

Flood, Migration, and Urban Slum Crisis of Sylhet, Bangladesh

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Abstract

Sylhet, a growing tourist town in Bangladesh, is faced with extreme challenges of recurring flooding, climate migration, and expansion of informal settlements along the Surma River. This study explores how inadequate water management and unplanned urban growth exacerbate the expansion of slums in flood-prone zones. This study adopts a mixed-method approach, the use of GIS mapping, field observation, and stakeholder interview sessions, the paper establishes important correlations between displacement patterns and environmental risk. Studies find that residents in slums are struck by high infrastructure, health, and livelihood disruptions during floods. The research proposes a flood-resilient, participatory planning system that involves integrating slum dwellers as active custodians of the riverfront. The integrated approach offers lessons for other climate-affected cities that strive for just and equitable urbanization.

Keywords: Low-Cost Settlement; Flood Susceptibility; Migration; Surma Riverfront; Community-Participation.

I. INTRODUCTION

Sylhet, in the northeastern part of Bangladesh, is Bangladesh's most scenic and culturally diverse district. It is famous for its undulating tea gardens, holy shrines, picturesque hills, and large haor wetlands and has been a popular tourist spot for a long time. It attracts both domestic and international tourists, along with a significant diaspora from the United Kingdom, creating

substantial income for the regional and national economy (Chowdhury 2020). The growing demand for the city has led to a rush of urban development plans, hospitality industries, and housing investments, particularly along its riversides and wetlands, where natural amenity creates economic wealth. Yet the same waterfront that was so valued for its ecological and recreational potential is now facing extreme pressure from accelerated urbanization and climate-driven displacement.

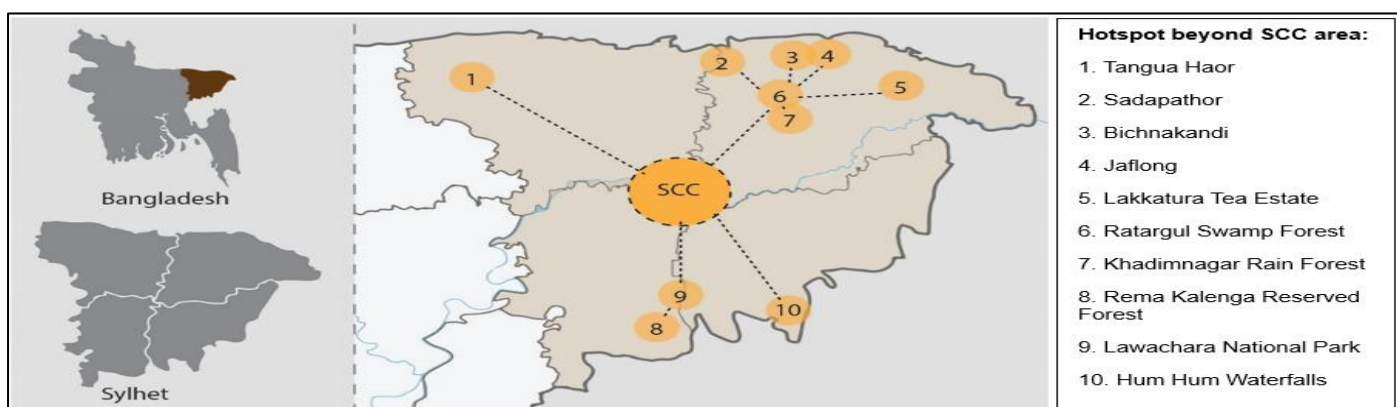


Fig 1 Touristic Hotspots of Sylhet

At the center of the urban metabolism and geography of Sylhet is the Surma River, which splits the city and is one of the principal hydrological arteries of the Meghna basin. The river once supported transportation, agriculture, and trade and contributed to the natural beauty of the city. The Surma has increasingly become, particularly during the monsoon months, a source of environmental risk in the form of flash flooding due to heavy rainfall and upstream release from the Indian highlands. The adjoining lowlands such as Sunamganj, Ashuganj, and Fenchuganj are plagued by recurring inundations, which are further aggravated by sedimentation, indiscriminate embankment, and absence of watershed management. (Haque CE 2016) (Dewan A 2017).

These recurring floods not only damage property and ecosystems but also displace thousands of families—many of whom migrate to Sylhet in search of security, livelihood, and basic amenities. Unfortunately, Sylhet’s urban infrastructure has failed to keep pace with this unplanned influx. As formal housing remains out of reach for most displaced people, they resort to informal settlements—primarily along the riverfront and canals—creating a pattern of flood-induced migration leading to illegal slum proliferation on ecologically sensitive lands. (Ahmed S 2022).

