12th Bonn Dialogues, 5th of October

Climate change, social vulnerability and resilience

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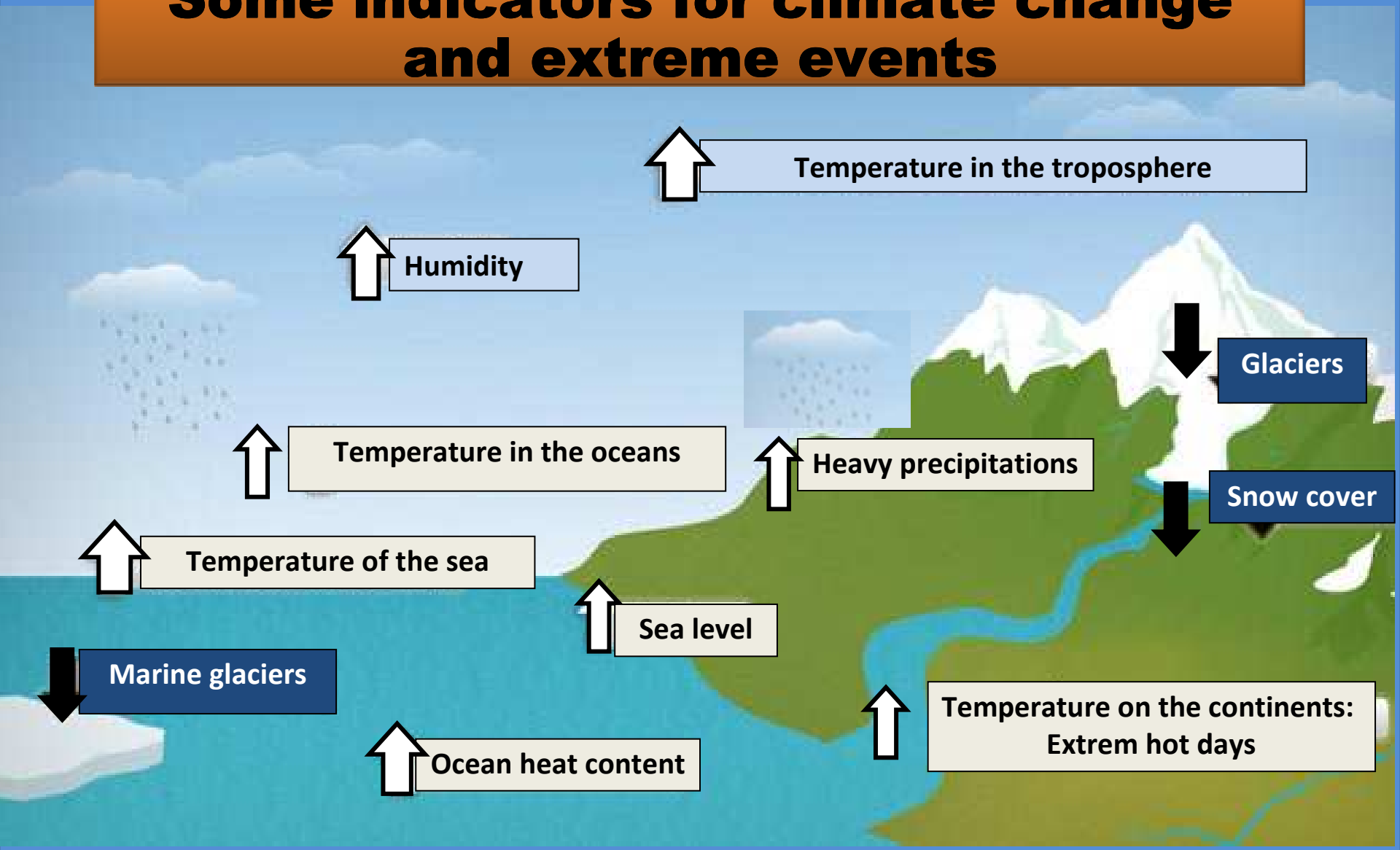
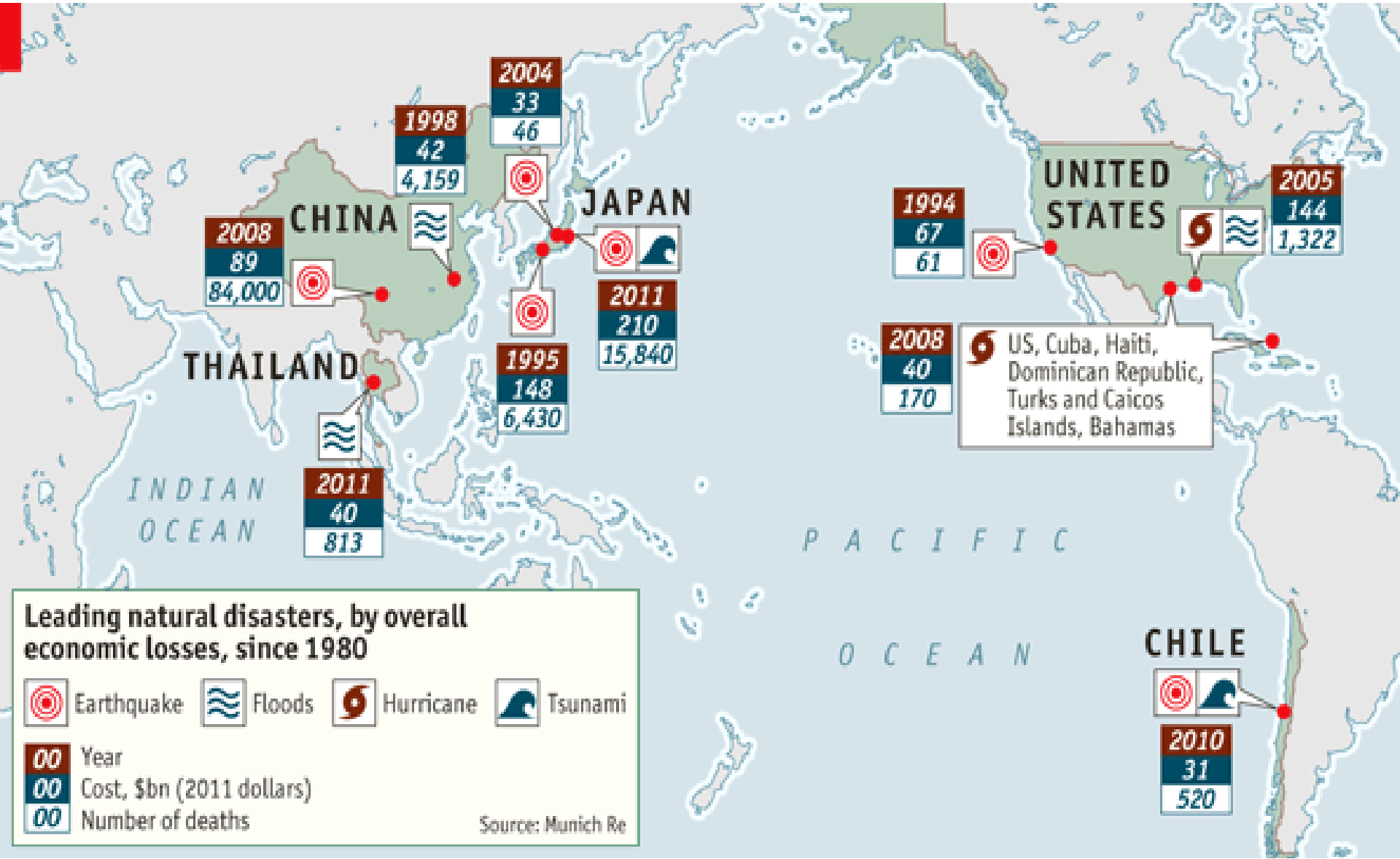
Some indicators for climate change and extreme events



