Study Sharing Consultation

Policy Scopes and Gaps: Climate Resilient Urban Development in Bangladesh

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Dhaka Reporters Unity (DRU)

Organized by:

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Introduction

- The future of humanity is **undoubtedly urban**
- The future of cities isn't uniform across regions
- **Around 39%** of the population of Bangladesh lived in urban areas in 2021 (World Bank, 2022)
- About 516 urban centers throughout the country **without quality-complaint reserved water bodies compliant and proper drainage system**
- Only 28% of the urban households live in **permanent structures**
- About 55% of the **urban population lived in slums** in Bangladesh in 2018

Objectives

- To identify the status quo of **climate-resilient urban development** in Bangladesh
- The identification process will be looked at through **three thematic lenses**:
  1. Mitigation
  2. Adaptation
  3. Inclusiveness

Methodology

1. Ground Study

2. Desk Research

(a) IPCC 6th Assessment Report

- Working Group 2 Report (Climate Change 2022: Impacts, Adaptation and Vulnerability)
- Working Group 3 Report (Climate Change 2022: Mitigation of Climate Change)

(b) **Twelve government policies and programs** have been reviewed (focus on Urban Infrastructure, Housing and Shelter for Urban poor, Urban Mobility, Urban Health, Renewable Energy/Mitigation, DRR plans and Pollution)

Slum Dwellers: on the ground evidence

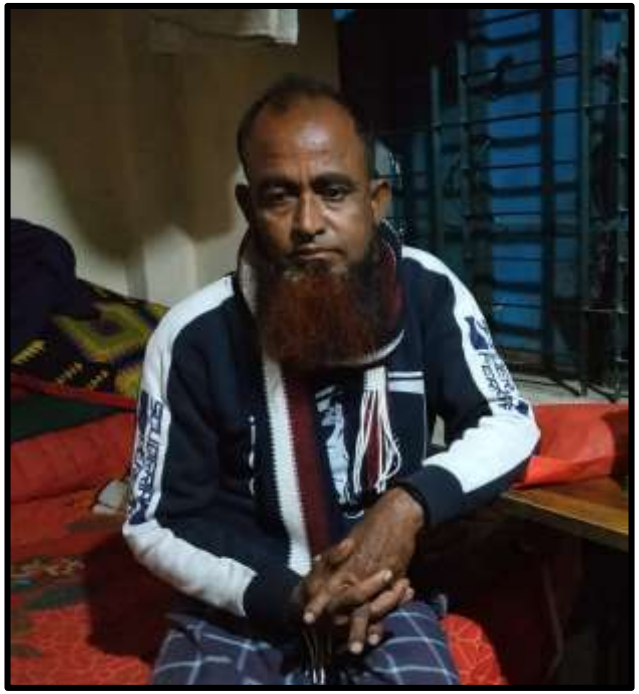
Shilpi Khatun
Age: 45;
Education: Can sign only;
Location: Mirpur Ceramic, Mirpur 12, Mirpur, Dhaka

Shilpi Khatun works as a house servant in Mirpur.
About 15 years ago, a tube-well was established at this slum by an NGO.
But now it is dysfunctional due to a lowering of the groundwater table
Once upon a time, two people established two submersible pumps. Since then they have been selling water in this slum.
She pay a big amount of money for water consumption, around 300 to 700 takas per month
People are helpless because there is no municipal water connection and no other source of pure water.
Having no legal papers for accommodation, slum dwellers are also deprived of the government's utility facilities

Slum Dwellers: on the ground evidence

Altaf Hawlader

Age: 55;
Education: Can sign only;
Location: Bangababdu Colony, Ward no. 11, Barishal City Corporation, Barishal



Altaf Hawladar, was a farmer, left his ancestral home for Barishal 22 years ago due to saline intrusion turned his land unsuitable for agricultural activities.

- He along with his family have already migrated three times (Barishal City Corporation, Mirpur 1, and at last Bangabandhu Colony), in search of better income source and cheap leaving place.
- His family has been facing water crisis ever since it came to this Colony.
- They drink water supplied by BCC and take bath in the river.
- Drinking this contaminated water, his family members often suffer stomach ache and diarrhea.
- Difficulty using a latrine shared by five families

IPCC Sixth Assessment Report

Global Observed Impact

- Climate change induced hazard risk has increased[1], where urbanization process acts as a **triggering factor**
- **529 million people in Asia** and 60% urban population in sub-Saharan Africa live in **informal settlements**[2], also climate change has had disproportionate impacts on the **health, livelihoods, and well-being** of the urban communities[3]

Impact on Bangladesh

- In coastal Bangladesh, almost **26 million** people drink shallow groundwater with **extremely high salinity**.
- In 2019, Bangladesh recorded more than **4 million disaster displacements**
- On May 20, 2020, **super cyclone Amphan** hit the coasts of Bangladesh
- Paddy prices increased by approximately **30%** year-over-year in 2017 after the **floods of 2017**
- Loss of **fisheries productivity** has been caused by salinity intrusions
- Peoples of Khulna and Shatkhira, have been hit hard **mentally and financially** by the losses and damages caused by **tropical cyclones**

