



## Youth as Catalysts for Climate Resilience in Dhaka South City Corporation

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### ABSTRACT

Background: Dhaka, one of the world's most densely populated megacities, faces acute climate change vulnerabilities, particularly intensified water stagnation and chronic urban infrastructure stress. Objective: This study investigates the current role, challenges, and policy recommendations of urban youth (aged 18–35) in contributing to local climate resilience initiatives. Materials and Methods: Utilizing a qualitative-dominant mixed-methods approach involving interviews with youth activists and institutional stakeholders in the Dhaka Metropolitan Area (DMA), the findings reveal severe structural barriers impeding youth agency. Results: Specifically, respondents reported high perceived threats from water stagnation (Mean = 4.5), yet critically low levels of institutional support, with only 13% of respondents in agreement. The major reported impediments were lack of funding (Mean = 4.6) and lack of government support (Mean = 4.3). Key recommendations include mandating youth representation in local government (70%) and establishing dedicated "Green" micro-funds (60%). Conclusion: The study concludes that meaningful youth engagement requires transforming governmental processes from tokenistic consultation to genuine structural inclusion and resource decentralization.

**Keyword:** Climate Resilience; Youth Participation; Urban Governance; Water Stagnation; Dhaka Metropolitan Area; Institutional Barriers; Tokenism

### 1. Introduction

Dhaka, the capital city of Bangladesh, is defined by its extreme population concentration, industrial activity, and wealth, making it one of the largest and most densely populated megacities globally, with an estimated 30,093 residents per square kilometer (STATISTA, 2022). This massive population growth, coupled with insufficient and unplanned infrastructure, has placed incredible stress on city dwellers (Shourav & Shamsudinn, 2015), challenging access to basic needs such as clean water, health, and accommodation (Alam & Rabban, 2007).

The city's rapid expansion, encompassing massive human settlements and the growth of national and international trade, has coincided with the unequal development and management of utility services and improper resource management (Rabbani, Rahman, & Islam, 2011). Consequently, the city is highly susceptible to natural hazards, such as excessive rainfall, which severely deteriorates the overall environment and contributes to persistent water stagnation (Haque et al., 2023; Islam & Mahmud, 2022). Many residents, particularly those in densely populated slum areas, possess very limited access to urban services and are disproportionately affected by these climate-related hazards.

Urban youth, often possessing the energy, innovation, and direct local knowledge required for grassroots adaptation, represent a vital, yet frequently marginalized, demographic in climate resilience efforts. This research addresses the critical gap in understanding how structural and institutional factors either enable or impede the active participation of Dhaka's youth in mitigating water stagnation and building long-term climate resilience.

## 2. Literature Review

The engagement of youth in climate change adaptation is increasingly recognized as a crucial component of effective urban resilience strategies globally (UNFCCC, 2020). However, the implementation of youth-led solutions is often hampered by systemic issues, particularly in rapidly urbanizing contexts like South Asia.

### 2.1 Urban Climate Vulnerability and Governance in Dhaka

Dhaka's climate vulnerability is well-documented, marked by cyclical flooding and persistent waterlogging due to inadequate drainage systems and rapid, informal urbanization (Haque et al., 2023). Studies on Dhaka's governance highlight a highly centralized bureaucratic structure (Rabhani et al., 2011) that struggles with localized service delivery and resource distribution (Islam & Mahmud, 2022). This structural rigidity often creates a mismatch between official planning priorities and urgent grassroots needs, exacerbating the impact of hazards on vulnerable populations.

### 2.2 Youth Agency and Barriers to Participation

While youth are often framed as "Agents of Change" (O'Brien, 2019), their participation in formal governance processes frequently remains limited to consultative or symbolic roles—a phenomenon often described as tokenism (Hart, 1992). Research demonstrates that effective youth participation requires genuine power-sharing and access to resources (Checkoway, 2011). In many developing contexts, including South Asia, youth initiatives struggle due to a chronic lack of sustainable funding and unclear bureaucratic pathways for project approval, leading to high burnout and project discontinuity (Mustafa et al., 2018). Addressing climate challenges, therefore, necessitates investigating not just youth capacity, but institutional receptivity.