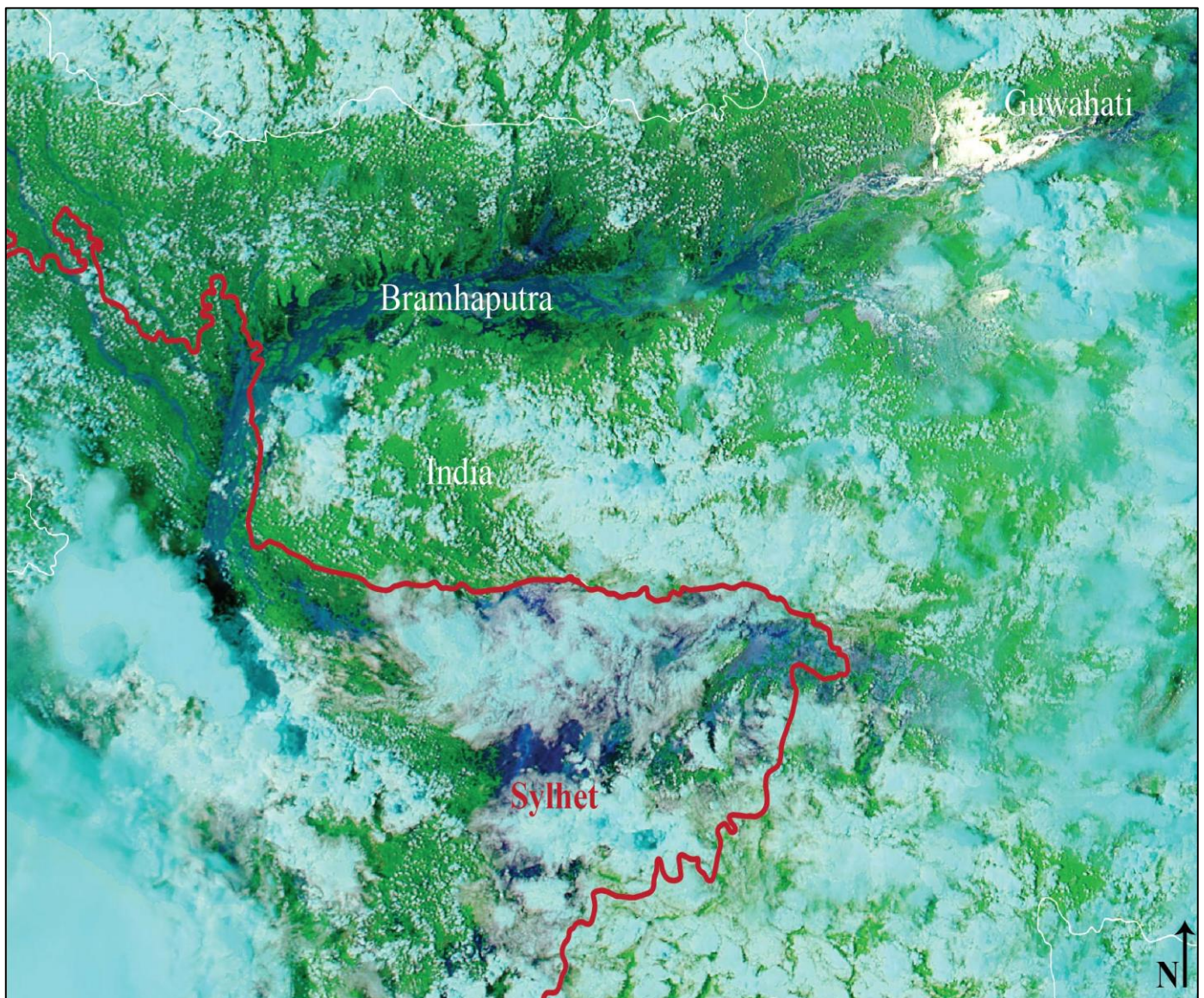


Fig 2 Geographical Location of Sylhet. (Source: Modified from NASA Satellite Images (2022).)

These informal settlements—often lacking secure tenure, drainage, sanitation, and disaster preparedness—pose grave risks to both human life and the riverine ecosystem. The rapid increase in illegal encroachment on Sylhet’s waterfront, particularly along the Surma River, disrupts natural water flow, pollutes the ecosystem, and reduces the city’s resilience to future flooding. Furthermore, this land grabbing, often backed by informal

political-economic networks, erodes public space and undermines potential for waterfront tourism development (Hasan MM 2019) (R. M. Alam M 2007). What was once a riverbank of ecological and recreational value has become a contested terrain between poverty-driven informal habitation and profit-driven illegal real estate interests.

