




Policy Brief




**Urban Health and Climate Change in
Bangladesh: Building Resilient Cities for
a Sustainable Future**



The Policy Brief is prepared under the fulfilment of the project of “Technical assistance for sustainable functional comprehensive online web portal for hosting website information, data, feature, publication and policy advocacy for strengthening urban primary health care services”. Additional information about BUHN activities may be obtained from the Secretariat.

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Urban Health and Climate Change in Bangladesh: Building Resilient Cities for a Sustainable Future



Background

Bangladesh is one of the world's most climate-vulnerable countries, facing rising temperatures, uncertain rainfall, sea-level rise, and more frequent natural disasters ¹. The problems have disproportionately affected cities where more than 40% of the population currently lives, primarily in Dhaka and Chattogram ². Rapid urbanization has exacerbated issues such as flooding, excessive heat, hazardous air pollution, and inadequate waste management ³. At the same time, cities are major sources of greenhouse gas emissions, particularly from transportation, industry, and energy consumption. The urban poor, who are frequently grasped into informal settlements, bear the greatest burden of these climatic consequences, experiencing higher risks with fewer resources to cope ³. While Bangladesh has implemented various climate policies throughout the years, the majority lack a strong urban focus. The National Adaptation Program of Action (NAPA, 2005) brought new farming and disaster response technologies but did not address city-specific solutions ⁴. The Bangladesh Climate Change Strategy and Action Plan (BCCSAP, 2009) addresses broad themes such as poverty, infrastructure, and disaster management, but despite its expansion to 11 thematic areas, urban challenges are overlooked ⁵. The long-term Bangladesh Delta Plan 2100 takes a comprehensive approach to water and food security, but its city policies are unclear ⁶. More recent plans, such as the 8th Five Year Plan (2020) and the Perspective Plan 2021-2041, advocate for green growth, climate financing, and gender inclusion, but real urban initiatives are still lacking ^{7,8}. Even the Nationally Determined Contributions (NDCs, 2021), which seek to reduce emissions by 15% by 2030, lack specified urban mitigation solutions ⁹. The National Adaptation Plan (NAP, 2023-2050) addresses major issues such as water and disaster management, but does not specify how cities should execute these measures ¹. The new Climate Change and Gender Action Plan (CCGAP, 2024) is a step forward in empowering women in climate action, although its urban applications remain underdeveloped ¹⁰. The reality is that Bangladesh's cities, which are overcrowded, stretched by inadequate infrastructure, and separated by severe disparities, require focused solutions. Existing policies fail to address the special threats that cities



Executive Summary

Bangladesh's rapidly urbanizing cities are increasingly vulnerable to the impacts of climate change. With over 40% of the population now residing in urban areas, challenges such as flooding, extreme heat, poor air quality, and inadequate waste management disproportionately affect the urban poor—particularly women, slum dwellers, and informal workers. While the country has adopted major climate policies such as the National Adaptation Plan (NAP 2023–2050) and the Bangladesh Delta Plan 2100, urban climate resilience remains under-prioritized.

This policy brief identifies critical gaps in the existing policy landscape, especially the lack of urban-specific adaptation strategies, weak local governance capacity, and insufficient inclusion of marginalized communities. It offers actionable recommendations to develop climate-resilient cities by integrating health-focused urban planning, strengthening municipal institutions, and embedding equity in climate financing. Urgent action is needed to ensure that Bangladesh's urban growth is both climate-resilient and socially inclusive.

¹ Ministry of Environment, Forest and Climate Change. National Adaptation Plan of Bangladesh (2023-2050). Dhaka: Government of Bangladesh; 2022

² World Bank. Urban population (% of total population) - Bangladesh [Internet]. 2023 [cited 2025 May 22]

³ World Bank. Urbanization and Climate Resilience in Bangladesh. Washington, DC: World Bank; 2023

⁴ Ministry of Environment and Forests. National Adaptation Programme of Action (NAPA). Dhaka: Government of Bangladesh

⁵ Ministry of Environment and Forests. Bangladesh Climate Change Strategy and Action Plan (BCCSAP). Dhaka: Government of Bangladesh; 2009

