



Key messages

- Cities play a major role in local climate action and meeting national and international climate change commitments.
- Bangladesh has several national policies that support local resilience actions; however, they often do not reflect the on-the-ground realities, or address local government needs.
- Cities can use resilience-building tools to understand and assess local climate risks and vulnerabilities to take appropriate actions.
- Reporting to national government on baseline climate scenarios and local assessments of climate risks can help to align national policy with local needs.
- Regular monitoring of the impacts of climate actions and coordination of local and national government agencies can help to effectively integrate local climate needs into national policies.
- Proactive engagement of local governments with national ministries can ensure national budgets are allocated appropriately to address local needs.

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Urban resilience in Bangladesh: Integrating local and national planning processes

Bangladesh is often referred to as the “ground zero for climate change”¹. The topography and location of the country make it highly prone to extreme weather events, including cyclones, floods, salinity intrusion and storm surges. Socio-economic factors, such as a strong dependence on agriculture and other resource-dependent sectors, and a high population density and poverty rate, contribute further to the country’s vulnerability.

Bangladesh is ranked seventh on the 2020 Global Climate Risk Index of the countries most affected by climate change since 1995.² Bangladesh’s Nationally Determined Contribution highlights that the economic losses due to climate change over the past 40 years have lowered the gross domestic product annually by 0.5% to 1%.³ Climate impacts are expected to lead to a 3.1% annual decline in the country’s agricultural gross domestic product in the 2005-2050 period, totalling \$36 billion.⁴ The World Bank (2010) estimates the cost of adapting to cyclones, storm surges and inland flooding could amount to \$8.2 billion in Bangladesh, in addition to recurring annual costs of \$160 million.⁵ Approximately \$40 billion would be required from 2015 to 2030 for implementing key adaptation measures. Therefore, if Bangladesh seeks to become a middle-income country, it needs to focus on building climate resilience.

Rising sea levels could displace millions of people from coastal regions,

according to the 2009 Bangladesh Climate Change Strategy and Action Plan⁶, with adverse impacts on their livelihoods and health. The plan also highlights that two-thirds of the country is less than five metres above sea level and is susceptible to river and rainwater flooding as well as tidal flooding during storms in coastal areas. It is estimated that the super cyclone Sidr in 2007 caused about \$24.6 million in damage in urban and municipal areas.⁷

The growing urban population will face a variety of climate change impacts, including stress on resources due to migration from cyclone-impacted regions, as well as increased salinity due to storm surges, urban drainage issues, and vector borne diseases. The urban poor are some of the most vulnerable populations to these impacts.

A study in Bangladesh shows a 20% increase in mortality during heat waves.⁸ Particularly in cities, the heat island effect seriously impacts the

health of citizens, especially those who work outside. A Heat Early Warning System could give sufficient time to prepare and reduce mortality rates.

The Government of Bangladesh has responded to climate risks with a range of policies and programmes, that allocate budgets for reducing vulnerabilities and engaging the private sector. However, without decisive action by local governments, these measures cannot be effective.

This policy brief outlines why supporting local climate action in Bangladesh is critical to achieve national and international climate change and development commitments. It discusses existing national policies and tools that support local resilience, and recommends how national government can accelerate local climate action. Some of the observations in the brief are based on ICLEI's 10 years of experience working in Bangladeshi cities.

Why integrate local resilience at the national level?

Global development agendas like Agenda 2030, the Sustainable Development Goals (2015), the Paris Agreement (2015) and the Sendai Framework (2015) have highlighted the collective role of local governments and communities in addressing climate risks and building resilience through a bottom-up approach.

According to the United Nations Development Programme, local governments undertake more than 70% of climate change mitigation measures and 90% of adaptation measures.⁹ Therefore, it is essential to integrate their experiences and ensure that investments through national policies and programmes are well-informed and responsive to local needs. This will help enhance local governments' awareness of new national policies, and increase their ownership of and compliance with these policies.

However, integrating local needs

into national plans is not easy owing to limited finances needed for regular consultations, political interference which often determines national programmatic priorities, and institutional challenges of cross-jurisdictional consultations. Additional issues include the absence of integration and collaboration for climate action at vertical (across local, regional and national government) and horizontal (across actors in the same governance level) levels as well as the documentation and monitoring of local climate responses.

Existing national policies that support local urban resilience

Bangladesh has several national policies that support local resilience actions.

The 10-year Bangladesh Climate Change Strategy and Action Plan 2009 (BCCSAP) is one of country's key climate action policies. It has immediate, short, medium and long-term programmes for climate adaptation and low-carbon development, with 44 programmes under six major pillars. It recognises the impact of climate change on a rapidly-urbanising Bangladesh and proposes a number of actions to promote safe housing, employment and access to basic services, including health and improved infrastructure, considering the future patterns of urbanisation.¹⁰ This document is currently under revision.