[1]Working Group-II of IPCC, Chapter 6, page 909; [2]Working Group-II of IPCC, Technical Summary, page 53; [3]Technical Summary, page 54; Chapter 6, page 909; Summary for Policymakers, Page 11

System Transformation to Limit Global Warming (Mitigation)

For cities, three broad mitigation strategies are effective when implemented concurrently (very high confidence) (Summary for Policymakers, page 34)

1. **Reducing or changing energy and material** use towards more sustainable production and consumption
2. Electrification along with **switching to low-emission energy sources**
3. **Enhancing carbon uptake and storage** in the urban environment,

Projected Global Impact

- Climate change increases risks for a larger number of growing cities and settlements across wider areas, especially in coastal and mountain regions, affecting an additional **2.5 billion people** living in cities by 2050. Many risks will be felt unevenly across cities and settlements or within cities.
- Informal settlement residents will be **more exposed and less adaptable**. **Women and children**, who make up the majority of these settlements, are most at risk[1].
- Projected changes in both the hydrological cycle and the cryosphere are going to **threaten urban water infrastructure and resource management** in most regions.
- Overall, 350 million (± 158.8 million) more people in urban areas are projected to experience **water scarcity** from severe droughts at 1.5°C warming and 410.7 million (± 213.5) at 2°C warming.
- In coastal cities and settlements, risks to people and infrastructure are projected to become **progressively worse** in a changing climate, sea level rise, and ongoing coastal development.

[1]Working Group-II of IPCC, Technical Summary, page 65

Projected Impact on Bangladesh

- Significant **shortage of drinking water** in the coastal urban area due to climate change-induced river salinity (Dasgupta et al., 2014).
- Dasgupta et al. (2017) found that **aquatic salinization and alteration** in fish species due to sea level rise may hurt poor households in southwest coastal Bangladesh.
- **Dengue incidence** will increase if the ambient temperature rises further in Dhaka City; it is projected to increase to a yearly rate of 16,000 cases by 2100 for a 3.3-degree increase without any adaptation measures (Banu et al., 2014).

Urban Climate Policy Landscape of Bangladesh

Table 1: Bangladesh's policies and programs review*

No.	Policy	Urban Infrastructure	Housing and Shelter for Urban poor	Urban Mobility	Urban Health	Renewable Energy/Mitigation	DRR plans	Pollution
1	Bangladesh Climate Change Strategy and Action Plan 2009	✓			✓		✓	
2	Climate Change Trust Act, 2010						✓	
3	National Urban Health Strategy 2014	✓			✓			✓
4	National Strategy for Water Supply and Sanitation 2014	✓	✓		✓			
5	Energy Efficiency and Conservation Master Plan up to 2030					✓		
6	Bangladesh Housing Policy 2016	✓				✓		

Urban Climate Policy Landscape of Bangladesh (cont'd)

No.	Policy	Urban Infrastructure	Housing and Shelter for Urban Poor	Urban Mobility	Urban Health	Renewable Energy/Mitigation	DRR plans	Pollution
7	Bangladesh Delta Plan 2100	✓		✓				✓
8	Perspective Plan of Bangladesh 2021-2041	✓						✓
9	8th Five Year Plan (July 2020 – June 2025)	✓	✓	✓	✓		✓	✓
10	National Plan for Disaster Management (2021-2025)						✓	
11	Nationally Determined Contribution (NDC) 2021: Bangladesh	✓		✓		✓		
12	National Adaptation Plan of Bangladesh (2023-2050)	✓			✓	✓		

*MoEF, 2009; LGD, 2014; SREDA, 2016; NHA, 2016; GED, 2018; GED, 2020; MoDMR, 2020; MoEFCC, 2021

Policy Gaps

- Lack of **quantifiable action plan**
- Most of the plans have **no deadline**
- There are **implementation barriers in the urban slums** which makes the towards the utility services inaccessible
- **No dedicated policy** addressing the urban slum population which takes up the 55% of the whole urban population of Bangladesh
- The policies are **not timely updated**
- **Dedicated policy** for Urban Slum, Urban Waste Management, Transport Plan
- La**ck of cohesion** between the policies (targets varies from policy to policy, NDC & EECMP)
- **Inadequate monitoring**

