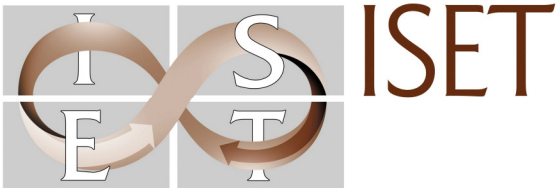


# URBAN RESILIENCE

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Insights from recent work under the Asian  
Cities Climate Change Resilience Network



Marcus Moench

# The Challenge

- Increasing global rates of urbanization – 50% of the world's population now urban
- The impacts of climate change and other hazards on urban areas likely to be major
  - Extreme events & pulsed disaster risks
  - Impacts on key sectors and systems (some location specific, some systemic across locations and scales)
  - Marginalized and other populations
- Most work on climate impacts and adaptation focused on rural areas
- Experience (practice) and frameworks lacking for urban areas

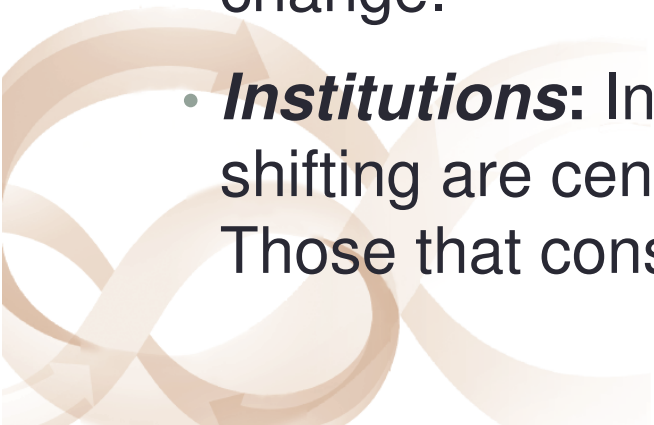
# The ACCCRN initiative

- Ten cities in South & South-East Asia
- Diverse Partners
- A common but differentiated engagement process
  - Shared Learning
  - Resilience Planning
  - Supported by: vulnerability analysis, sector studies, pilots
- Outputs: City level resilience strategies as a framework for implementation actions
- Current status: Diverse implementation actions being initiated. A foundation for practice, improved methods, research and knowledge