The country's NDC aims to increase resilience to climate change and achieve lower greenhouse gas emissions in the power, industry and transport sectors, with action strategies up to 2030. Urban resilience figures prominently in the Roadmap and Action Plan for Implementing Bangladesh's NDC, particularly urban drainage and transport systems.¹¹

The Bangladesh Delta Plan 2100¹² is the latest long-term and integrated policy, consisting of 65 infrastructure and 15 institutional and knowledge development projects in six hotspots over the next decade – one of them

being urban areas. The primary challenges of urban areas as identified in the Delta Plan are drainage, solid waste management, water supply and governance.¹³

The country's National Adaptation Plan developed in 2018, focusses on long-term adaptation investment and enhancing national capacity. The NAP includes urban habitation and the built environment (including water supply, sanitation and hygiene) as some of its priority sectors.¹⁴ Additional sectoral policies relevant to climate change have also been developed in line with Bangladesh's Climate Change Strategy and Action Plan.

The Ministry of Environment, Forest and Climate Change supervises inter-ministerial coordination and the mainstreaming of climate change policies into projects from different national ministries. The Planning Commission approves these projects through five-year plans and annual development programmes.

Powers and functions of local governments

At the local level, development authorities are responsible for developing master plans and approving land-use modifications, and municipal corporations are responsible for implementing them. These authorities, such as the Rajdhani Unnayan Karttripakkha, Chattogram, Rajshahi, and Khulna Development Authorities, report through the Urban Development Directorate to the Ministry of Housing and Public Works. As development authorities and city corporations fall under different ministries and administrative jurisdictions, there is limited coordination among them, hampering the effective implementation of master plans.

In recent years, municipal corporations and municipalities have also started developing master plans with support from the Local Government Engineering Department. Several 20-year municipal master plans were developed in the 2008-2014 period,



Rainwater harvesting in Mongla to provide drinking water to the city. © ICLEI South Asia

which had sectoral and cross-cutting strategies to address disasters and climate change.

There are 12 city corporations in Bangladesh, while the majority of the urban areas are managed by municipalities with limited staff and funds. The draft National Urban Policy 2011, which was redrafted in 2014 and is yet to be approved by the government, includes sectoral policies for climate change. For local governments that do not have development strategies in place, these master plans are vital to provide a framework for climate resilient planning.

Local resilience planning tools

National and international agencies have developed several tools to help local governments develop localised resilience action plans. Some of these are:

- The City Resilience Profiling Tool (CRPT) by UN-Habitat for urban resilience¹⁵
- The Urban Adaptation Support Tool (UAST) developed by the Covenant of Mayors for Climate and Energy¹⁶
- ICLEI Asian Cities Climate Change Resilience Network (ACCCRN) Process or IAP Toolkit¹⁷
- Climate Resilience Cities Action

Plan Methodology (CRCAP) by ICLEI - Local Governments for Sustainability (Box 1)¹⁸

- How to Make Cities More Resilient: A Handbook for Local Government Leaders, by the United Nations Office for Disaster Risk Reduction¹⁹
- A Guide to Climate Change Adaptation in Cities, by the World Bank²⁰
- The Dynamic Adaptation Model by the Institute of Flood and Water Management at the Bangladesh University of Engineering and Technology (BUET) (Box 2)²¹

Using these tools does not involve great cost. However, resilience planning requires an integrated approach. This includes involving relevant stakeholders; regular monitoring of local resilience actions to understand their impacts on national targets and ensure effective implementation; checking for mal-adaptation (when adaptation inadvertently leads to increased vulnerability); and measuring the increase in adaptive capacity of communities. In addition, since national government administers local governments in Bangladesh, local plans need to be integrated with national objectives for better budget allocations.

Box 1: The CRCAP Process,

developed by ICLEI South Asia with support from the Swiss Agency for Development and Cooperation, provides step-by-step guidance to develop a climate-resilient city action plan. It is based on the premise that climate resilience includes both mitigation (reduction of greenhouse gas emissions) and adaptation (addressing impacts such as sea-level rise, precipitation and temperature changes), and the linkages across both. This process equips local governments to estimate their emissions, assess climate risks, identify resilience actions, and develop an implementation and monitoring plan.

CRCAP Cycle



Box 2: The Dynamic Adaptation Model (DAM)

is a continuation of the Delta Dynamic Integrated Emulator Model developed in the Ecosystem Services for Poverty Alleviation Deltas project (2010-2018). This model assesses adaptation deficits and future climate risks by considering several dynamic factors, such as social, cultural, political and financial barriers, geographical indicators and geo-morphological changes. The outputs of the model include priority adaptation measures and maps showing the changes in the area caused by adaptation investments, such as building cyclone shelters or using flood-resistant crop seeds. It supports the implementation of the Bangladesh Delta Plan 2100, the National Adaptation Plan, the National Resilience Project, and the Coastal Embankment Improvement ProProject.

Challenges and recommendations

Vertical integration and participation in national consultation processes

Issue: It is well established that bottom-up vertical integration is more effective than top-down approaches in formulating policies. However, in Bangladesh, corporation staff even in big cities like Rajshahi and Narayanganj are not always aware of national policy goals, let alone smaller municipalities like Singra or Faridpur. Cities are rarely consulted by national governments while preparing climate or development plans, although these plans are implemented by them. As a result, national plans do not always respond to on-the-ground needs.