Biggest disasters in 3 decades



Economic losses from climate-related disasters have increased, with large spatial and interannual variation, but are higher in industrialized countries, while fatalities are higher in developing countries.

Managing the risks: hurricanes in Mexico, Cental America and the Caribbean

Risk Factors

- population growth
- increasing property value
- higher storm surge with sea level rise

Risk Management/ Adaptation

- better forecasting
- warning systems
- stricter building codes
- regional risk pooling

Projected globally: *likely* increase in average maximum wind speed and associated heavy rainfall (although not in all regions)

ipcc mate change WMO UNEP

Gender vulnerability and women's discrimination increase vulnerability of exposed communities: even non-extreme events can have extreme impacts in loss of lives and livelihood

Managing the risks: drought in the context of food security in the drylands

Risk factors

- more variable rain
- ecosystem degradation
- hotter days
- discrimination of women
- poor health and education conditions

Risk Management/ Adaptation

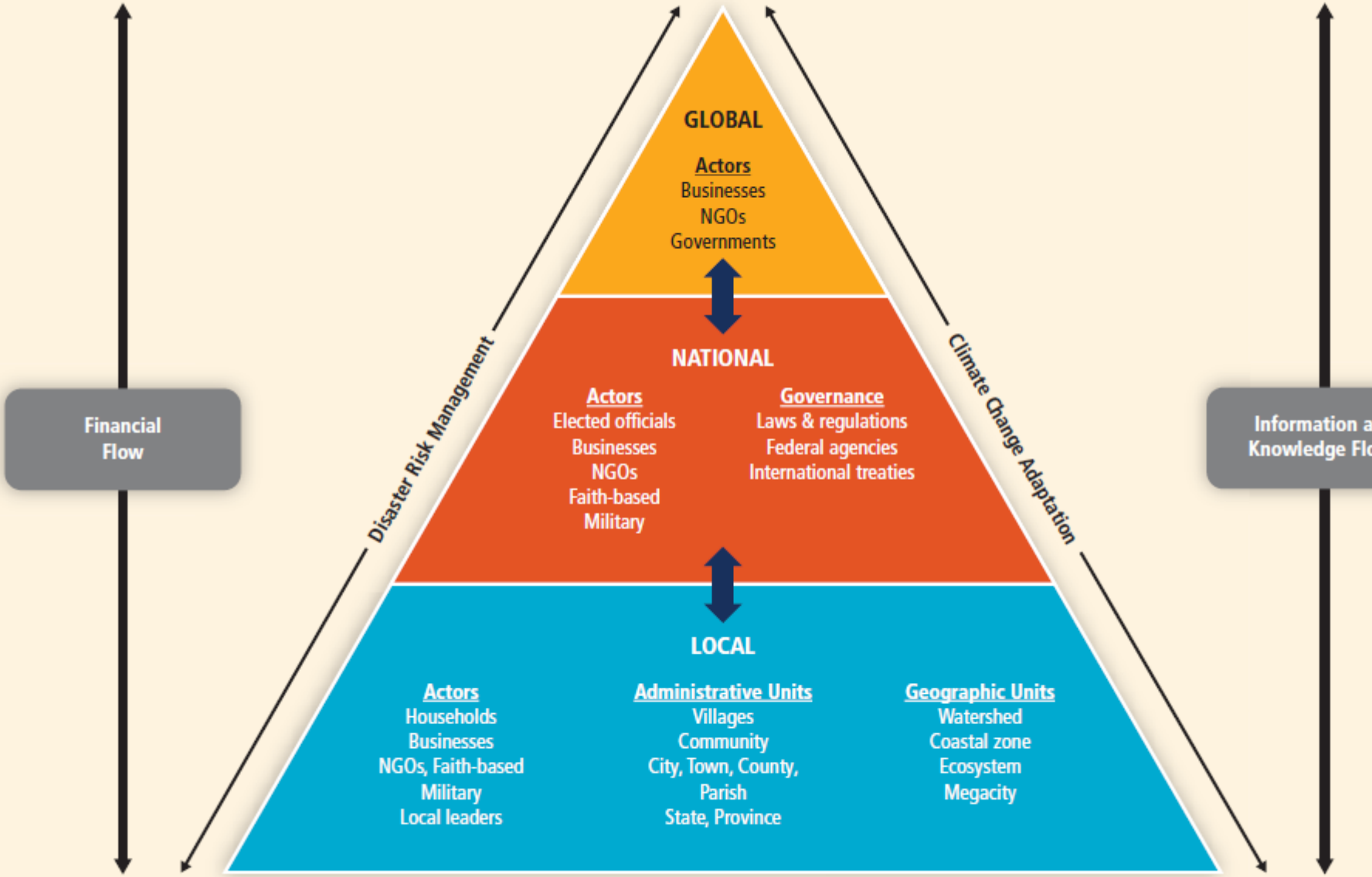
- improved water management
- sustainable farming practice
- drought-resistant crops
- drought forecasting

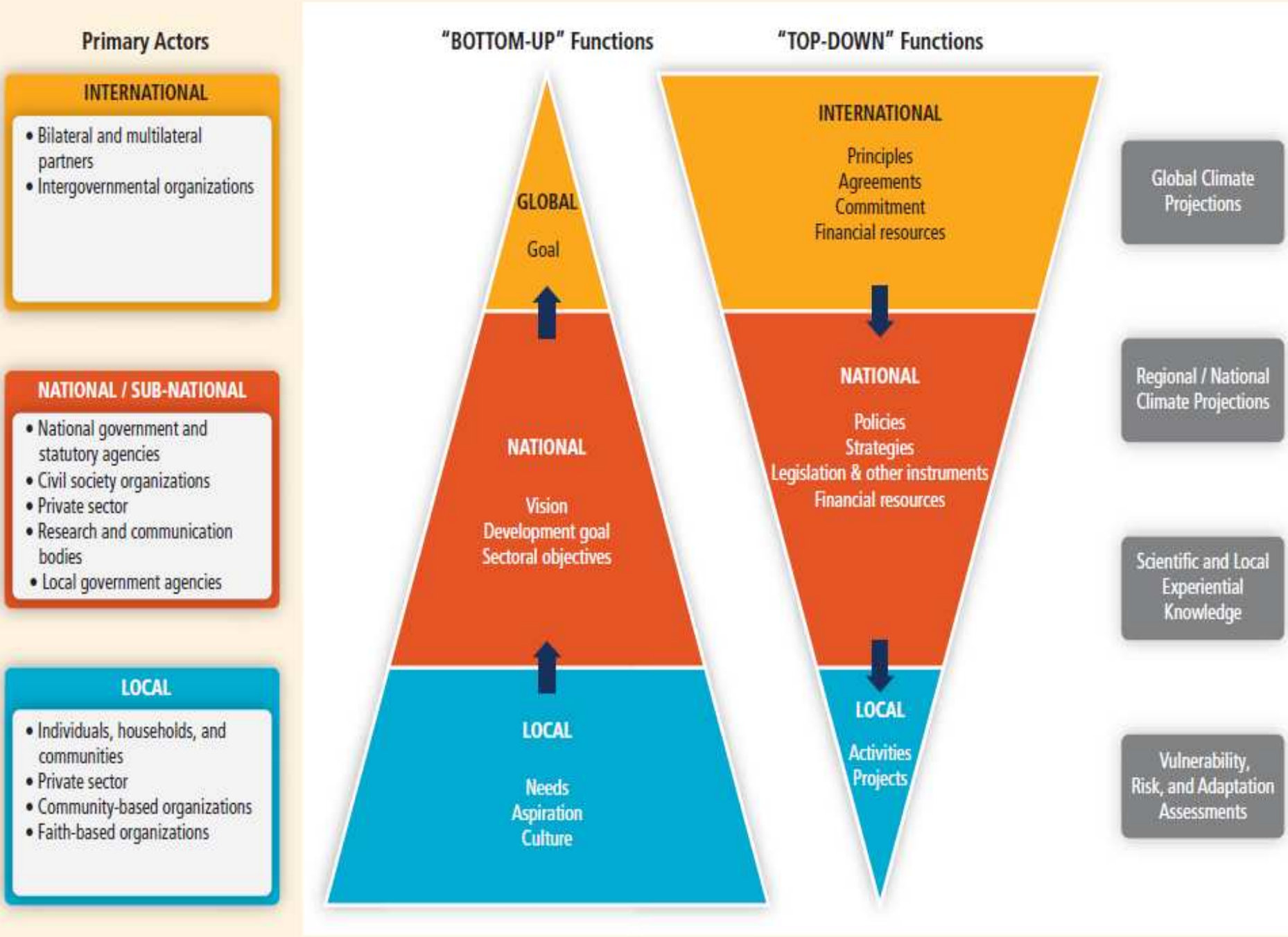
Gender empowerment reduces social vulnerability and climate risks

