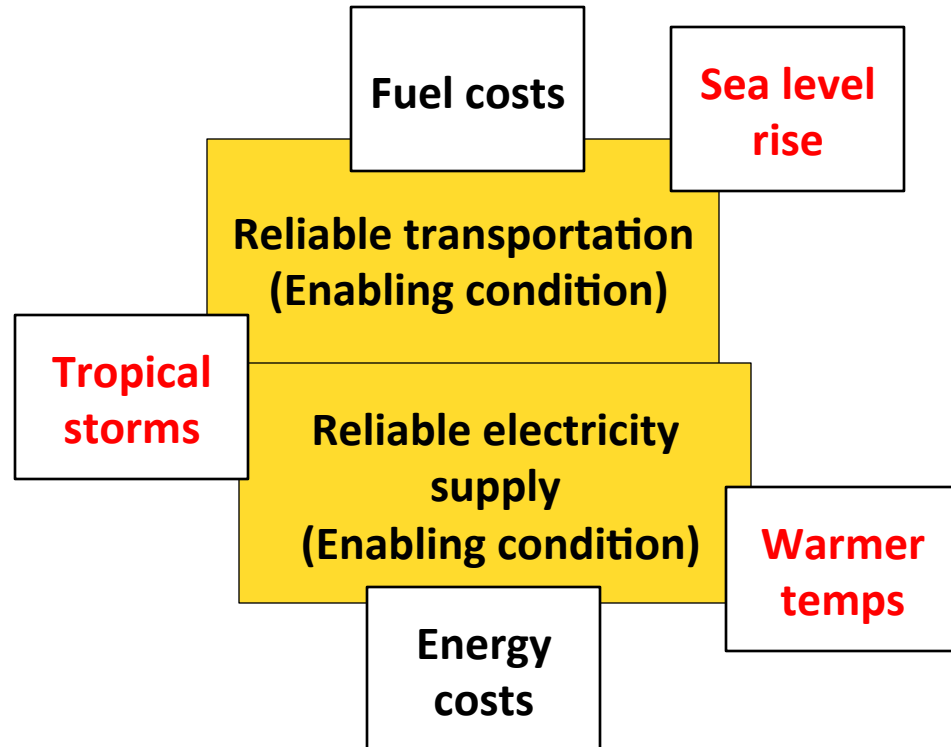
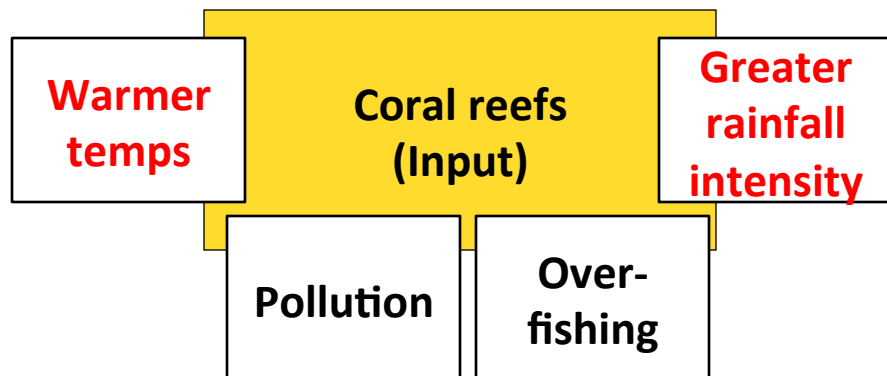
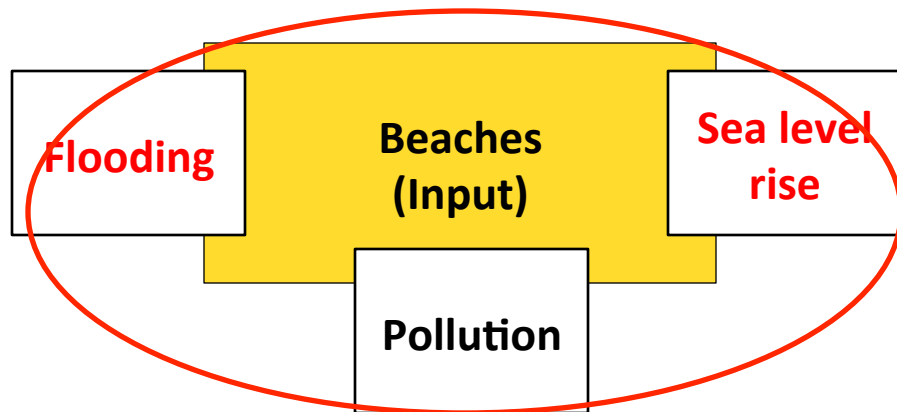