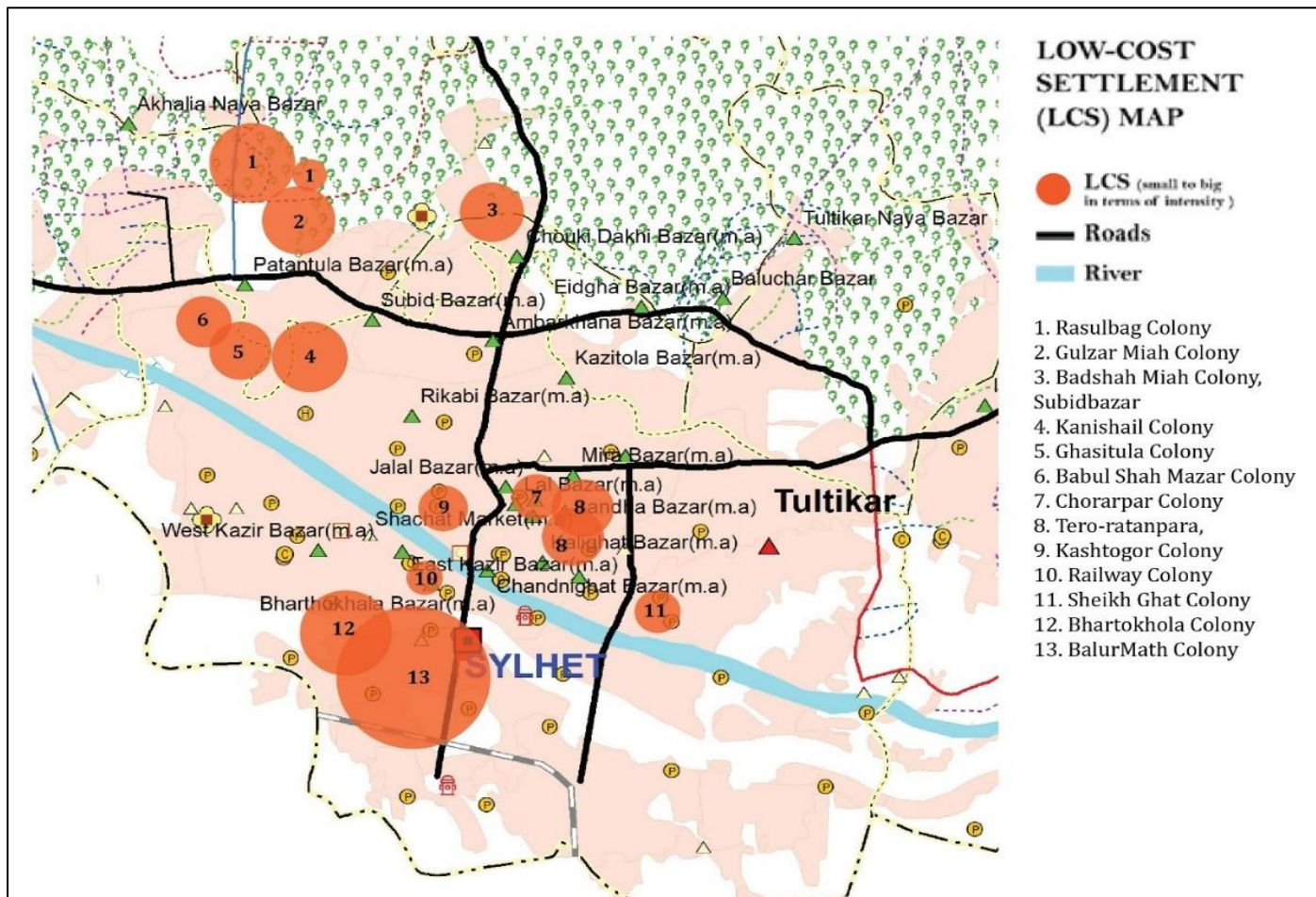


Fig 3 Low-Cost Settlement Map. (Source: (Arefin 2025).)

The stakes are high—the slum population needs protection, opportunity, and access to services, while the riverfront must be restored and preserved to ensure both ecological balance and economic utility through sustainable tourism. This chapter argues for a dual-benefit strategy; one that combines climate-resilient urban planning with inclusive development. By safeguarding the riverfront and integrating slum dwellers into formal planning processes—through relocation, upgradation, or incentivized participation—Sylhet can transform its urban waterscape into a site of equity and regeneration.

➤ *Migration – a Factor Generating LCS:*

While specific migration rates from Sunamganj, Ashuganj, and Fenchuganj to Sylhet City due to flooding

are not readily available, existing data underscores the severe impact of recurrent floods on population displacement across the Sylhet region. According to a nationwide survey by the Bangladesh Bureau of Statistics, between 2019 and 2023, over 15% of the population in Sylhet Division experienced flood-induced displacement—nearly nine times higher than the national average of 1.7% (Tribune 2024). In June 2024, extreme flooding affected over 1.7 million people in the Sylhet and Sunamganj districts alone, with Sunamganj accounting for approximately 792,000 affected residents (Star 2024). These repeated disasters frequently force displaced individuals to migrate toward Sylhet City, seeking temporary or permanent refuge.

Table 1 Displacement Toward Sylhet Sadar: District-wise Contextual Data with Migration Drivers:

District	Estimated Displacement (%)	Population (Approx.)	Flood Impact	Peak Displacement Months	Context / Notes
Sunamganj	45%	2.4 million	High	June–August	Severe flooding in Haor regions leads to large-scale displacement toward Sylhet Sadar slums and shelters.
Moulvibazar	20%	1.2 million	Medium	June–July	Moderate flooding in Kamalganj and Sreemangal causes seasonal migration to Sylhet city.
Habiganj	15%	1.4 million	Medium	July–August	Riverbank erosion and medium-level flooding displace rural

					populations near the Kushiara River.
Sylhet (rural)	20%	2.5 million	High	June–August	Gowainghat, Jaintiapur, and Companiganj face intense floods, pushing rural communities into Sylhet city.

Although precise statistics from Ashuganj and Fenchuganj remain unavailable, reports indicate that upazilas like Fenchuganj were nearly entirely submerged during the same flooding events, suggesting significant displacement from these localities as well (Sangstha 2024). The cumulative result of these climate-driven

movements is the rapid expansion of informal settlements along Sylhet’s vulnerable riverfronts—particularly the Surma River—intensifying the city’s existing challenges in urban planning, infrastructure, environmental degradation, and public health (Standard 2022).

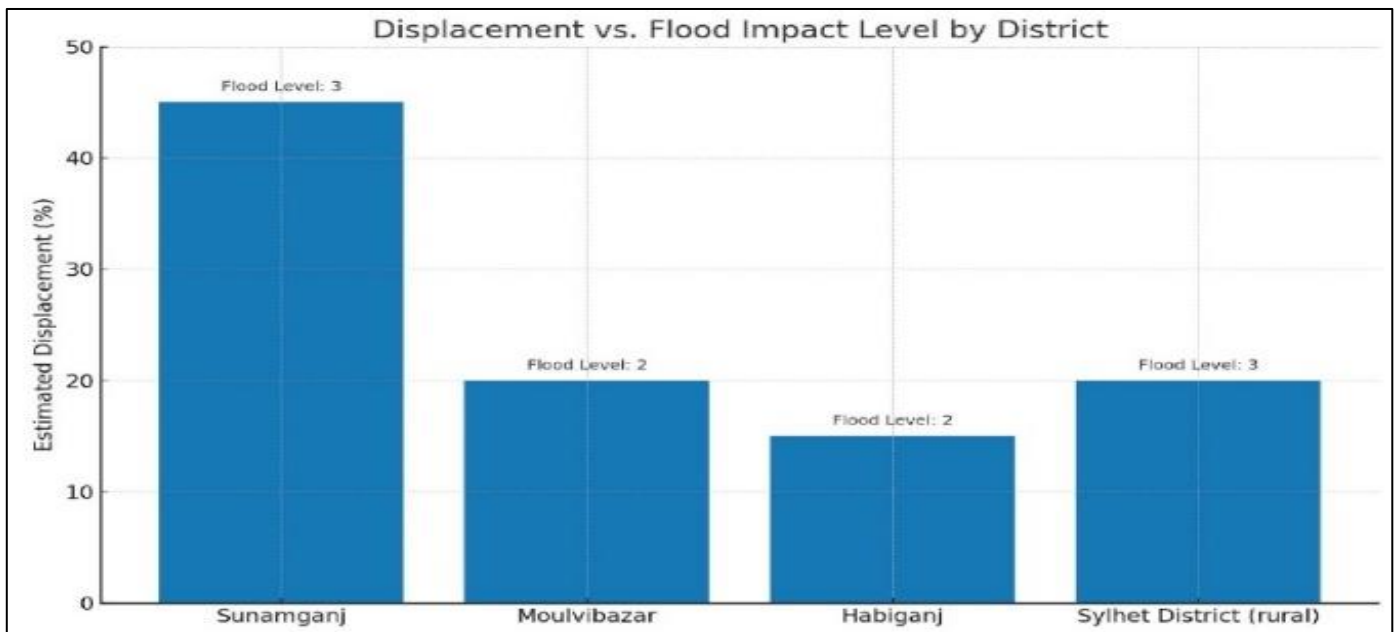


Fig 4 Displacement vs Flood Impact Level. (Source: Author).