## 3. Methodology

This study employed a qualitative-dominant mixed-methods design, grounded in an interpretivist paradigm, to capture the subjective experiences, perspectives, and recommendations of youth actors and institutional stakeholders.

### 3.1 Study Setting and Target Population

The research was conducted within the Dhaka Metropolitan Area (DMA), chosen for its acute vulnerability to water stagnation. The target population comprised two distinct, purposively sampled groups:

- 1. Urban Youth Activists (n=30):** Individuals aged 18-35 actively involved in environmental groups or climate action networks.
- 2. Institutional Stakeholders (n=5):** Senior representatives from key organizations, including Dhaka City Corporations (DSCC/DNCC), local Environmental NGOs, and government planning bodies.

### 3.2 Sampling Strategy and Size

A purposive sampling strategy ensured the selection of information-rich cases. Thirty urban youth activists were selected using a combination of purposive and snowball sampling tech-

niques, with the primary criterion being documented involvement in at least one environmental or water management project in last two years. Five institutional stakeholders were selected based on their direct organizational mandate related to urban resilience.

### 3.3 Data Collection and Analysis

Data collection relied on a semi-structured interview guide focused on five themes: youth experience with hazards, challenges to action, institutional support, policy context, and strategic recommendations. All participants provided informed consent and were assured of anonymity.

Data analysis proceeded in two stages: Descriptive statistics were used to quantify closed-ended responses (Likert scale data). Qualitative interview transcripts were analyzed using Thematic Analysis (Braun and Clarke, 2006) to systematically identify, review, and define recurring patterns and core themes within the dataset.

## 4. Results

The analysis revealed a pattern of high youth concern regarding climate impacts juxtaposed against profound institutional and resource-based barriers to action, confirmed through both quantitative and qualitative data.

### 4.1 Quantitative Findings: Threats and Challenges

Youth actors recognize the high urgency of local climate threats, with water stagnation rated as an immediate and severe threat ( $\mu = 4.5$  out of 5). The perceived severity of challenges to action, however, was highest for structural factors: Lack of Funding/Resources ( $\mu = 4.6$ ,  $\mu = 0.51$ ) and Lack of Institutional/Government Support ( $\mu = 4.3$ ,  $\mu = 0.65$ ).

**Table 1: Youth Perception of Key Challenges to Environmental Action (N=30)**

Challenge Category	Mean Score (1-5)	Standard Deviation	Interpretation
Lack of Funding/Resources	4.6	0.51	Most severe, near-universal challenge.
Lack of Institutional/Govt. Support	4.3	0.65	Highly severe, major structural impediment.
Water Stagnation as an Immediate Threat	4.5	0.56	High level of perceived threat immediacy.
Lack of Technical Skills/Training	3.2	0.88	Moderate challenge, varies by individual.
Limited Media/Public Attention	2.8	0.77	Less severe, but still a notable obstacle.

### 4.2 Quantitative Findings: Institutional Support and Collaboration

Institutional skepticism was pronounced. Only 13% (Agree + Strongly Agree) of youth felt that local authorities are supportive, and only 7% believed that policies encourage youth participation (Table 2). This low belief translated directly into poor collaboration efficacy, with 80% of respondents perceiving multi-stakeholder collaboration as either Minimally Effective (40%) or Not Effective at All (40%).

**Table 2: Youth Agreement on Institutional Support for Environmental Initiatives**

Statement	SD	D	N	A	SA	Total Agreement (A+SA)
Local authorities are supportive	47%	30%	10%	7%	6%	13%
Policies encourage youth participation	43%	37%	13%	3%	4%	7%
Collaboration opportunities are clear	33%	40%	17%	7%	3%	10%

### 4.3 Qualitative Findings: Thematic Analysis

The thematic analysis identified three core themes that articulate the experience of navigating the structural barriers in Dhaka.