Recommendation: Local governments should participate in consultation processes for formulating national plans and programme with the

Planning Commission, along with non-governmental organisations, community-based organisations, and policy and research institutions. This can also assist in holistic planning at a regional level for cities and nearby villages. Effective and financially-viable local climate actions, if monitored properly, can provide evidence to align national plans and budgets with local needs. Resilience planning tools, such as the Climate Resilience Cities Action Plan Methodology, can help to guide the integration of local actions into national policies and programmes, and develop participatory strategies.²²

Increased resource allocation to accelerate local climate actions

Issue: Larger city corporations allocate some funds for climate action, but no municipality has separate climate budget lines. There is also currently no financial arrangement offered by national government and multilateral entities to channel climate finance to the local level.

Recommendation: The annual national budget allocation for environment and climate change, reduced in the 2020-2021 fiscal year by about 0.03 percent,²³ needs to be increased. The tools mentioned above can help cities make realistic estimates of climate finance requirements for local resilience action. The Bangladesh Delta Plan 2100 has already indicated resources needed for climate action for the next 10 years. The Bangladesh Climate Change Trust Fund²⁴ was developed in 2010 to finance climate action by the government. Currently, the Bangladesh Climate Fiscal Framework of 2014²⁵ provides principles and tools for climate fiscal policy-making. It could be strengthened by subsidising sustainable green energy, promoting green banking and increasing budgetary allocations to the Climate Change Trust Fund. Local and regional governments should have more autonomy to leverage investments from public-private partnerships. Innovative financial instruments like blended finance

(for example loans, grants, bonds, microfinance, tax revenue, community lending and crowdsourcing) should be explored.

National knowledge management 'cells' could be established to provide climate finance information to local governments and bring together multiple intermediaries to improve the prioritisation and allocation of resources. They can also facilitate technical and scientific training of local government officials by linking them with relevant training providers. By linking local governments with relevant national ministries, these cells could ultimately strengthen inter-government coordination and provide information on national regulation systems to guide urban resilient development.

Continuous monitoring and documenting of climate actions and impacts

Issue: Local governments are unable to assess the outcomes and impact of their climate actions due to lack of monitoring, thereby failing to contribute to national government outcomes. The Planning Commission requires Environmental Impact Assessments for each development project prior to approval; but this does not include an assessment of climate impacts.

Recommendation: A mix of qualitative and quantitative monitoring of projects helps in assessing their financial efficacy, while ensuring social equity. Sufficient evidence suggests that qualitative approaches (for each example, outcome harvesting) are essential,²⁶ particularly while monitoring indirect or unexpected co-benefits of climate action. Tools such as the ICLEI ACCCRN Process and the DAM Model by the Bangladesh University of Engineering and Technology can help assess improvements in local adaptive capacity through their iterative application. The EIAs for development projects should be supplemented with a Rapid Climate Risk and Vulnerability Assessment report for these projects.

Technical capacity building at local level

Issue: The Local Government and Rural Development Sector Strategy Paper (2018) identified that insufficient knowledge and human resources hinder local governments from performing efficiently.²⁷ Smaller towns like Kushtia, Singra and Mongla have few municipal officials who can plan for impending climate disasters. Even the recently-hired municipal planners have little knowledge about climate change and its implications on urban development. Moreover, there are no holistic regional plans to address rural and urban needs together, even though they are closely linked socio-economically and ecologically.

Recommendation: Local government staff require technical training to enhance their understanding of climate change. Those who participate in conferences and workshops should share their learning with other officers. To make long-term resilience plans more sustainable and socially-equitable, skills development activities

should focus on ways to access, mobilise and disburse national and international climate finance, consider gender-responsive approaches to climate action, and enhance regional cooperation.

An internal unit can be set up in local governments to facilitate capacity-building initiatives using the services of public institutions, non-governmental organisations and research institutes. Trainings can be generic or specific, such as focussed on waste and water management and transport, rural-urban linkages, climate and gender inclusivity. Building internal capacity of local governments will reduce dependency on external institutions.

Improved consultation and coordination with key local actors

Issue: Citizen participation or consultation in planning, formulating and implementing programmes is rare. In cities like Rajshahi, Mongla and Faridpur, there were no formal mechanisms for public consultations before ICLEI South Asia's work in

developing climate plans, which set up stakeholder groups in the cities.

Recommendation: It is recommended local governments consult a wide range of key actors in assessing climate risks and identifying solutions, such as public institutions, non-governmental and community-based organisations, academia, community representatives and private and research institutions. Women and other marginalised citizens should be included in stakeholder groups. In Rajshahi and Narayanganj, ICLEI South Asia formed stakeholder groups for certain projects in consultation with local governments. These groups now also consult with the municipalities for other projects. The most effective stakeholder groups consist of members who could facilitate action on climate change or are impacted by it. In addition, interdepartmental cooperation within a municipality and with other government agencies, such as the local disaster management committee,²⁸ can promote good governance for better resilience planning and action.

Endnotes

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