➤ *Flooding, Informality, and the Struggle for Sustainable Urbanism in Sylhet*

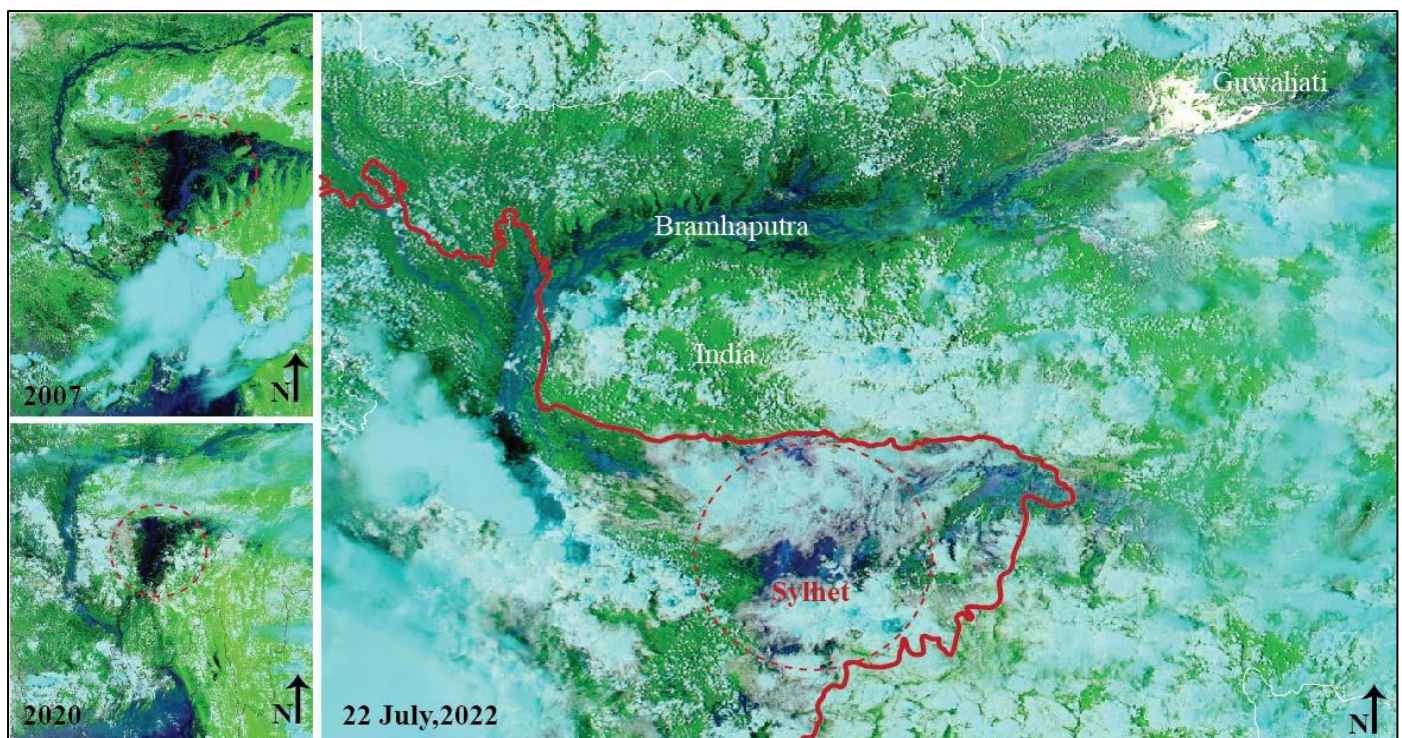


Fig 11 Sylhet’s Flood Cycle. (Source: Modified from NASA satellite-images (2022).)

The situation unfolding in Sylhet presents a critical failure in advancing several core Sustainable Development Goals (SDGs) set by the United Nations. While the city is positioned as a rising tourism destination, it struggles to align with SDG 6 (Clean Water and Sanitation), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action) due to systemic challenges in managing its urban waterscape. The unregulated expansion of slums along the Surma riverfront has not only led to the pollution and encroachment of vital water bodies but also denied thousands of resident accesses to safe water, sanitation, and resilient housing, undermining targets such as SDG 6.6 and SDG 11.1. Furthermore, the failure to implement

long-term climate-responsive planning has left both formal and informal settlements increasingly exposed to annual flood risks, contradicting the intentions of SDG 13.1, which calls for strengthened adaptive capacity to climate-related hazards. The degradation of the Surma riverbanks—a potential ecological and tourism asset—also reflects a missed opportunity to integrate sustainable development with economic growth and environmental protection. These overlapping failures not only threaten the livability and equity of Sylhet but also highlight the urgent need for a more inclusive and integrated approach that bridges climate resilience, urban planning, and social justice in the pursuit of the SDGs. (Nations. 2015).



Fig 5 SDG Failures. (Source: Author).

➤ *Literature Review:*

Flood-induced migration and the resulting growth of informal settlements along riverfronts have been widely studied in both local and global contexts. In Sylhet, (Ahmed S 2022) used GIS mapping and household surveys to show that unregulated urban expansion has concentrated slum settlements along the floodplains of the Surma River. (Haque CE 2016), through participatory mapping and policy review, highlighted how the lack of integration between urban development and disaster management leaves these areas highly vulnerable during flood events.

Nationally, (R. M. Alam M 2007) examined Dhaka's low-income communities and found that flood-displaced migrants often settle near water bodies despite the risks, driven by proximity to work. Their case study method revealed that eviction without support exacerbates vulnerability. Similarly, (Jabeen H 2010), using ethnographic fieldwork, documented how informal communities have developed “built-in resilience” through local adaptation techniques like raised housing and communal support systems.