Climate Change Impacts on Slum Dwellers

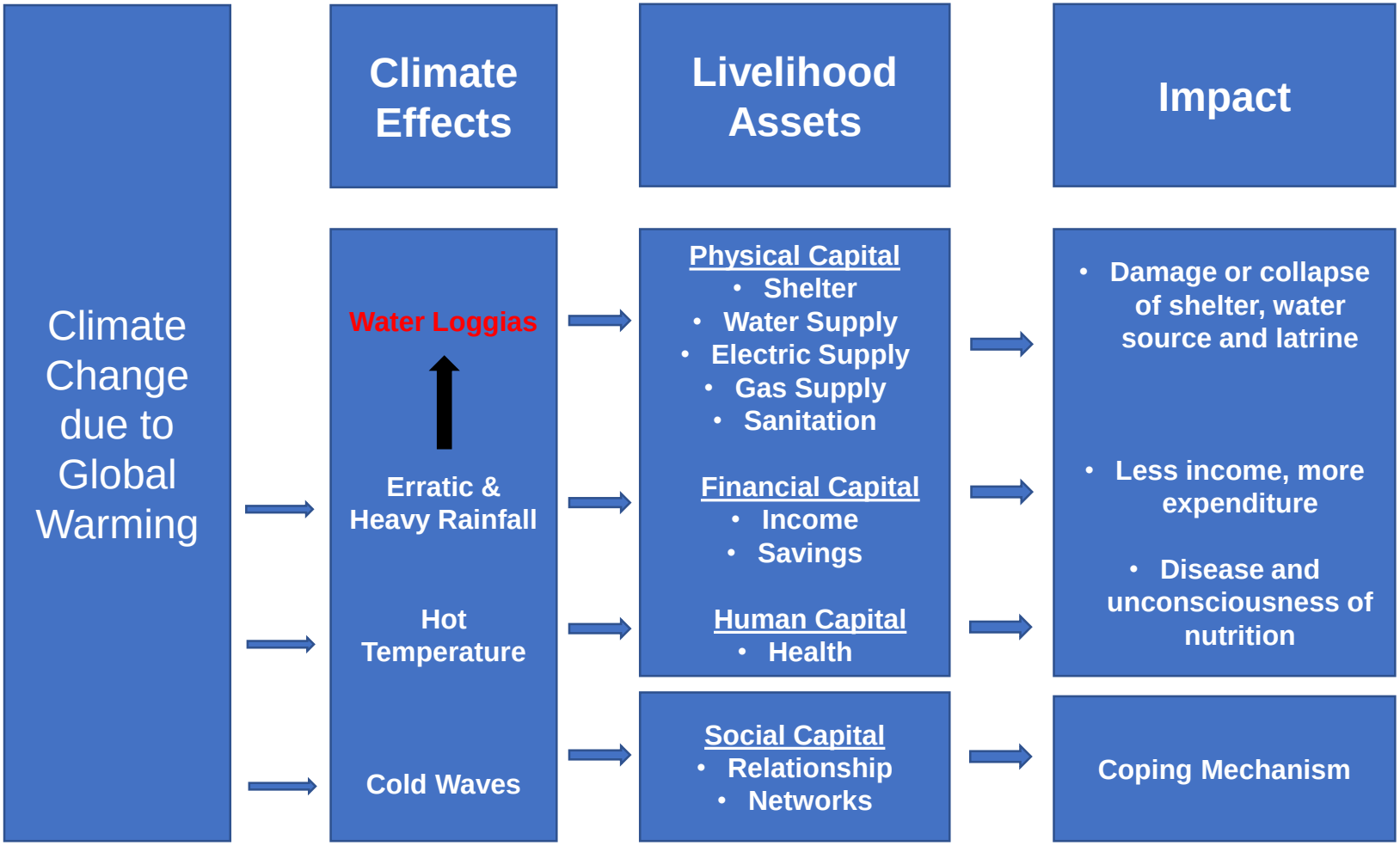


Figure: Analytical framework for climate change impact on livelihood of the urban poor (Amjad, 2019)

Possible Advocacy Issues for Civil Society

Mitigation

- Fully implementation of the **energy management program** outlined in the EE&CMP
- Enforcing the energy measures set in the **building code**
- Implementation of **energy efficiency labeling program** for home appliances
- Increasing **forest cover** in urban areas

Inclusiveness

- Ensuring primary health care for **urban poor** through **health cards and health centers** throughout the cities
- Campaign on **hygiene and sanitation practices** for urban poor
- **Subsidized water supply and sanitation facilities** for extreme urban poor
- **Upgradation of slums** by 2030

Adaptation

- Ensuring **safe water supply, food safety, housing, and environmental health** for urban areas
- **Protect flood flow zones** by restricting landfilling in water bodies
- Ensuring access for all to **safe and affordable housing** with adequate amenities
- **Adoption of building codes** for the entire country with **environmental protection, water quality, and air quality**
- Development of **community-based disaster preparedness and responses plan**
- Adoption of groundwater recharge technology **rainwater harvesting** measures in urban areas
- **River management** for erosion-prone areas
- Improving **urban drainage systems and re-excavation** of water channels
- Improving waste management in urban areas. **Waste-to-energy plants** can be a good option here

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