- Between **68-89%** of deaths occurs among **women and girls** due to long-term discrimination & self-identity of women to **care** for others
- **Information & training** on vulnerability, exposure, climate extremes, DRR, and resilience-building help people **reducing their risks** and getting prepared for **unknown and unpredictable threats**
- Integrated **water** management, sanitation and drainage improve health, wellbeing and reduce risks of **waterborne diseases**
- **Drought** forecasting, sustainable **farming** practices, drought resistant seeds and early warning reduce risks of hunger
- **Adaption** to changing climate conditions includes maintenance of draining systems, regional risk pooling, relocation from risky locations, early **evacuation** and **disaster risk reduction training**
- **Sustainable development** in the near term reduces longer term social vulnerability
- Managing risks now help **improve livelihood** and wellbeing
- Women maintain **social networks** during normal times and support communities and families during disasters

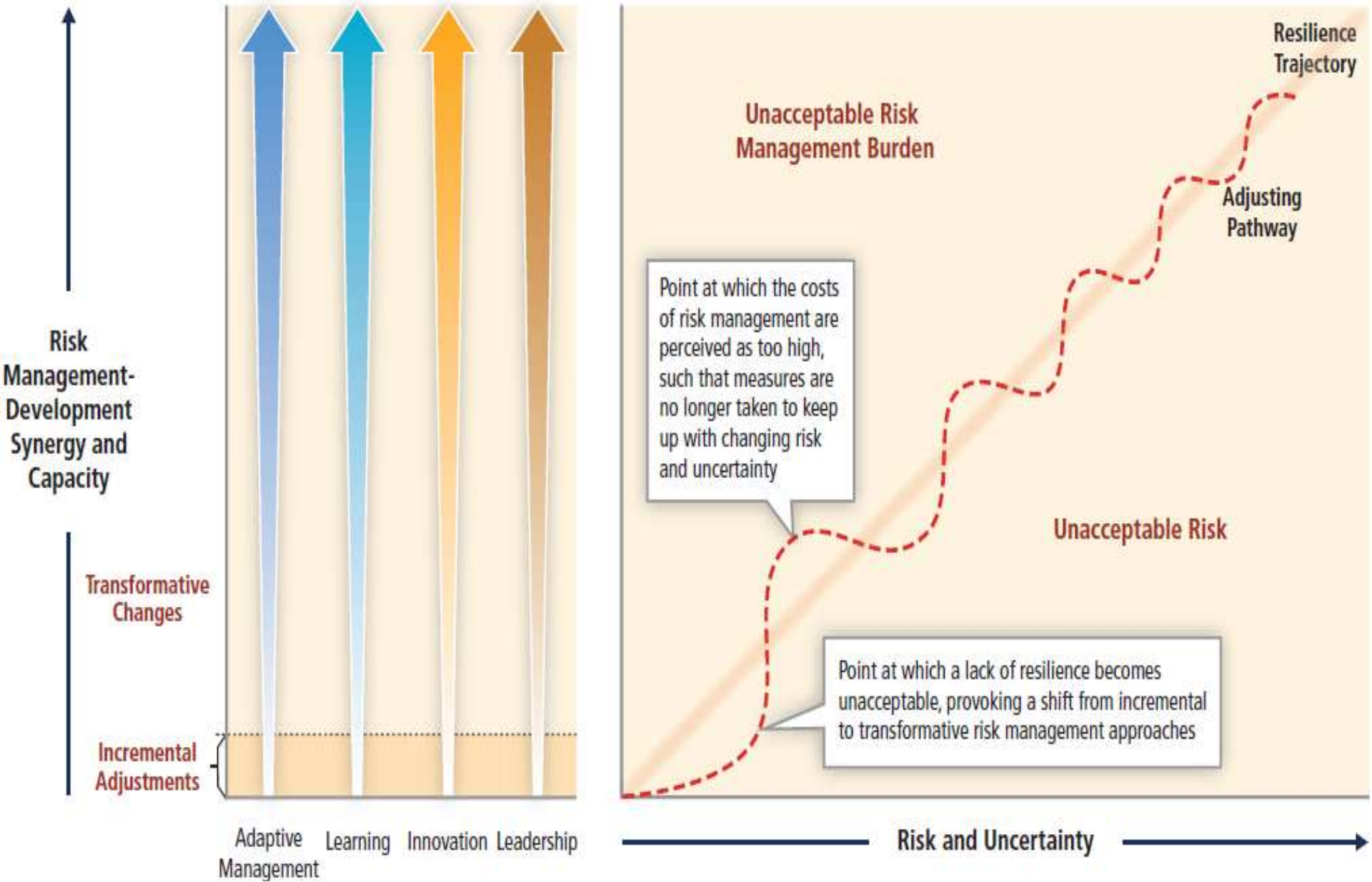

Local actors with high social vulnerability

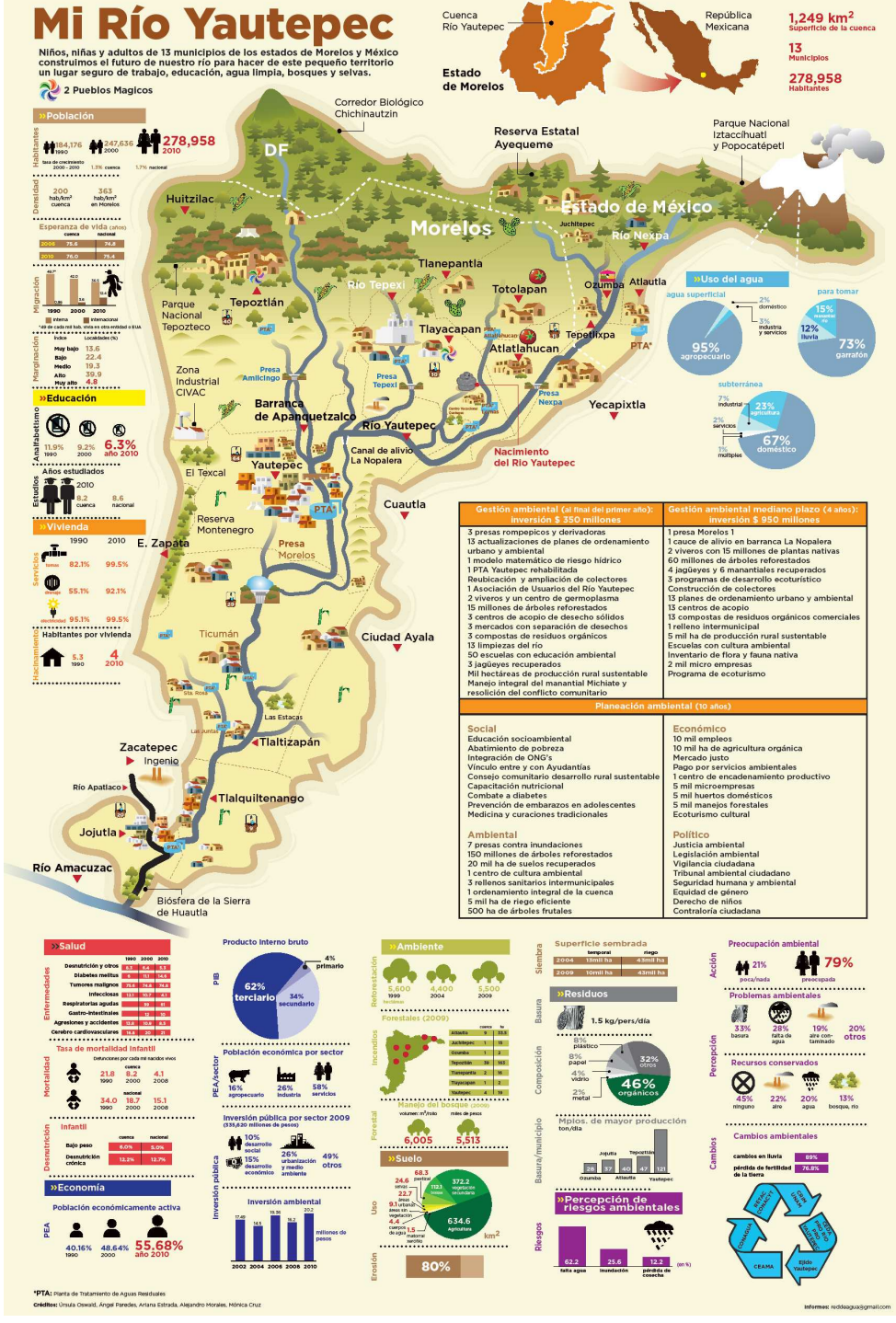
Linking local to global actors and responsibilities