⁶ General Economics Division. Bangladesh Delta Plan 2100. Dhaka: Government of Bangladesh; 2018

⁷ General Economics Division. 8th Five Year Plan. Dhaka: Government of Bangladesh

⁸ General Economics Division. Perspective Plan of Bangladesh 2021-2041. Dhaka: Government of Bangladesh; 2020

⁹ Ministry of Environment, Forest and Climate Change. Nationally Determined Contributions (NDCs) 2021 Bangladesh. Dhaka: Government of Bangladesh

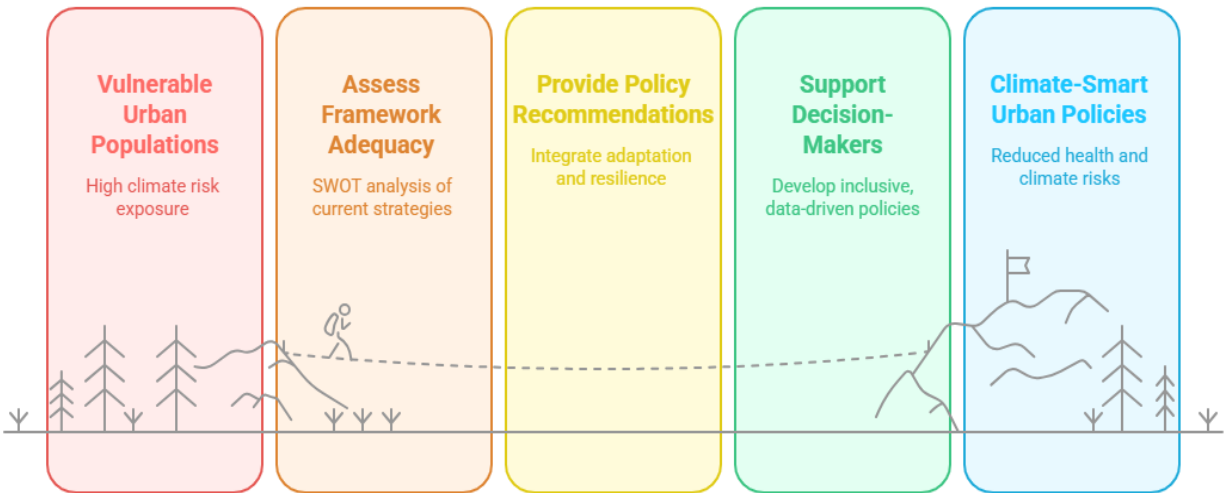
¹⁰ Ministry of Environment, Forest and Climate Change. Bangladesh Climate Change and Gender Action Plan (CCGAP). Dhaka: Government of Bangladesh; 2024

face, such as fatal heatwaves and chaotic drainage systems. Local governments lack the authority and resources to act, and marginalized groups, particularly women and slum dwellers, are frequently excluded from planning, worsening poverty and threatening the country's future prosperity, unless urgent city-focused solutions are implemented^{1,8}.



Purpose

The purpose of this policy brief is to critically examine the gaps in Bangladesh's current climate change policies with respect to urban health vulnerabilities and climate resilience, particularly in major cities such as Dhaka and Chattogram etc.

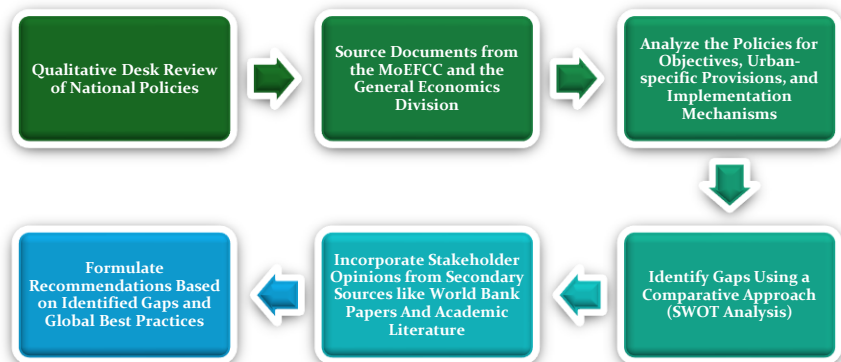


Methodology

This policy brief is based on a desk review of national climate and development policy documents published between 2005 and 2024, including the NAPA, BCCSAP, BDP 2100, NDCs, and the 8th Five Year Plan. A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was conducted to assess the relevance and effectiveness of these policies in addressing urban health and climate change resilience.

