



Climate Change and Urban Poverty in Bangladesh:

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**Living in low-income settlements in an era of climate change:
adaptations in livelihoods and the built environment**

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Resilient Cities, Panel Session D1**

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Overview

1. Urban poverty in Bangladesh
2. Climate change impacts and urban poverty in Bangladesh
3. Housing and living environments: impacts and adaptations
4. Incomes and livelihoods: impacts and adaptations
5. The urban poor in Bangladesh: Coping or Adapting?
6. Household coping strategies
7. Concluding Remarks

1. Urban poverty in Bangladesh

- Urban poverty is a distinctive and unrelenting feature of urban life in Bangladesh
 - 35 percent of the urban population live in slums (in 2005).
 - Human development is stagnating or actively deteriorating in urban areas.
- **At household level:**
 - Low, irregular and insecure incomes (financial capital)
 - Unsanitary and environmentally hazardous environments (natural capital)
 - Sub-standard and poorly-serviced housing with insecure tenure, often as rental tenants (physical capital)
 - Limited skills and education, and facing chronic illness, malnutrition and routine health shocks (human capital)
 - Limited social networks for support and assistance (social capital)

2. Climate Change and Urban Poverty in Bangladesh

- Impacts of climate change have a double-whammy impact on urban poverty:
 - Flooding, cyclones, river erosion, land salination, and sea level rises destroy rural livelihoods and lead to poverty and destitution
 - Increases the *scale* of urban poverty
 - Flooding, landslides and heat stress lead to health problems, income shocks, lost or destroyed assets and reduce the ability of the urban poor to secure their livelihoods.
 - Exacerbates the *severity* of urban poverty
- **The impacts of climate change are neither the only, nor the primary, challenges facing the urban poor – but they will compound the risks and challenges they already face.**
- Increased heat and rainfall are the two greatest risks to livelihoods for the urban poor.



3. Housing and Living Environments: Climate change impacts and adaptations



3. Impacts of climate change on urban poverty: Housing and Living Environments

- **Severe floods have hit Dhaka three times in the past 20 years:**
- The urban poor are most affected by flooding:
 - Households disconnected from places of work, markets, health services
 - Poorly constructed housing submerged and often destroyed
 - Households try to cope with rising floodwaters by raising furniture and storage
 - Meagre belongings lost or destroyed
 - No work, no money to buy food, existing food quickly rotting
 - Huge health implications
 - Toilet facilities submerged and destroyed
 - No safe drinking water
 - Danger of electrocution and snake bites

3. Household adaptations to the built environment

- Many households make physical adaptations that aim to reduce risk and losses in the face of heavy rainfall and high temperatures.
 - Upgraded building materials
 - Concrete floors and barriers at room entrances
 - Raise furniture and food storage
 - Ventilation
 - Green infrastructure
- Heterogeneity in experiences: the poorest households are worst off
 - High rates of tenancy
 - Search for lowest rents means living in lowest-quality housing and most risk-prone areas.
 - In slums on private land, powerful landlords living outside the slum have little incentive to make any investments in improved services, infrastructure, or household improvements.

3. Community adaptations to the built environment

- Community efforts to improve infrastructure and reduce risk:
 - Market committees organise sporadic clearing of drains or waste clearance, covering the costs from small payments from residents or market owners.
- Several NGOs work with low-income communities to build covered drains, concrete footpaths and improve access to services.
- Have to be aware of the implications of these upgrading programmes in relation to the social dynamics of low-income urban communities.
 - Mobilise CBOs for implementing programmes from landlords, reinforcing their power and status.
 - Two-fold financial returns to landlords, both in terms of increased rents and cost savings from formal services.
- But even these offer little protection against extreme weather events such as flooding when the entire community is submerged.
 - Beyond the community, risk-reducing infrastructure can only be implemented at the city level to reduce water-logging and vastly improve drainage capacities.