International research reinforces these findings (Douglas I 2008), through comparative studies in cities like Accra and Jakarta, demonstrated how informal settlements often emerge in ecologically risky zones, especially near rivers. (Few R 2011), using participatory

GIS in Vietnam’s Can Tho city, found that involving riverfront communities in planning led to more resilient and inclusive outcomes.

These studies consistently show that informal waterfront settlements are shaped by both environmental hazards and socio-economic needs. Methodologies such as GIS analysis, participatory planning, and ethnography provide strong frameworks for understanding these dynamics—offering valuable lessons for Sylhet’s efforts to rehabilitate its riverfront while supporting vulnerable communities.

II. METHODOLOGY

This study employs a mixed-methods research design to comprehensively investigate the interconnected dynamics of flooding, migration, and informal settlement growth along Sylhet’s waterfront. combining primary data (field surveys, interviews, FGDs) with secondary data (satellite imagery, flood records, and policy documents). Primary data captured lived experiences in low-cost settlements, while secondary data supported GIS mapping and spatial analysis of flood vulnerability. The approach is divided into three core phases: spatial analysis, field data collection, and qualitative exploration.

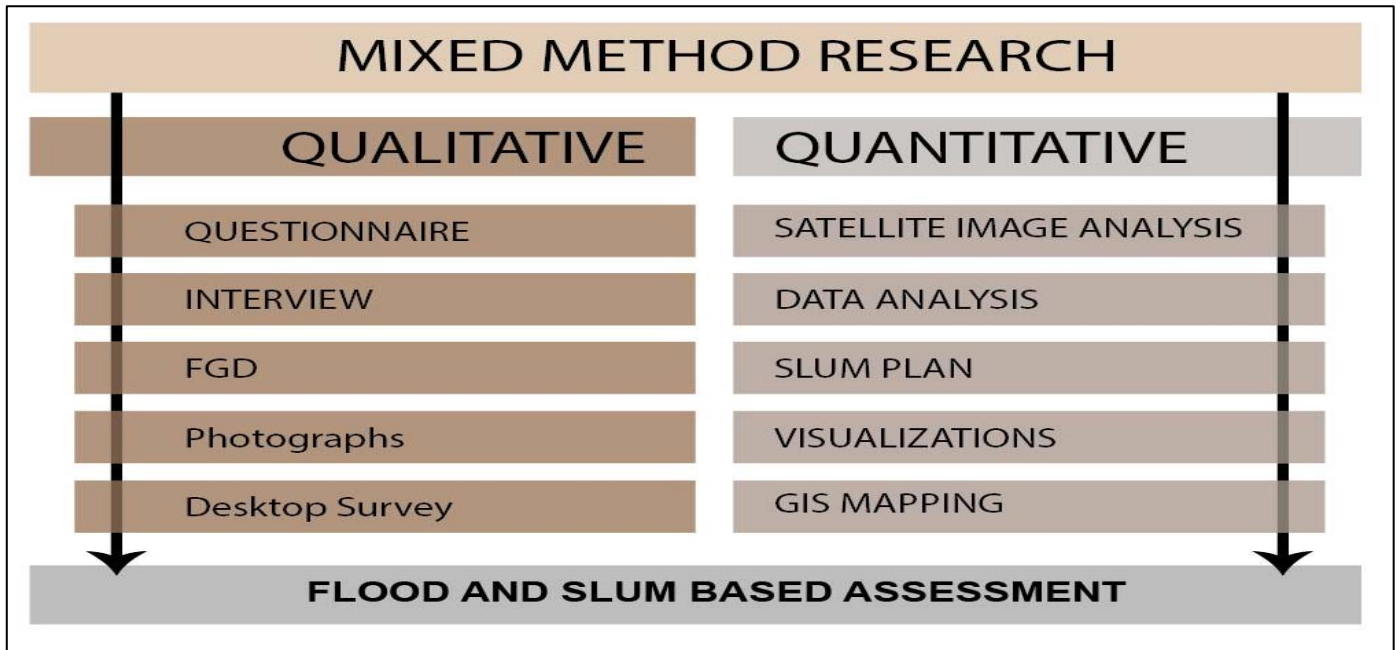


Fig 5 Methodology. (Source: Author).

In the spatial analysis phase, GIS-based flood mapping is used to identify historically vulnerable zones near the Surma River. Satellite imagery and historical flood data are layered with recent land use patterns to track changes in water bodies and nearby encroachments. Additionally, sectional drawings and site documentation of slum areas are produced to understand the physical relationship between topography, waterlines, and informal dwellings.

The field data collection phase includes structured questionnaire surveys conducted within selected slum clusters, focusing on household demographics, flood impact history, livelihood challenges, and adaptive strategies. This quantitative data is complemented by qualitative interviews and FGDs with displaced migrants

to capture narratives of migration, housing insecurity, and coping mechanisms.

The qualitative policy and stakeholder review phase includes semi-structured interviews with urban planners, local authorities, and NGOs to explore existing planning gaps and governance failures. Policy documents and urban development plans are analyzed to understand regulatory responses to illegal riverfront occupation and slum development.

Finally, all spatial and socio-economic data are integrated through GIS layering and comparative analysis, enabling the study to reveal systemic patterns and identify spatially just strategies for both riverfront restoration and inclusive slum upgrading.

Table 2 Methods, Tools and Purpose

Process	Method Type	Tools/Techniques	Purpose
Identification of flood-prone areas	Quantitative	GIS Mapping, Remote Sensing	To spatially analyze recurring flood zones near the Surma River and its banks
Documentation of informal settlements	Quantitative	Sectional drawings, site visits	To record physical growth patterns of slums, especially along the riverfront
Migration analysis	Qualitative	Interviews, Focus Group Discussions (FGDs)	To trace reasons for migration and flood-induced displacement
Questionnaire survey in slum areas	Qualitative	Structured questionnaires	To assess living conditions, flood history, and adaptive behaviors
Stakeholder consultation	Qualitative	Semi-structured interviews	To gather insights from urban planners, NGOs, and municipal authorities
Literature and policy review	Qualitative	Document analysis	To contextualize findings within existing laws and planning frameworks
Mapping correlation between flood & slums	Mixed	GIS + socio-economic data layering	To visually correlate flood-prone zones with slum expansion patterns