# Climate Resilience Depends on:

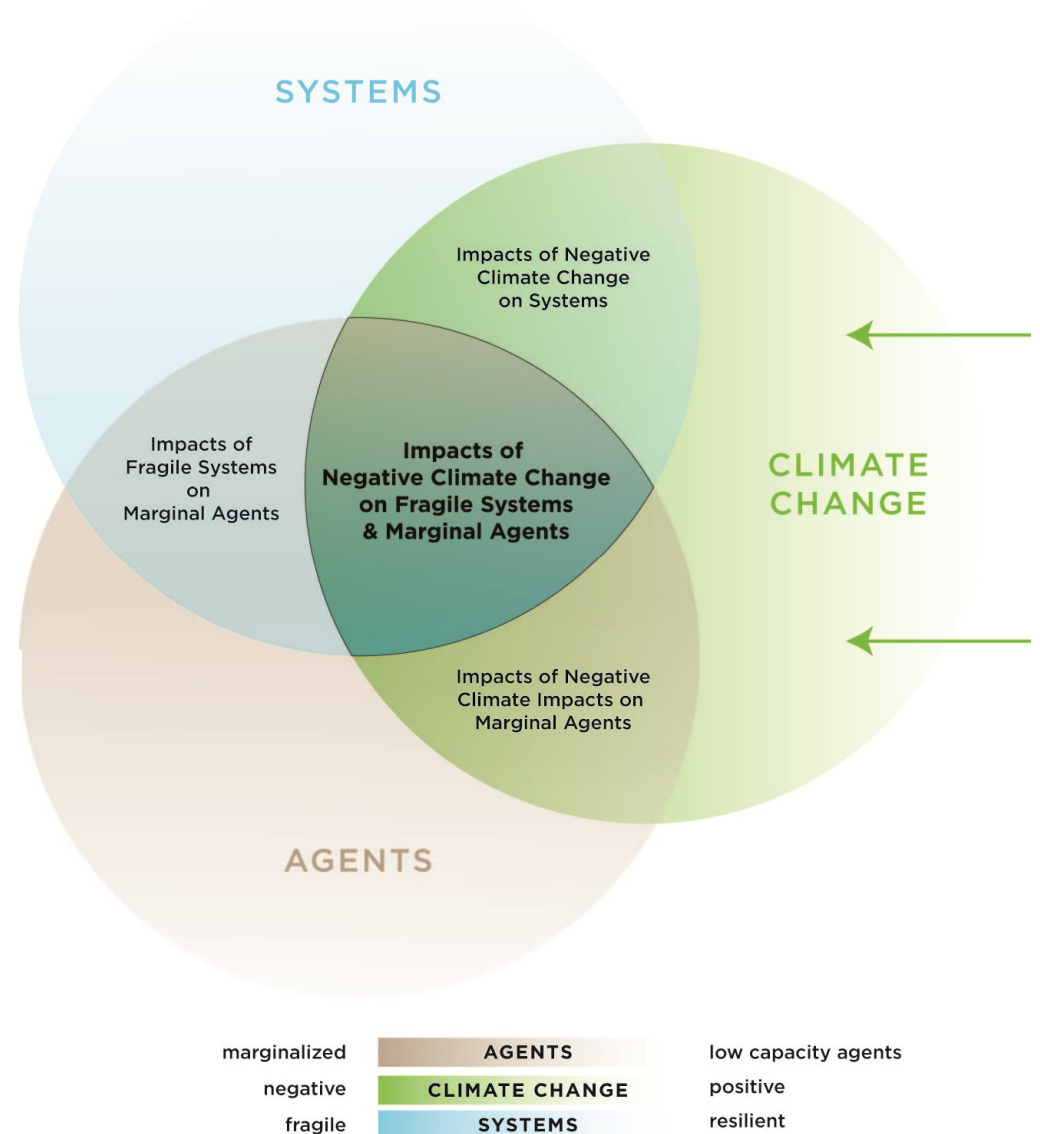
- **Exposure:** How agents and systems are exposed to impacts from climate change.
- **Agents:** The ability of agents (individuals, households, communities, businesses, government organizations, NGOs, etc...) to shift strategies as conditions change.
- **Systems:** The foundations that enable agents to access resources and shift strategies as conditions change.
- **Institutions:** Institutions that enable strategy shifting are central to adaptation and resilience. Those that constrain undermine.