4. Incomes and livelihood adaptations

- Income is absolutely critical to survival
- Barriers to entry to more profitable and secure employment options for the urban poor are high and characterised by low wages and:
 - Unskilled labour (Rickshaw-pulling, construction, day labour)
 - Small businesses (low profits and high risk)
 - Garments factories
- Heat stress and increased rainfall create further insecurities in securing income from these precarious livelihoods.



4. Income and livelihoods: Impacts and adaptations

- Increased rainfall and heat stress have severe implications on working lives:
- **Unskilled labour:**
 - Physical labour under extremely high temperatures or excessive rainfall has severe health implications.
 - Severely reduced incomes throughout rainy season, at the same time as pressures on income are highest (medical costs)

"For the rain, if I go to work one day, then for 3 days I am suffering from fever. But I have to work at least two days a week to meet household costs".

"We rely on taking goods on credit in rainy season or by borrowing money, usually on interest. After that, when good times come, we have to earn double our usual incomes so we can repay debts and loans".

- **Small businesses:**
 - Those serving predominantly low-income clientele struggle simultaneously to deal with lower incomes as a result of fluctuations in demand and increased reliance on credit.

5. The urban poor and climate change in Bangladesh: Coping or Adapting?

- ‘Coping’ as a means of dealing with immediate insecurity
 - Coping strategies focus on survival *today* – they do not necessarily improve future opportunities and may make things worse (moneylender loans; exploitative patron-client relationships)
- ‘Adapting’ as taking preventive measures to reduce vulnerability and enhance resilience in the medium- to long-term.
 - But *who* adapts, and how?
- On the 1998 floods:

“The narratives clearly illustrate their despair and utter helplessness over their present situation – with no home to return to, their cooking utensils destroyed and no money to buy food, their lives were completely crushed by the floods”

(Rashid 2000: 245)

6. Household Coping Strategies

- The reality is, urban poor households have very few weapons in their arsenal for coping, let alone adapting to the threat of climate change.
 - Labour mobilisation
 - Asset ownership, improvements to the built environment
 - Savings
 - Loans
 - Social support networks
- All of these strategies offer some potential to contribute to adaptive strategies, but the reality is that households use these to cope, rather than to advance their interests.
 - Ongoing insecurity reduces the ability of households to build and consolidate their assets, making any household improvements incremental and vulnerable to reversal.
- *"If we can save a little one month, it is quickly destroyed the next when we have illness costs. So when it comes to rainy season, we have no financial back-up".*

Wage estimates from
2010:

Unskilled labourer:
100-150 taka/day

Rickshaw-puller:
200-400 taka/day

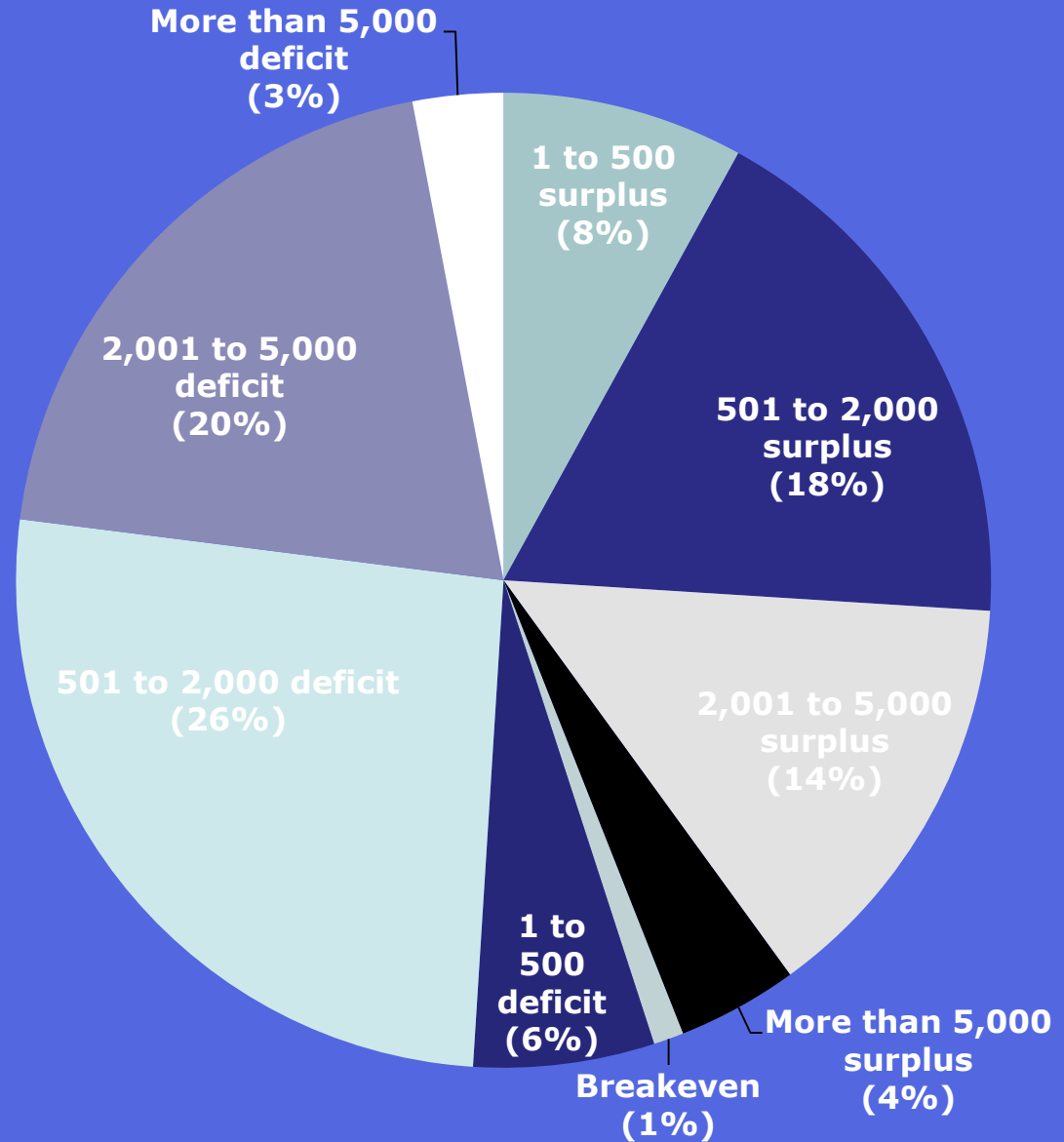
Garments: 1,600 –
4,000/month

Three quarters of all
households have
ongoing monthly
health costs of 863
taka.

Only 1 in 3 hhs have
sufficient surplus

Source (Banks 2012)

\$1=82 taka



The urban poor are poorly prepared for additional income pressures

7. Concluding Remarks

- Urban poor suffer from climate change impacts disproportionately, but have little means to implement adaptation strategies that give them greater medium- and long-term security.
- Households instead struggle to *cope* amidst the insecurity of their livelihoods as a result of:
 - High costs of urban living combined with low and irregular incomes
 - Unsanitary living environments and sub-standard housing
 - Regular health shocks
 - Seasonal disruptions to livelihoods
- Increased heat and rainfall are the most immediate risk to the urban poor as a result of climate change.
 - These do not happen in isolation of the other challenges facing the urban poor.
 - Exacerbates the scale and severity of these multiple dimensions of urban poverty

7. Concluding Remarks

- Building the adaptive capacity of low-income settlements will require building upon the strategies already in place, and connecting these grassroots adaptation practices with formal institutional structures at the city and national level.
 - Need to be aware of vulnerable communities where there are *no* adaptive practices taking place (i.e. slums on private land)
- But we also need to recognise adverse impacts on unintended consequences of adaptations that improve living environments:
 - Increased rents benefit the minority at the expense of the majority
 - Increased rents may displace the poorest households from social support networks and proximity to employment as they follow cheaper rents to more vulnerable locations.