Supplementary insights were drawn from peer-reviewed literature, urban climate vulnerability assessments, and institutional reports by the

World Bank and MoEFCC. The analysis was guided by key themes: urban health, local governance, gender equity, and climate resilience. Recommendations were developed with reference to global frameworks, including the Sendai Framework for Disaster Risk Reduction and the Sustainable Development Goals (SDGs), to align local actions with international best practices.





Policy Analysis

This SWOT analysis highlights the strengths, weaknesses, opportunities, and threats of each policy in the context of urban health and climate change resilience in Bangladesh, as summarized below-

Policy	Strengths	Weaknesses	Opportunities	Threats
National Adaptation Programme of Action (NAPA), 2005	-Technology for agriculture, fisheries, disaster management. - Focus on poverty & gender	-No urban-specific measures -Weak infra & governance focus	-Adapt tech for urban needs -Urban poverty programs	-Urban neglect continues -Poor enforcement
Bangladesh Climate Change Strategy and Action Plan (BCCSAP), 2009	- Thematic breadth (food, infra, mitigation) -Emphasis on poverty & capacity	- Misses drainage, heat island risks -Weak urban strategies	-Add urban resilience in update -Expand urban research	-Diluted urban focus -Data gaps limit planning
Bangladesh Delta Plan (BDP), 2100	-Long-term, holistic planning -ADM model & funding	-Unclear city policies -Weak urban enforcement	-Tailor ADM to cities -Integrate cities into investment plans	-Slow rollout -Limited urban resources
8th Five Year Plan (FYP), 2020	-Climate funds, gender inclusion -Decentralization & migration addressed	- Weak local govt. capacity - Few urban-slum initiatives	-Strengthen city governance - Expand gender inclusive urban plans	-Poor local implementation -Fast urban migration pressure
Perspective Plan of Bangladesh, 2021-2041	-Green growth, pollution control -Climate finance & institutions	-No urban action details -Weak local environmental roles	-Use green taxes for urban resilience -MoEFCC can lead city focus	-Resistance from industry -Slow institutional reforms
Nationally Determined Contributions (NDCs), 2021	-Ambitious GHG targets -Sectors include cities	- Lacks city-level mitigation plans -Poor urban enforcement	-Launch urban emissions programs -Boost urban waste management	-Reliant on conditional aid -Urban emissions may rise
National Adaptation Plan of Bangladesh, 2023-2050	-Covers 8 sectors* incl. water, disasters etc. -Push for resilience & growth	-No urban execution strategy - Lacks city-level data	-Urban-specific adaptation plans -Invest in real-time urban monitoring	-Excludes city vulnerabilities -Funding limitations
Bangladesh Climate Change and Gender Action Plan (CCGAP), 2024	-Gender equality & budgeting -Promotes women's participation	-Weak urban application -Excludes informal groups	-Urban gender programs -Fund women's urban livelihoods	-Minimal urban focus -Social barriers for women

*8 Sectors: 1. Water 2. Disaster 3. Agriculture & Food 4. Fisheries & Livestock 5. Forestry, Biodiversity & Ecosystem 6. Urban 7. Health 8. Coastal Zones & Marine



Key Policy Recommendations

To ensure effective advocacy and measurable outcomes, the following seven recommendations provide a roadmap for urban climate-health action in Bangladesh. These are actionable, fundable, and align with Bangladesh’s national policies and global commitments under the UNFCCC, COP processes, and SDG agenda.