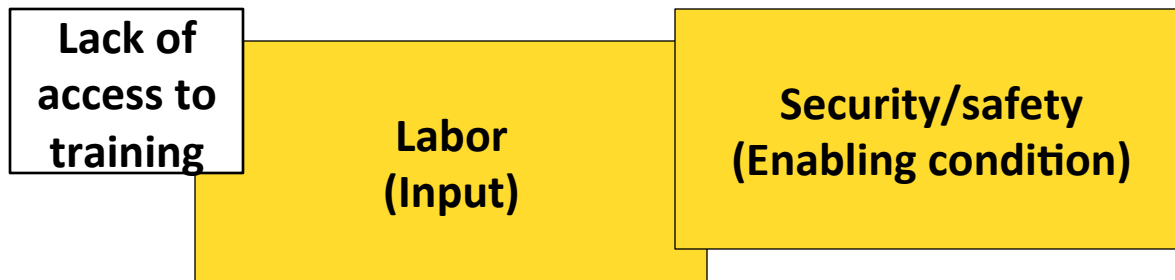
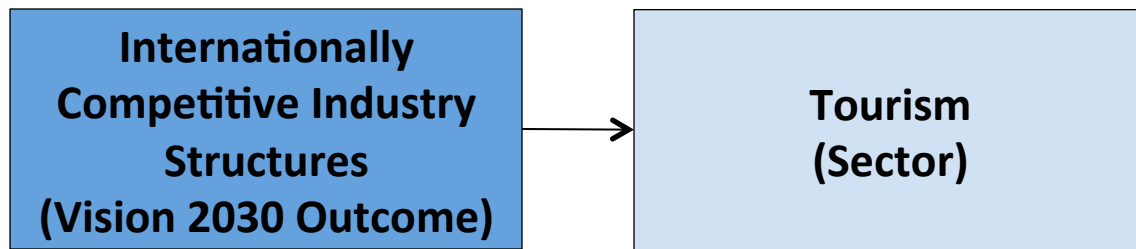
Drought **Population growth** Inland flooding