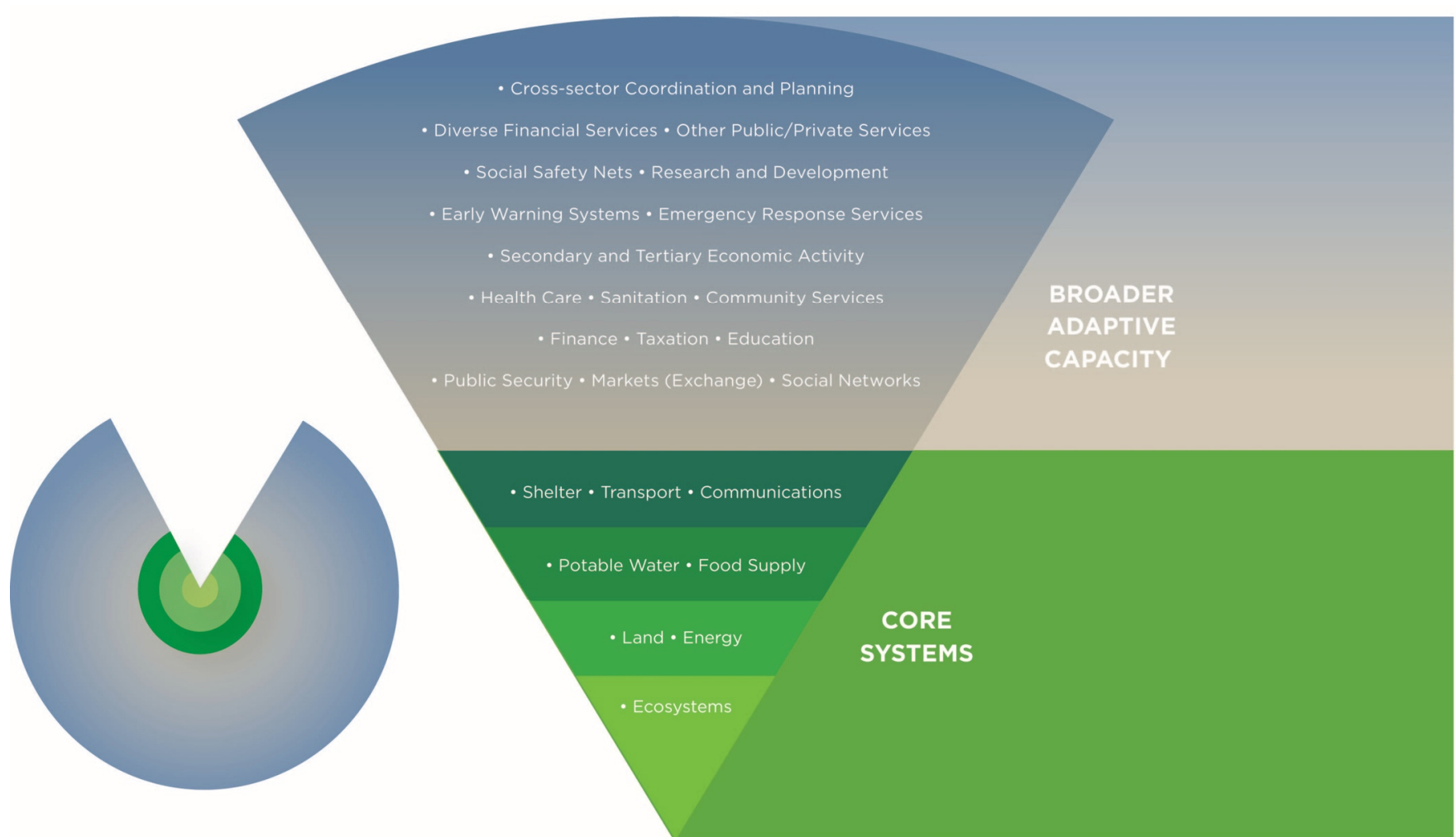
# Urban Climate Vulnerability

Climate Vulnerability is a function of:

- Fragile Systems
- Marginalized & low capacity agents
- Constraining institutions
- Exposure



# Systems as the foundations of resilience & gateways to Adaptive Capacity



# System Fragility

## Institutional Inflexibility:

Institutions that constrain rather than enable – *bureaucratized, low resources, low human capacity, little ability to learn, change or recover, poor governance*

## Key Attributes

- Flexibility & Diversity
- Redundancy & Modularity
- Safe Failure

## Brittle Infrastructure:

Infrastructure systems that are subject to cascades and catastrophic failure – *threshold dependent, low redundancy, low maintenance, high exposure of critical components*



# Agent Capacity

## Plan Proactively:

The capacity to identify impacts develop targeted responses – *a characteristic of hierarchies enabled by knowledge, resources & effective governance*