<p>Establish Urban Climate-Health Task Forces in Major Cities</p> <ul style="list-style-type: none"> -Create city-level multi-sectoral task forces (municipal governments, MoHFW, MoEFCC, civil society, academia) to lead integrated urban planning. -Assign authority through the Local Government Division (LGD) and link task force mandates to the National Adaptation Plan (NAP 2023–2050). 	<p>Develop and Enforce City-Specific Heat Action and Air Quality Management Plans</p> <ul style="list-style-type: none"> -Require metropolitan areas and divisional cities to implement Heat Action Plans by 2026. -Update the Clean Air Act to mandate real-time air quality monitoring and transparent public reporting. -Introduce pollution accountability protocols for urban industry and transport sectors 	<p>Mandate Climate Integration in Urban Slum Upgrading and Housing Policies</p> <ul style="list-style-type: none"> -Climate-proof all ongoing urban housing and infrastructure programs (e.g., NUPRP). -Include flood-resilient drainage, cooling infrastructure, and clean water systems in all slum development schemes. -Ensure that women, informal workers, and migrants are prioritized in planning and benefit targeting
<p>Allocate Dedicated Budgets for Health-Integrated Climate Action in Urban Areas</p> <ul style="list-style-type: none"> -Mandate that 10% of all urban climate finances be ring-fenced for health co-benefits (e.g., heat shelters, disease surveillance, WASH). -Integrate urban climate-health spending into the Climate Fiscal Framework and track using the Integrated Budget and Accounting System. -Prioritize investments in maternal-child health, non-communicable disease (NCD) prevention, and pollution-related illness surveillance in city health budgets. 	<p>Strengthening Municipal Governance and Technical Capacity for Resilience Planning</p> <ul style="list-style-type: none"> -Institutionalize local urban climate cells within all City Corporations and Pourashavas. -Provide climate risk training to municipal engineers, urban planners, and frontline health workers. -Adopt e-governance tools for participatory climate planning and data-driven service delivery. 	<p>Establish an Urban Climate Health Fund with Blended Financing</p> <ul style="list-style-type: none"> -Sensitize launching an Urban Climate Health Fund within the Ministry of Finance and MoEFCC to finance city-led climate-health interventions. -Mobilize resources from global funds (GCF, Adaptation Fund, Loss & Damage Fund) and create local public-private partnerships for slum resilience, air quality, and WASH infrastructure. -Ensure gender-responsive budgeting and disbursement transparency through independent audit mechanisms
<p>Position Bangladesh as a Global Leader on Urban Climate-Health in COP Processes</p> <ul style="list-style-type: none"> -Advocate for a Bangladesh-led coalition on Urban Climate and Health Resilience at COP30 and beyond. -Integrate urban health risks and city-level mitigation into the country’s next NDC update (due 2025). -Sensitize for national level preparation before COP to bring together government, academia, mayors, and NGOs for a unified negotiation position. -Leverage Dhaka’s climate vulnerabilities and health burdens to push for equity-driven financing and inclusion of urban health in COP declarations. 		

Ministry of Health and Family Welfare (MoHFW); Ministry of Environment, Forest and Climate Change (MoEFCC); Local Government Division (LGD); Non-communicable diseases (NCDs); National Urban Poverty Reduction Programme (NUPRP); Water, sanitation, and hygiene (WASH); Green Climate Fund (GCF); United Nations Framework Convention on Climate Change (UNFCCC); Conference of the Parties (COP); Sustainable Development Goals (SDGs); Nationally Determined Contributions (NDC)



Case Study: Climate Vulnerability Snapshot-Dhaka

Air Quality: Hazardous Levels Persist

PM2.5 Concentration: Dhaka's average PM2.5 level reached 124 $\mu\text{g}/\text{m}^3$, exceeding WHO's 24-hour standard of 15 $\mu\text{g}/\text{m}^3$ by over eight times¹.

AQI Rankings: The city ranked 8th globally for worst air quality on April 11, with an AQI of 149, categorized as "unhealthy for sensitive groups."²

Health Impacts: Elevated air pollution levels increase risks of respiratory issues, cardiovascular diseases, and premature deaths.