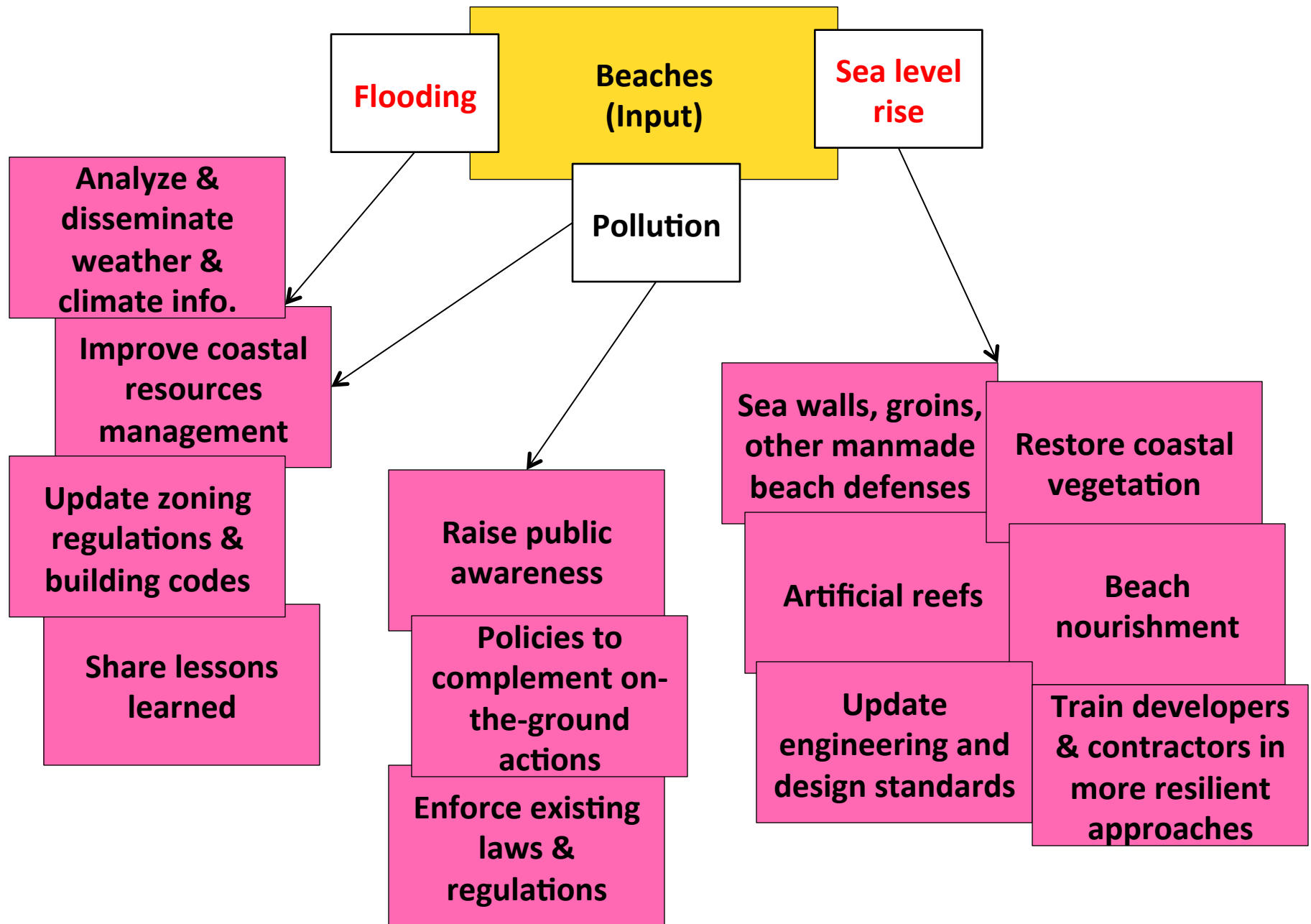
**Tropical storms/hurricanes**

Pollution Coastal flooding

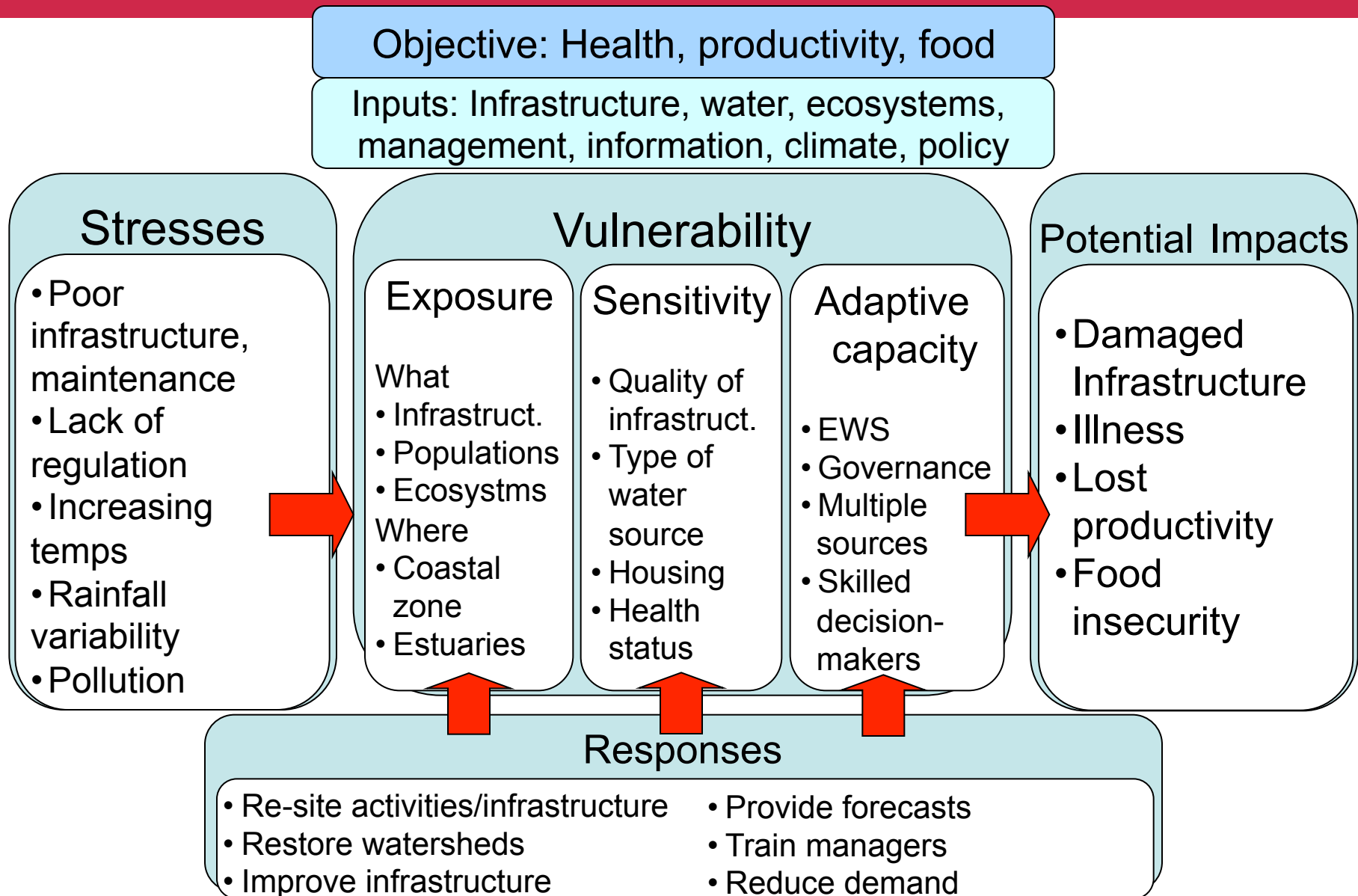
Changes in the timing or amount of precipitation

Warmer sea temperatures Lack of infrastructure Sea level rise Deforestation Increases in temperature Heat waves Increased intensity of rainfall Lack of funding Lack of political will and commitment Lack of political will Corruption Government Policy Poverty Lack of infrastructure Ocean acidification





# Analysis: from Objective to Response



# Some Challenges to Adaptation

## Technical

- Poor historical records
- Poor current weather data
- Low local capacity
- GCM uncertainty
- Poorly adapted to current conditions
- Matching scale of decisions to scale of information

## Social

- Competing Interests
- Too many challenges
- “more pressing needs”
- Poor understanding of climate change
- Poor understanding of development
- Intimidating topic
- Limited experience



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# USAID's Adaptation case studies

- **Honduras:** coastal zone development
- **Mali:** rice and potato production
- **South Africa:** municipal water sources
- **Thailand:** fisheries, rice production
- **Madagascar:** protected areas management and livelihoods
- **Coastal Hazards:** building resilience to multiple hazards
- **Andes/Himalaya:** adapting to a world without glaciers
- **West Africa:** improving information for decision making



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# Thank You



- USAID Climate Page
  - [http://www.usaid.gov/our\\_work/environment/climate/index.html](http://www.usaid.gov/our_work/environment/climate/index.html)
- State Department Fast Start Finance
  - <http://www.state.gov/g/oes/rls/rpts/faststart/index.htm>
  - Climate One Stop
    - <http://arcserver4.iagt.org/climate1stop/>



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