Primary Actors
INTERNATIONAL
• Bilateral and multilateral partners
• Intergovernmental organizations
NATIONAL / SUB-NATIONAL
• National government and statutory agencies
• Civil society organizations
• Private sector
• Research and communication bodies
• Local government agencies
LOCAL
• Individuals, households, and communities
• Private sector
• Community-based organizations
• Faith-based organizations
"BOTTOM-UP" Functions
GLOBAL
Goal
NATIONAL
Vision
Development goal
Sectoral objectives
LOCAL
Needs
Aspiration
Culture
"TOP-DOWN" Functions
INTERNATIONAL
Principles
Agreements
Commitment
Financial resources
NATIONAL
Policies
Strategies
Legislation & other instruments
Financial resources
LOCAL
Activities
Projects
Global Climate Projections
Regional / National Climate Projections
Scientific and Local Experiential Knowledge
Vulnerability, Risk, and Adaptation Assessments

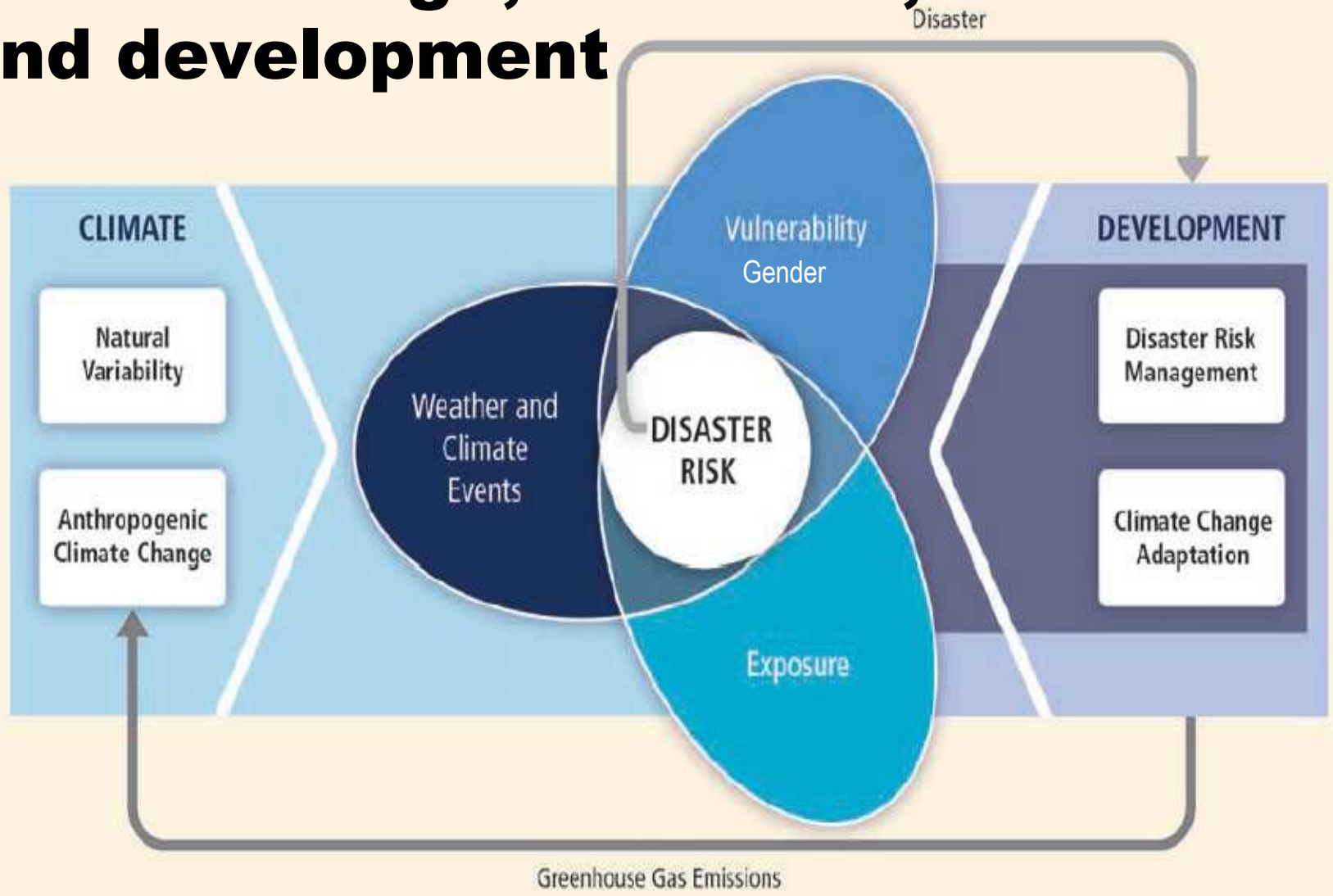
Incremental & transformative pathways to resilience