➤ *Study Area:*

As a study area we tried to focus on areas that are well connected or adjacent to Surma river and more prominently we determined the ward 10, 12, 24, 26 no

ward. thoroughly studying the areas, we got low-cost settlements located near or adjacent to the Surma River, specifically within Ward 10, 12, 24, and 26 of Sylhet. In Ward 10, two notable slums—*Kanishail Colony* and *Babul*

Shah Mazar Colony—show a mix of clustered and linear housing with shared open spaces like courtyards and verandahs, although poor drainage and waste management are major concerns. Ward 12 includes the *Sheikh Ghat Colony*, a small and scattered settlement suffering from seasonal flooding, poor sanitation, and unplanned spatial development. In Ward 24, *Tero-ratanpara Colony* features a tightly packed linear layout, where the main circulation path is multifunctional—used for movement, social interaction, and even vehicle parking—yet lacks proper communal infrastructure. Finally, Ward 26 hosts *Bhartokhola Colony* and *Balur Math Colony*, both large, densely populated settlements with strong river adjacency. These colonies face severe drainage issues and flooding during monsoon, but their pathways and riverfronts remain vibrant social spaces for everyday community life.

III. RESULT

When a flash flood occurs in these low-cost settlements near the Surma River, the impact is immediate and severe due to the vulnerable physical and infrastructural conditions of the colonies. The colonies—such as Kanishail, Babul Shah Mazar, Sheikh Ghat, Tero-ratanpara, Bhartokhola, and Balur Math—are built with minimal elevation, poor drainage, and unplanned layouts, making them highly susceptible to waterlogging. The open or poorly maintained drainage systems quickly overflow, causing wastewater and solid waste to spread across narrow lanes and pathways, contaminating living spaces.

In slums with linear layouts like Tero-ratanpara and Bhartokhola, the main pathways—used for movement, cooking, storage, and social gatherings—become submerged, halting circulation and disrupting daily life. In some colonies like Balur Math, which already struggles with poor sanitation, entry points turn into stagnant waste

zones, making access and evacuation difficult. The homes, often made of tin and thatch, offer little resistance to rising waters, leading to damage of walls, floors, and stored belongings. In riverside colonies like Bhartokhola, the river often breaches its edge, flooding the backyards that are used for bathing, washing, and socializing.

These flash floods also trigger health risks, including waterborne diseases, due to the mixing of sewage with surface water and lack of clean water supply. Livelihoods are disrupted, especially for van drivers, rickshaw pullers, and day laborers who cannot work or move their vehicles through submerged paths. Children and the elderly are especially vulnerable, as play areas and social spaces become hazardous. Overall, flash floods in these areas transform already fragile living environments into chaotic, unsafe, and unhygienic conditions, with little resilience or recovery infrastructure in place.

➤ Identification of Flood-Prone Areas:

In this study, we conducted an analysis of flood susceptibility zones in Sylhet Sadar using ArcGIS. Six key parameters—land use/land cover, slope, elevation, precipitation, topographic wetness index (TWI), and distance from the river—were incorporated into the flood susceptibility mapping. The final map identifies vulnerable areas prone to flooding, which can help guide precautionary measures and responses during flood seasons. The low-lying plains in the study area are particularly susceptible to flash floods. Our findings reveal that Kazir Gaon, Kurir Gaon, and Umairgaon are in very high-risk flood zones, while South Surma is highly susceptible. Khadimnagar, on the other hand, is the least vulnerable. To mitigate the impacts of flooding, it is essential to install an effective stormwater drainage system across Sylhet City Corporation and implement flood control structures in the most susceptible areas.

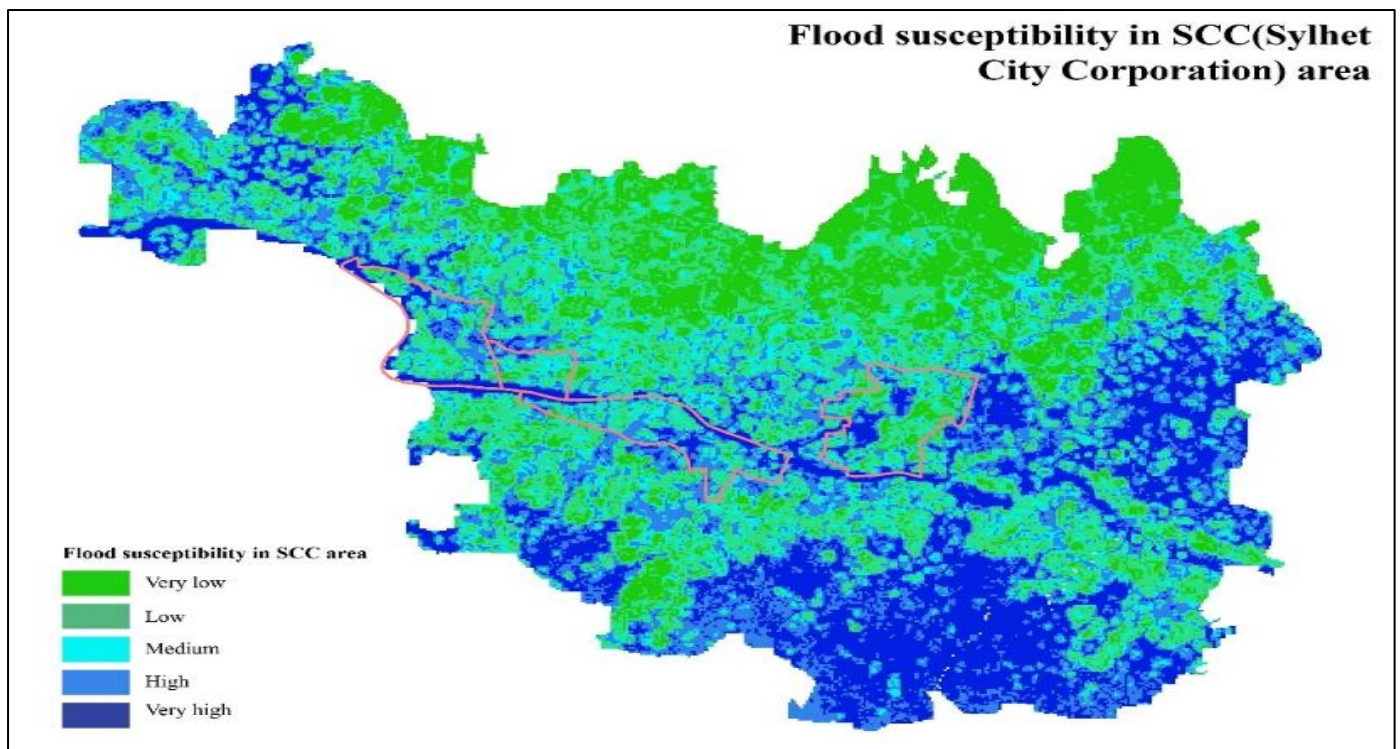


Fig 6 Flood Susceptibility Map. (Source: Author).