Water Quality: Contamination Concerns

Industrial Pollution: Heavy metal contamination from industrial effluents, including lead and cadmium, has deteriorated water quality, posing severe health risks.³

Health Impacts: Contaminated water sources elevate the risk of waterborne diseases such as diarrhea, dysentery, and typhoid.⁴

Soil Quality: Toxic Exposure

Heavy Metal Pollution: Approximately 45% of agricultural land in Bangladesh is polluted with heavy metals like lead, cadmium, arsenic, chromium, and nickel, found at levels three to eight times above safe limits.

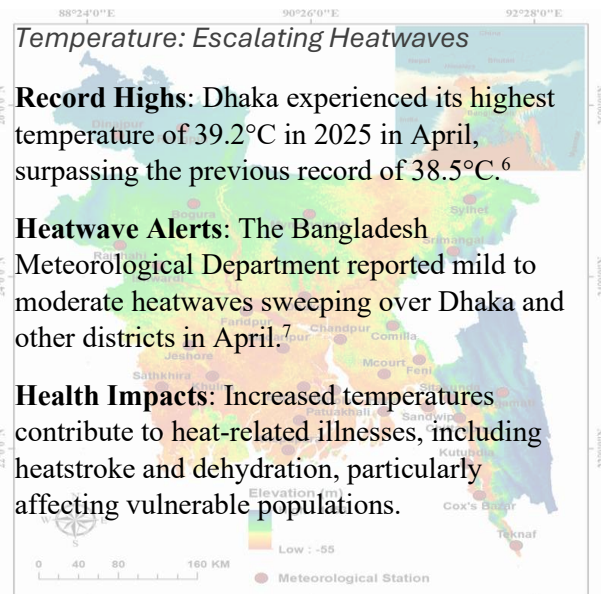
Health Impacts: Soil contamination leads to reduced crop yields and increased health problems, including IQ loss in children due to lead exposure.⁵

Temperature: Escalating Heatwaves

Record Highs: Dhaka experienced its highest temperature of 39.2°C in 2025 in April, surpassing the previous record of 38.5°C.⁶

Heatwave Alerts: The Bangladesh Meteorological Department reported mild to moderate heatwaves sweeping over Dhaka and other districts in April.⁷

Health Impacts: Increased temperatures contribute to heat-related illnesses, including heatstroke and dehydration, particularly affecting vulnerable populations.



1. <https://www.thedailystar.net/opinion/focus/news/what-we-know-and-what-we-can-do-3850041>; 2. <https://www.observbd.com/news/520469>; 3. <https://policywatcher.com/2025/04/how-far-the-50-year-chinese-blueprint-for-sustainability-will-shape-bangladeshs-water-management/>; 4. <https://doi.org/10.1038/s41598-024-80063-4>; 5. <https://www.newagebd.net/post/opinion/263063/industries-behind-toxic-soil-lives>; 6. <https://en.bonikbarta.com/environment/1vaQSV3yeKN4JXqj>; 7. <https://www.thedailystar.net/environment/weather/news/mild-moderate-heat-wave-sweeps-over-14-districts-including-dhaka-3863326>

Policy Relevance

Act Now: Dhaka's Health is on the Line!

Dhaka's toxic air—averaging PM2.5 levels over 8 times the WHO limit—ranks it among the world's most polluted cities, driving surges in asthma, heart disease, and premature deaths. Simultaneously, contaminated water and soil from industrial waste are fueling outbreaks of diarrhea, typhoid, and long-term developmental harm in children. With record-breaking heatwaves compounding these threats, urgent policy action is needed to protect urban health through clean air laws, pollution control, and heat-resilient infrastructure.