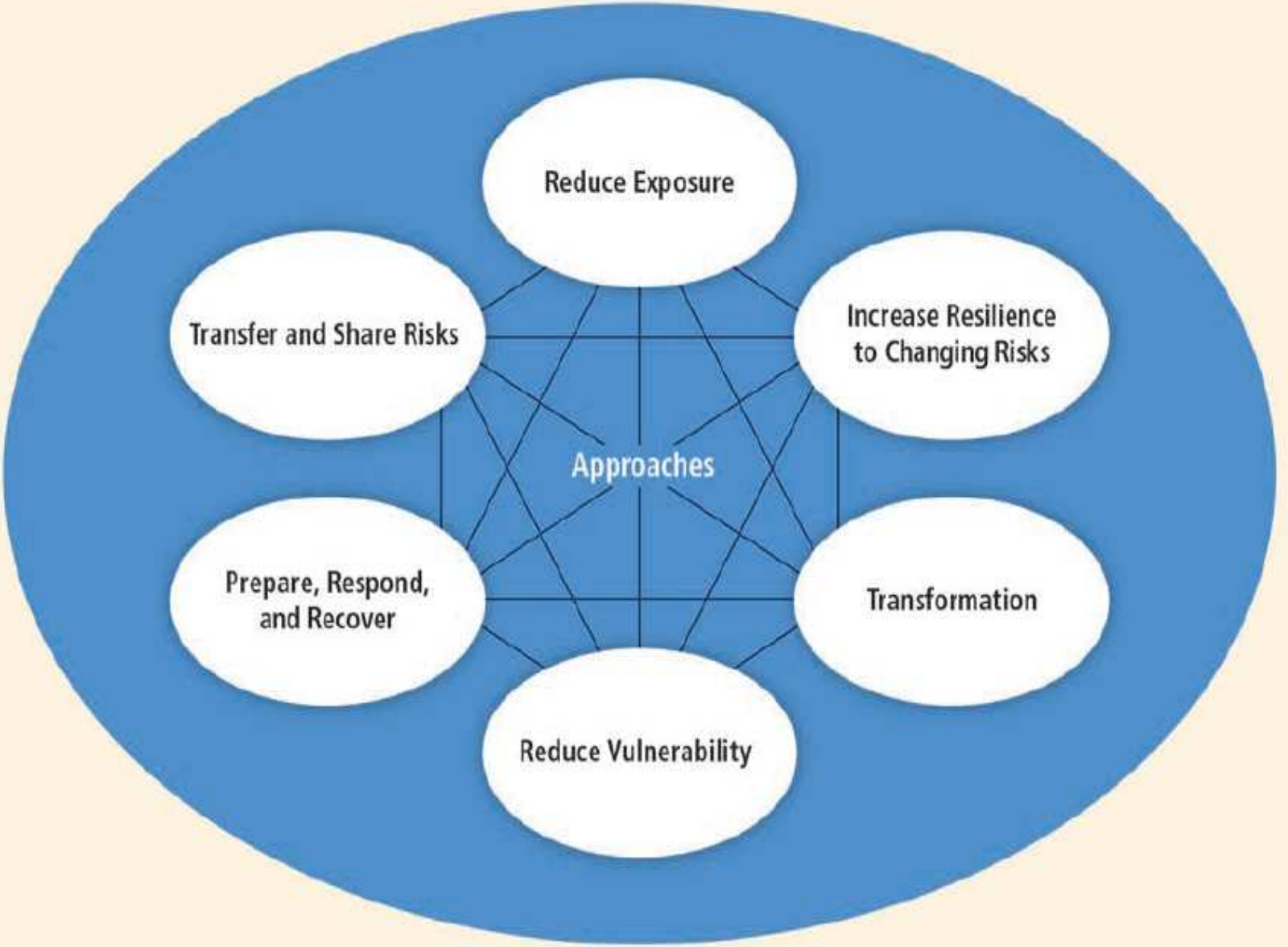


Peasants, traders, micro-entrepreneurs, social movements, NGO's, citizens, scientists, people affected by disasters, women, children, teachers and the three levels of government developed an integrated basin management of the River Yautepec for reducing risks increased by climate change and are promoting a transition to sustainability from local niches.

