

# Pro-poor climate change adaptation in the urban centers of low and middle-income countries

**Caroline Moser**

*Global Urban Research Centre, University of Manchester*

**David Satterthwaite**

*International Institute for Environment and Development*

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# Objectives

- ❑ Examine the *social dimensions* of **urban** climate change
- ❑ Introduce a pro-poor asset adaptation framework
  - ❑ A conceptual approach to identify *asset vulnerability* of poor individuals, households and communities
  - ❑ An operational tool to highlight *asset adaptation* interventions that build resilience by strengthening / protecting and rebuilding the poor's asset base
- ❑ Implications for urban institutions
  - ❑ National government, local governments and donors

# The Urban Context

- ❑ **The types of direct climate-change risks in urban areas**
  - ❑ Facing impacts from **heavy rainstorms, cyclones or hurricanes**
  - ❑ Coastal location and so impacted by **sea-level rise**
  - ❑ Location by a **river that may flood** more frequently
  - ❑ Location dependent on **freshwater sources**; supply diminish; quality compromised
  
- ❑ **Lack of focus on adaptation needed for urban climate change**
  - ❑ **IPCC's focus:** persuading governments to accept scientific evidence for human-induced climate change and pressing need for mitigation
  - ❑ **Greater scientific knowledge:** on agriculture, forestry, and eco-systems impacts than on build environment
  - ❑ **Adaptation Programs:** in Environment Ministries– not Local Govt; Public Works
  - ❑ **Mitigation:** is a national agenda – adaptation is intensely local
  - ❑ **Long-standing apathy about urban areas:** among most IFIs and donors

# The urgency of the situation

## 1. The scale of the population at risk in urban areas

- ❑ ¾ live in urban areas in middle and low-income countries at greatest risk from storms, flooding, landslides, heat waves that CC brings
- ❑ Most of total population growth between 2005-2023 occurring in such cities
- ❑ Within cities concentration of high risk groups facing climate change

## 2. The economic costs without adaptation

- ❑ Successful national economies dependent on resilient and well-functioning cities

## 3. The developmental opportunities of pro-poor adaptation agendas

- ❑ Synergies between successful CC and successful local development; measures to reduce CC risk such as urban infrastructure also reduce poverty

## 4. The vulnerability of poor populations to climate change

- ❑ CC not only exacerbates existing risks but reveals new hidden vulnerability as more locations exposed to new hazards

# Rationale for social development focus on CC

- ❑ **Focus on ‘autonomous adaptive capacity’:**
  - ❑ That protect and adapt the assets and capabilities of poor individuals & households
  - ❑ Importance of community-level social organizations to make demands on local government and/or work in partnership with them
  
- ❑ **Critical importance of social development perspective**
  - ❑ Limitations of urban government’s adaptive capacity
  - ❑ Unwillingness to work with poor
  
- ❑ **Provisos**
  - ❑ Urban adaptation not alternative to mitigation; SD agenda complements rather than completes with scientist's greenhouse gas emission reduction agenda
  - ❑ Follows IPCC’s lead & cautious about ascribing CC as causal factor in conflict

# Asset adaptation framework

- ❑ **Modification of asset vulnerability and asset accumulation frameworks** (*Moser 1998; 2007*)
- ❑ **What is an asset?**
  - ❑ A stock of financial, human, natural or social capital resources
  - ❑ Assets are not simply resources that people use to build livelihoods: they give them the capabilities to acquire, develop improve assets
- ❑ **Asset vulnerability**
  - ❑ Insecurity in multi-dimensional well-being in face of changing environment and responsiveness/ resilience to risks faced
  - ❑ CC brings in future dimension: uncertainty of future risks
- ❑ **Asset accumulation**
  - ❑ Operational approach for designing and implementing sustainable accumulation strategies linked to opportunities and risk management

# Climate change and asset vulnerability

## 1. Long term protection:

- ❑ **Groups living and working in locations most at risk and who lack protective infrastructure**
  - ❑ Most cities originally built on ‘safe sites’
  - ❑ Expansion onto hazardous sites – landslides, ravines, flood prone
  - ❑ Poor communities at risk often relates to lack of protective physical capital