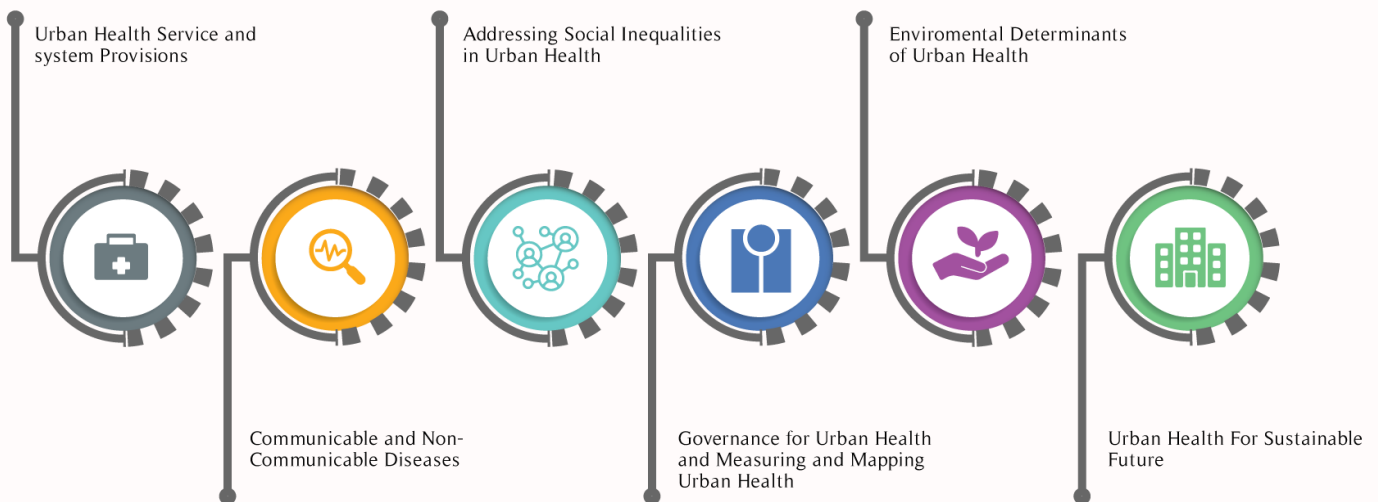
WHO ARE WE

Established in 2009, the **Bangladesh Urban Health Network (BUHN)** is a civil society network dedicated to advancing health equity in urban areas. Secretarial support for Social Development is provided by Eminence Associates, facilitating the network's operations. BUHN serves as a platform that unites diverse stakeholders in the urban health sector, fostering effective collaboration. Moreover, it collaborates with other organizations to host conferences aimed at addressing challenges within the urban health sector and seeking potential solutions.

Affiliated with the International Society for Urban Health (ISUH), BUHN has its well-developed website. The site serves as a comprehensive repository featuring resources, articles, and insights, facilitating information sharing within the community. Additionally, the website includes blogs and monthly e-newsletters to enhance communication and knowledge dissemination among its members.

BUHN Thematic Areas:

The following thematic focus areas are included for the activities of BUHN, but it will not be limited to these, and can extend beyond the following:



For further information, Please contract:

Bangladesh Urban Health Network (BUHN)

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Endorsement of Policy Brief



CLIMATE ALERT FOR CITIES!



BUHN Rallies Behind New Policy Brief to Protect Urban Health

The Bangladesh Urban Health Network (BUHN) is thrilled to endorse a game-changing policy brief: *“Urban Health and Climate Change in Bangladesh: Building Resilient Cities for a Sustainable Future”*. As rising heatwaves, killer floods, and toxic air grip our cities, these urgent brief lights the way forward through connecting existing strategies towards bold actionable move.

Endorsing this policy brief means backing a set of concrete, measurable actions to make Bangladesh’s cities climate-resilient and health-protective. This includes advocating for:

- Dedicated budget allocations for urban health-climate integration.
- Inclusive urban slum upgrading and municipal empowerment.
- Bangladesh’s global leadership in climate-health diplomacy leading up to COP30 and beyond.

This isn’t just a policy—it’s a wake-up call.

BUHN stands behind its vision and urges governments, planners, donors, activists and youths to join forces for a climate-resilient, healthy urban future.



Endorse. Share. Mobilize.

The time to act is **NOW**.

Join the movement. Amplify the message. Be part of the solution.


Endorse Here!!!

<https://docs.google.com/forms/d/e/1FAIpQLScBnrxWGizj9E64WV4oLv9Kkj6Q11gZqg0kjNP9fT7GVtdibg/viewform>



Let us come together to support resilient cities for a sustainable Bangladesh!!!

#ClimateHealthCrisis #UrbanHealthMatters #BUHN #BangladeshClimateAction #ResilientCitiesNow #PolicyForThePeople



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