## Key Attributes

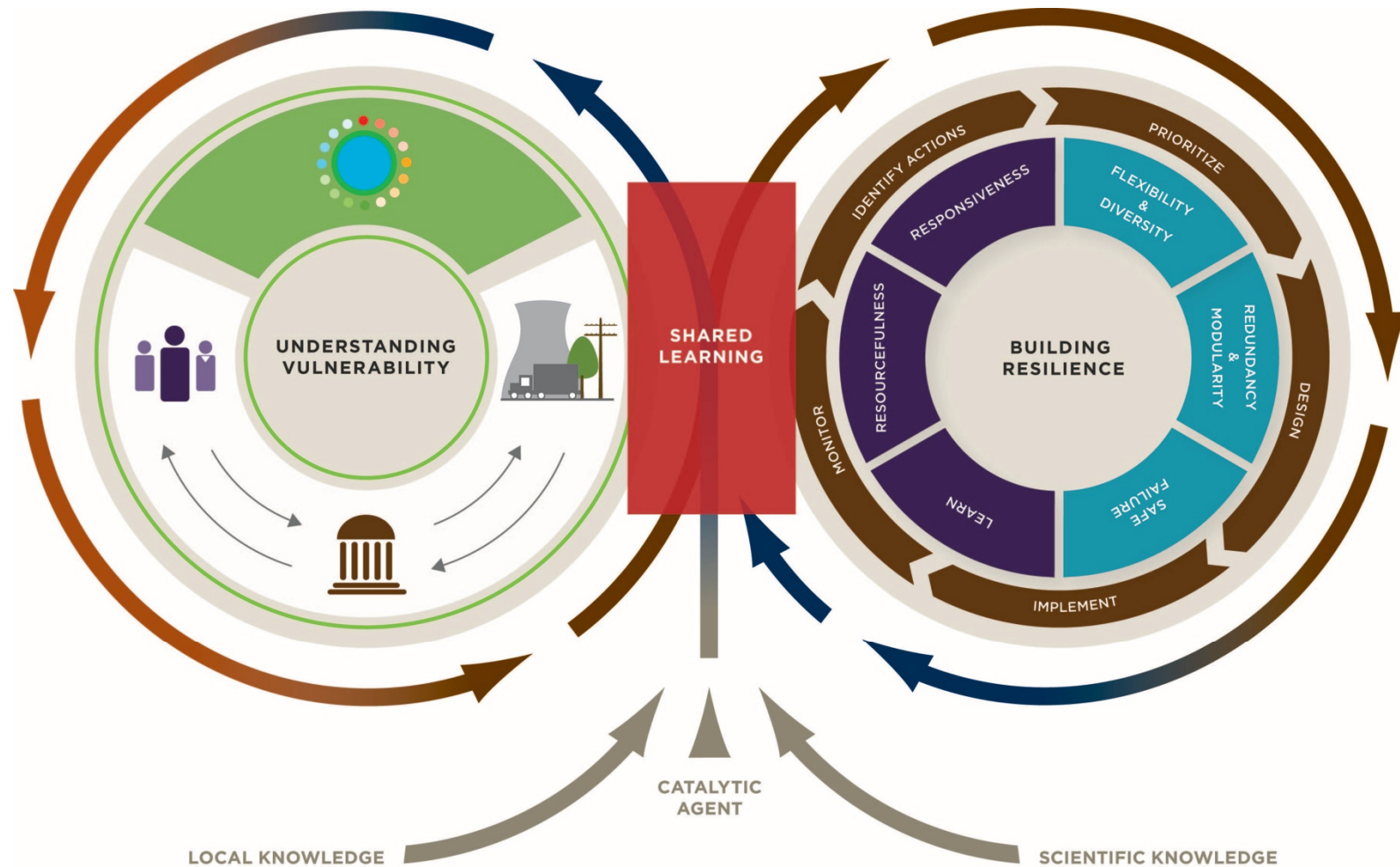
- Ability to learn
- Ability to visualize
- Ability to organize

**Autonomous Response:**  
Mobility, flexibility, the ability to organize and reorganize – *a characteristic of individualists, markets and identity groups enabled by institutions & systems*