## 2. Pre-disaster limitations:

- ❑ **Groups with less capacity to take action and avoid impact**
  - ❑ Groups in less resilient buildings and on more dangerous sites
  - ❑ Short-term ad-hoc individual responses with little organized community response
  - ❑ Knowledge; skills and capacity to act socially differentiated by:
    - ❑ *Age*
    - ❑ *Gender*
    - ❑ *Health status*
  - ❑ Mortality of women 3-4 times higher than men in tsunami – because unable to swim / trying to save children

# Climate change and asset vulnerability

## 3. Immediate post-disaster response:

### ❑ Groups less able to cope with impacts

- ❑ Differential impacts on the poorest and most excluded
  - ❑ *Young/old* – higher risk of heat wave
  - ❑ *Girls / women* – risk of personal safety
  - ❑ *Children* – trauma

## 4. Rebuilding:

### ❑ Poorer groups less able to adapt

- ❑ Post-disaster reconstruction opportunities for gain and inequitable resource allocations – with resulting conflicts
- ❑ *Particular gender inequalities*
  - ❑ Women's domestic responsibilities struggling in fast closing post-disaster 'window of opportunity' for land, employment etc
  - ❑ Failure to recognize individual / collective capabilities for community reconstruction
- ❑ *Children:* Greater physical and psychological damage

# Current government operational frameworks for action

- ❑ **Local government as the institution driving adaptation**
  - ❑ Adaptation framework would appear to have limited role for households and community social organizations
  - ❑ In high income countries local communities not responsible for adaptation
  
- ❑ **Quality of national and local govt. determines level of infrastructure disaster preparedness**
  - ❑ Mainstream adaptation in work of all dept. with often minor adjustments
  - ❑ But little evidence of adaptation at city level in middle and low-income countries
  - ❑ Good governance critical: links to democracy and partnership with NGOs
  
- ❑ **Community responses to climate change therefore essential**
  - ❑ **Asset adaptation framework**
    - ❑ Combines local responses
    - ❑ Capacity to contest, negotiate or collaborate with government & NGOs

# Asset adaptation framework

- ❑ **Systematic operational approach to social adaptation to urban climate change**
  - ❑ 4 closely interrelated phases of intervention
  - ❑ Identification of asset-based actions at household and community, municipal and national government level
  - ❑ Recognition that poor urban already have wide range of adaptive measures
- ❑ **1. Asset adaptation and long-term protection**
- ❑ **Most important stage and most difficult to implement**
- ❑ **Household / neighborhood level asset-based actions**
  - ❑ **Physical capital:** relocate housing from high risk area: *political interests / conflicts*
    - ❑ But potential loss of financial and social capital - unwillingness to move
  - ❑ **Physical and productive capital:** improve housing and protect assets
  - ❑ **Financial capital:** insurance for housing and productive assets
  - ❑ **Social capital:** community-based disaster preparedness: *not very common. E.g. El Salvador individualistic nature of investments; lack of representative community organizations*

# 1. Asset adaptation and long-term protection

## ❑ Municipal level asset-based actions

- ❑ **Physical capital:** provide / upgrade protective infrastructure
  - ❑ *Non CC relocation examples from Mumbai, Bangkok*
- ❑ **Natural capital:** hazard land-use mapping so slums do not end up on most risky sites; flood plains retained
- ❑ **Social capital:** wherever possible support and partners with community actions to improve housing and neighborhood areas
  - ❑ *E.g. federations negotiating land-rights in South Africa, Kenya, India, Windhoek*
- ❑ **Social and human capital:** vulnerability impact assessments
  - ❑ At present can only predict as regional level
- ❑ **Financial capital:** financial services such as micro-insurance, micro credit

## ❑ Regional / national level asset-based actions

- ❑ Risk reduction investments beyond city boundaries

## 2. Asset adaptation for pre-disaster damage limitation

### ❑ Household / neighborhood level asset-based actions

- ❑ **Social capital:** community coordination so dissemination of early warning and knowledge of how to respond
- ❑ **Human capital:** households move from dangerous sites
  - ❑ Erosion of financial and social capital
- ❑ **Physical capital:** prepare housing to withstand event
- ❑ **Productive capital:** protect or move productive assets