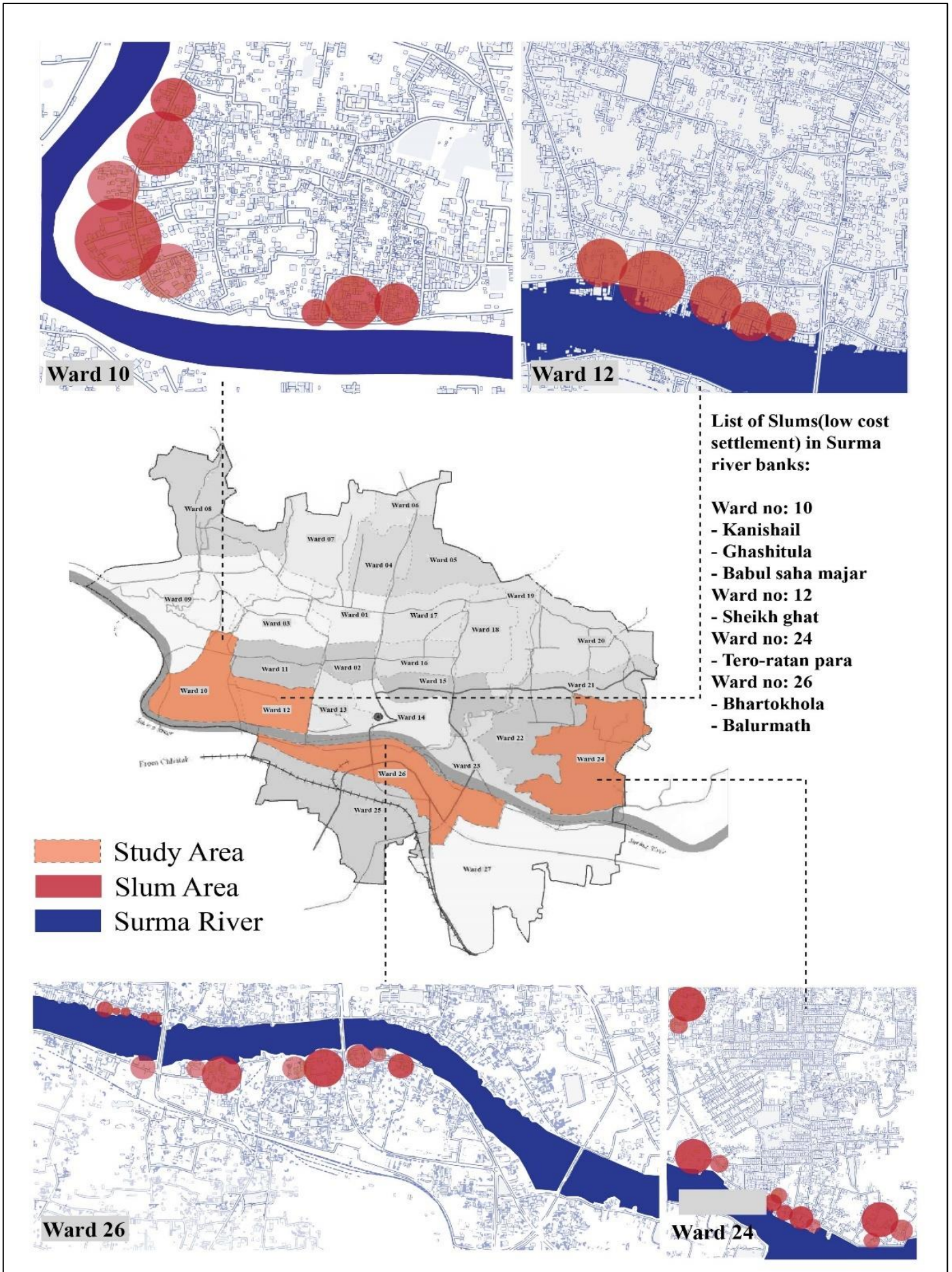


Fig 7 Location of the Low-Cost Settlement based on Ward. (Source: Author).

Here is a comprehensive table that organizes the slum characteristics ward-wise, includes the flood impact (with water level rise).

Table 3 Slum Characteristics Ward-Wise (Appendix 2) Photographs and Sketches-

Ward	Colony Name	Image Source: (Arefin 2025)
10	Kanishail Colony	 <ul style="list-style-type: none"> 1. Rickshaw stand 2. Drying clothes 3. Courtyard 4. Latrine 5. Garden 6. Handpump zone
10	Babul Shah Mazar Colony	 <ul style="list-style-type: none"> 1. Drying Clothes 2. Dumping zone 3. Latrine 4. Shrine 5. Drain
12	Sheikh Ghat Colony	 <ul style="list-style-type: none"> 1. Rickshaw stand 2. Tree shade 3. Latrine 4. Kitchen 5. Handpump zone
24	Tero-ratanpara Colony	