# The Diagnostic and Operational Framework



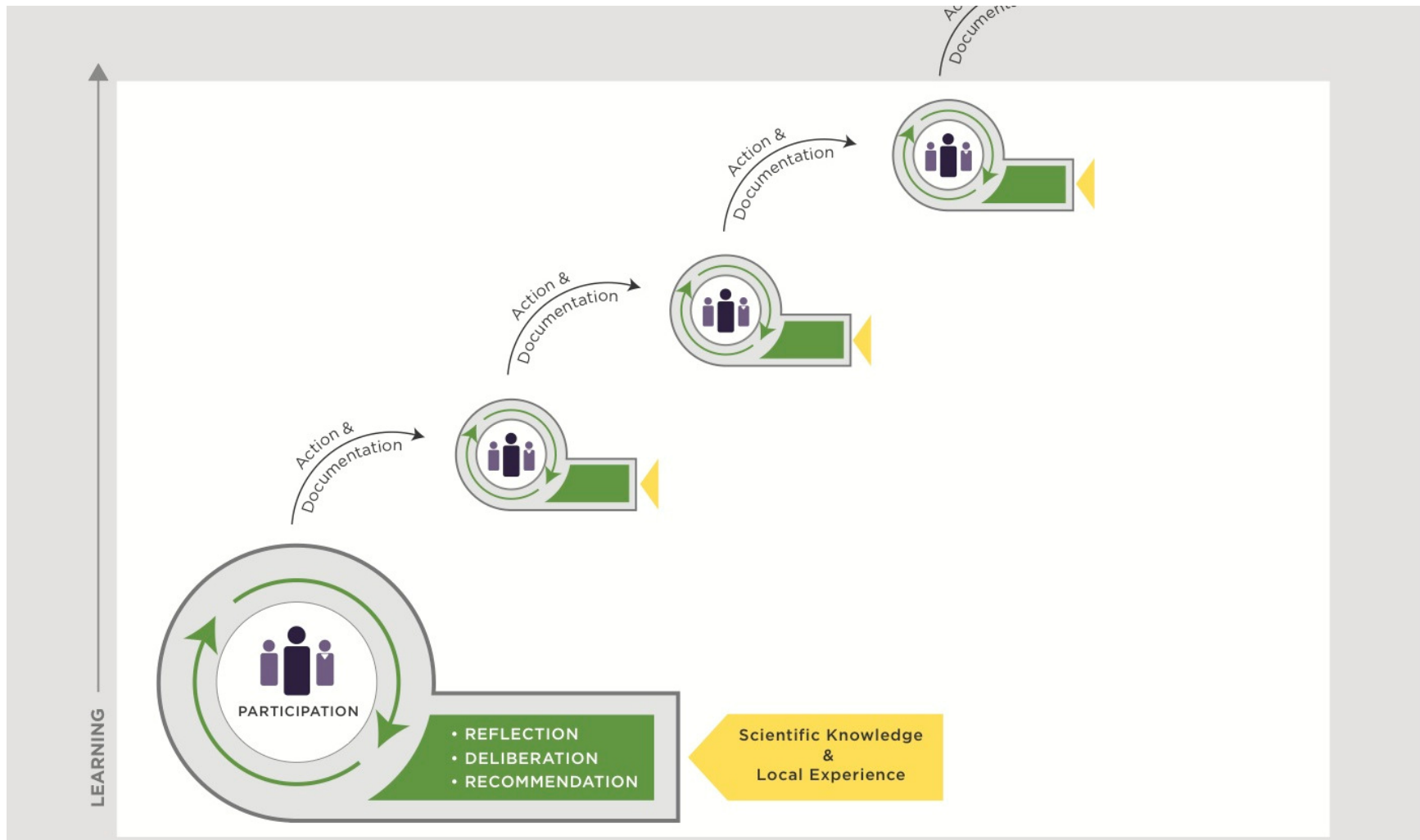


# Complex Realities: Require an Adaptive process





# Shared Learning



# Outcomes

- **Urban resilience strategies:** adaptive frameworks for positioning cities, guiding action and capacity
- **A growing mosaic of projects:** City climate offices, flood management, water supply, disease monitoring, community engagement, knowledge generation
- **An expanding body of practice & evidence:** Working with cities, urban communities, the informal sector
- **Practical (refined) methodologies:** climate information use, vulnerability analysis, urban resilience planning, climate-focused cost-benefit analysis
- **Growing conceptual coherence:** the urban climate resilience planning framework