Climate Change, disasters, vulnerability and development

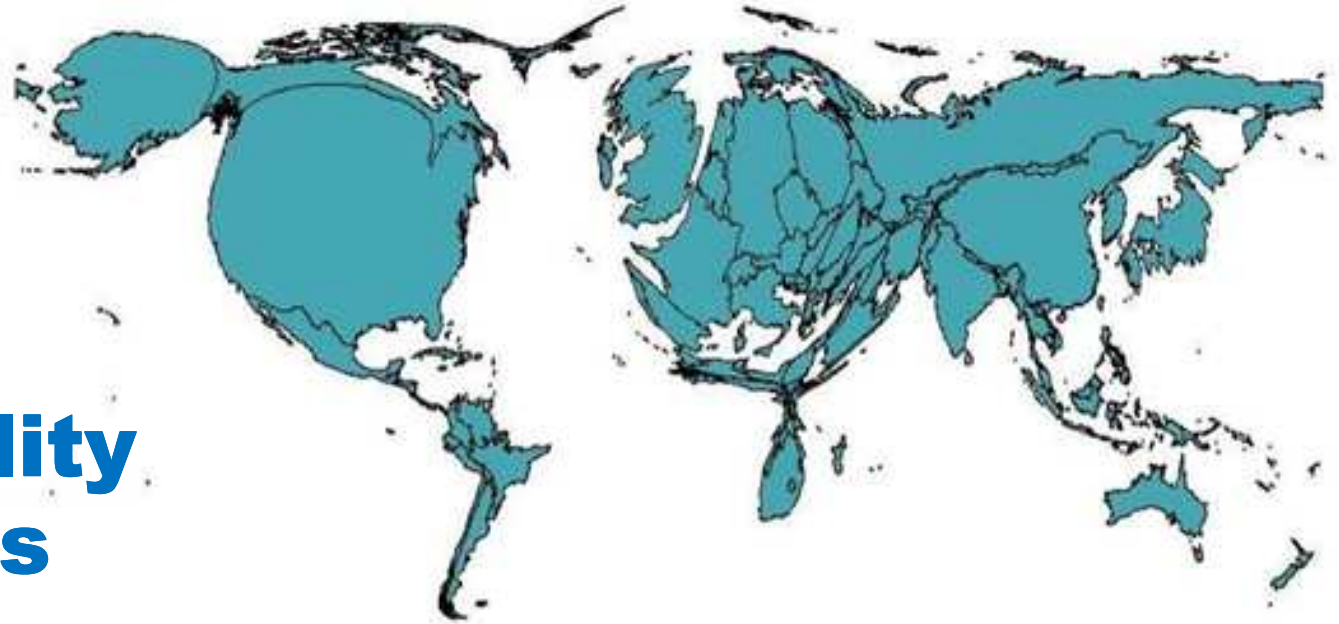


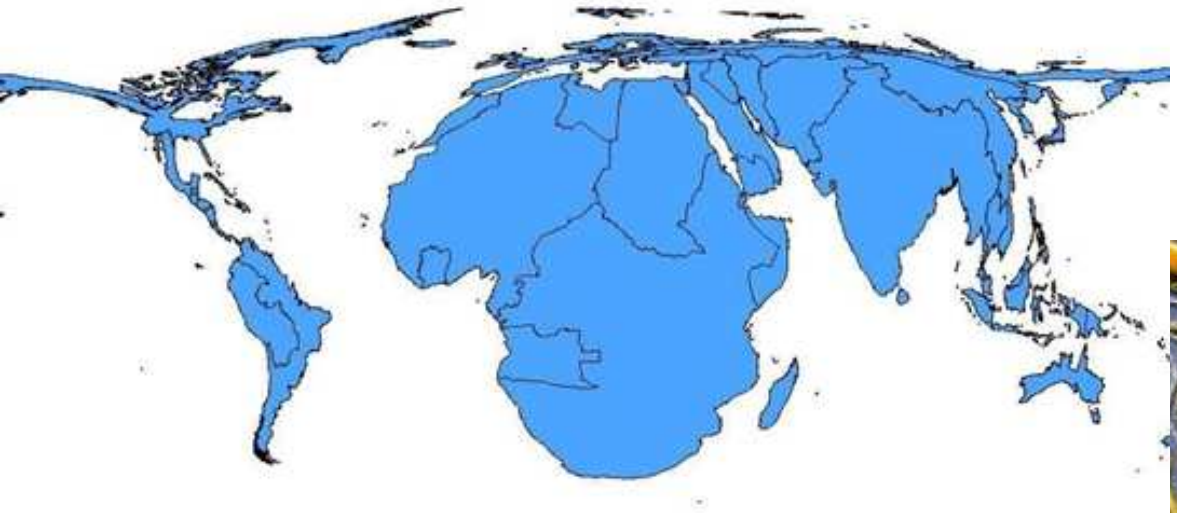
Adaptation and Disaster Risk Management Approaches for a Changing Climate



Global responsability and ethics

Cumulative Greenhouse Gas Emissions, 2002





Mortality rate attributable to climate change, 2000

Patz et al., 2007


Thank you for your attention