#### 4.3.1 Theme 1: Tokenism and Bureaucratic Frustration

Youth activists frequently described their engagement with city corporations as a symbolic gesture, lacking follow-through or genuine influence over decision-making. Participation was often solicited for singular events rather than integrated planning. A sense of bureaucratic opacity was pervasive. They felt their involvement was often merely for show, reduced to a "photo opportunity" to create an illusion of inclusion.

*"They call us for a photo opportunity, maybe one consultation meeting when a foreign delegation is visiting, but then our technical proposals disappear into a folder. It's not collaboration, it's just box-ticking for a donor report. We never hear back."* (Youth Activist A, Age 24)

#### 4.3.2 Theme 2: The Vicious Cycle of Funding Dependency

The lack of consistent funding (quantified as the highest challenge in Table 1) creates a cycle where small-scale, youth-led initiatives cannot achieve sustained impact or scale. Projects rely heavily on intermittent, volatile sources either personal capital or short-term NGO grants leading to high project failure rates after the initial phase.

*"We can clean the canal once, organize the community, and remove the plastic, but without a small, dedicated budget for waste disposal contracts and essential maintenance tools, the water stagnation returns within a week. We need a predictable, localized fund, not just a one-time grant."* (Youth Activist B, Age 28)

#### 4.3.3 Theme 3: Demand for a Structural Mandate

Youth recommendations centered on demanding formal, mandated positions within the City Corporation's ward committees. They argued that their current status as external advocates renders them powerless when budgets and regulatory decisions are made.

*"The fundamental problem is legal and structural. Youth groups have no standing in the City Corporation Act or planning law. We don't need another invitation; we need a policy mandate. We need a guaranteed seat at the table to truly influence budget allocation and implementation planning."* (Institutional Stakeholder C, Planning Dept.)

## 5. Discussion

The findings strongly indicate that the youth of Dhaka are acutely aware of climate vulnerabilities, perceiving water stagnation as an immediate threat. Their motivation to act, however, is being systematically undercut by structural deficits, confirming the premise that institutional barriers are the primary impediment to youth agency in urban climate resilience.

The high mean scores for Lack of Funding ( $\mu = 4.6$ ) and Institutional Support ( $\mu = 4.3$ ) are powerfully validated by the qualitative findings on The Vicious Cycle of Funding Dependency and Tokenism. This triangulation shows that youth perceive their agency as being thwarted not by a lack of will or skill, but by an unresponsive governance system.

The finding that only 7% believe policies encourage participation aligns with the conceptual framework of Hart's Ladder of Participation, where current engagement falls into the lowest rungs, such as "Tokenism" or "Decoration" (Hart, 1992). Effective climate adaptation demands collaborative governance (Ostrom, 2009), which is impossible when 80% of youth view collaboration as minimally effective. This suggests the DMA is operating in a state of governance fragility where key actors are systematically excluded from the resilience agenda (Mustafa et al., 2018).

The youth recommendations offer a clear pathway forward: a fundamental shift toward structural inclusion (Checkoway, 2011). Mandating youth representation in ward governance (70%) moves beyond simple consultation toward granting youth actors a legitimate voice in decision-making and resource allocation. Coupled with the demand for a dedicated Green Micro-Fund (60%), these recommendations outline a strategy for decentralizing power and resources to match the high level of grassroots concern and engagement already present in the city, providing a potential model for resilient urban governance in similar developing megacities.

## 6. Conclusion

This study establishes that while Dhaka's urban youth possess a strong awareness of and motivation to combat climate-related hazards, their agency is severely constrained by structural barriers, primarily institutional non-support and resource scarcity. Current collaboration frameworks are failing to leverage this crucial demographic effectively.

For Dhaka to enhance its climate resilience, particularly concerning water stagnation, policymakers must prioritize: (1) formalizing youth representation within local governance structures, and (2) dedicating accessible financial mechanisms to youth-led environmental projects. Future research should focus on developing indicators for measuring the effectiveness of youth participation in urban planning and evaluating the longitudinal impact of dedicated funding mechanisms on local resilience outcomes.

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