### ❑ Municipal level asset-based actions

- ❑ **Physical capital:** prepare safe spaces for temporary move
- ❑ **Human / physical capital:** organize safe corridors provide / upgrade protective infrastructure
- ❑ **Human capital:** provide accurate and credible information to local communities

### ❑ Regional / national level asset-based actions

- ❑ **All capital assets:** disaster early warning system
- ❑ **Natural capital:** flood management upstream

### 3. Asset adaptation for immediate post-disaster response

- ❑ **Household/neighborhood level asset-based actions**
  - ❑ **Physical capital:** reduce risks in affected areas; restore infrastructure
  - ❑ **Human and financial capital:** implement cash-based social protection measures
  - ❑ **Physical and productive capital:** support households restore livelihoods with gender disaggregated analysis
  - ❑ **Social capital:** encourage immediate collective community-based responses
  
- ❑ **Municipal level asset-based actions**
  - ❑ **Physical capital:** rapid repairs to key social and physical infrastructure including healthcare, water etc
  - ❑ **Human capital:** protection to displaced populations especially elderly, children
  - ❑ **Physical / productive capital:** protection to prevent looting and further asset erosion
  - ❑ **Social capital:** support for community-based rebuilding initiatives
  
- ❑ **National level asset-based actions**
  - ❑ Provision of financial and personnel support to implement the above

## 4. Asset adaptation for rebuilding

- ❑ **Household/neighborhood level asset-based actions**
  - ❑ **Physical capital:** displaced households seek land titles and rebuild housing
  - ❑ **Social capital:** community-based rebuilding of physical infrastructure along with trust and cohesion
  - ❑ **Productive capital:** rebuild income generating activities
- ❑ **Municipal level asset-based actions**
  - ❑ **Physical capital:** building / rebuilding infrastructure to more resilient standard
  - ❑ **Financial / human capital:** rebuilding safety system to ensure assets; personal safety
  - ❑ **Productive capital:** support to rebuilding income generating activities
  - ❑ **Human capital:** addressing long-term trauma care needs of children and others
  - ❑ **Physical / productive capital:** protection to prevent looting; further asset erosion
  - ❑ **Social capital:** support for community-based rebuilding initiatives
- ❑ **Regional / national level asset-based actions**
  - ❑ **Productive capital:** rebuilding at regional level
  - ❑ **Natural and physical capital:** rebuilding water systems etc

# Institutional implications: Key findings

## ❑ Why are the social dimension necessary

### ❑ Limitations of local governments:

- ❑ Lack knowledge and capacity to act
- ❑ Will not work in informal settlements

### ❑ Household and community action

- ❑ Brings immediate benefit
- ❑ Helps build competence and accountability within local government
- ❑ But critical interventions that go beyond scope / capabilities of households
- ❑ **NOT panacea but partners**

## ❑ Implications for urban government

- ❑ **Competent better resourced governments:** willing and able to work with poor communities
- ❑ **Key institutional change:** Give more power to local government
- ❑ **Democratic reform:** elected mayors assist process
- ❑ **Capable committed individuals:** politicians and civil servants

# Institutional implications: Key findings

## ❑ Implications for national government

- ❑ **higher government levels need to provide legislature, financial and institutional basis:** for cities to be good ‘climate change adaptors’
- ❑ **Not pushing adaptation responsibilities:** that cannot be fulfilled
- ❑ **Local plans:** to include all key stakeholders

## ❑ Implications for donors

- ❑ **Reexamination of funding flows:** to see that sufficient allocated to urban infrastructure than enhances climate resilience
- ❑ **Support for state/provincial financial and regulatory capacity:** to assist adaptive capacity for urban areas
- ❑ **Direct support to local adaptive capacity:** for municipalities to work with local communities

## ❑ **Conclusion:** Climate change provides rationale for stronger linkages between social development and the urban sector

- ❑ Physical infrastructure, housing, water, land and urban management