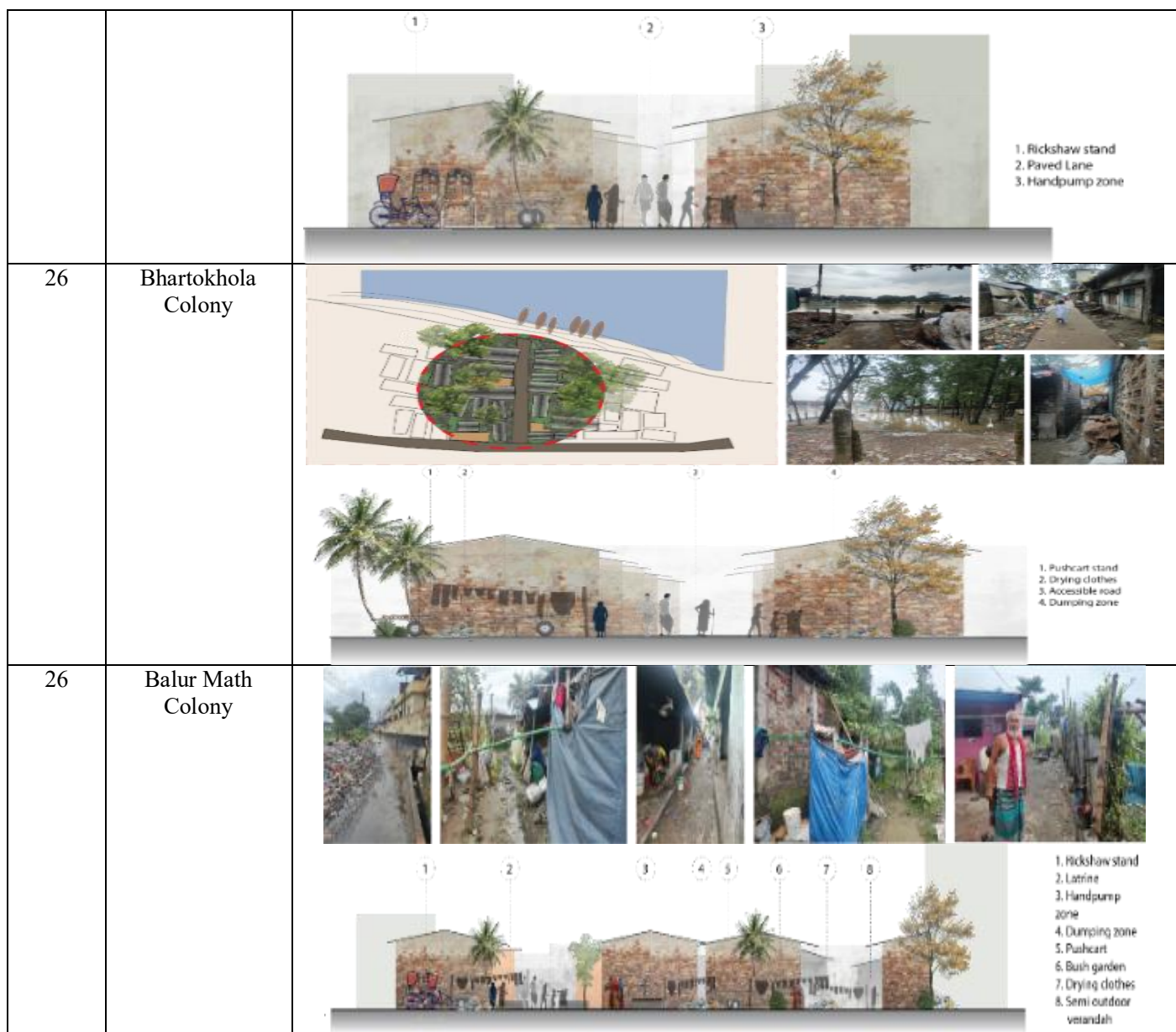


Table 4 Features and Findings-

Ward	Colony Name	Families & Population	Layout & Use of Space	Facilities & Housing Type	Flood Impact (Water Level Rise, Issues)
10	Kanishail Colony	12–16 families per cluster	Clustered with courtyards or linear; used for play, adda, drying clothes	Tube wells at entry; shared toilets/kitchens; adha-paka, tin-shedded, brick/thatched walls	Water rises 3–4 ft; open drainage overflows; no greenery worsens stagnation
10	Babul Shah Mazar Colony	25–30 families	Irregular layout; central 5ft path; Mazar used as community hub	6 permanent toilets; thatched and tin-shedded houses; open drainage	Water rises 3–5 ft; waste scattered around; flooding affects sanitation and movement
12	Sheikh Ghat Colony	12–16 families per cluster (~100–120 people)	Courtyards or linear lanes; narrow 5ft paths for interaction and movement	Poor sanitation; thatched/tin houses; open drains and waste on paths	Water rises 4–5 ft; drainage floods every monsoon, making environment unhygienic
24	Tero-ratanpara Colony	50–60 families	Linear lanes with verandah extensions; used for play, adda, parking	Closed slabbed drains; water jars stored on paths; tin-shedded houses	Water rises 2.5–3 ft; circulation blocked due to parked vans; moderate flood damage

26	Bhartokhola Colony	50–60 families (~240–300 people)	Linear layout facing river; no courtyards; lane used for social activities	Open drains; connected by sub-arterial road; thatched/tin-shedded homes	Water rises 4–6 ft; major flood damage; proximity to river makes it highly vulnerable
26	Balur Math Colony	300–400 families	Sprawling layout; decentralized units; central zone for market, play, adda	Poor sanitation; mix of thatched/tin homes with kitchen/latrine per unit; open drainage	Water rises 5–6 ft; seasonal flooding common; main entry clogs with centralized waste

➤ *Correlation of Flood and Slum Areas:*

The comparative analysis of the slums in Wards 10, 12, 24, and 26 of Sylhet, focusing on physical layout, infrastructure, social use of space, and vulnerability to flash flood scenarios, particularly with water levels rising 3–6 feet during monsoon. (Appendix 2).

➤ *Comparative Analysis of Low-Cost Settlements in Sylhet:*

The selected slums in Wards 10, 12, 24, and 26 share a number of spatial and infrastructural similarities, though they vary in terms of scale, community structure, and environmental vulnerability. All colonies are situated in low-lying areas adjacent to the Surma River, making them highly susceptible to seasonal flash floods that raise water levels by 3–6 feet, often submerging paths, homes, and sanitation facilities.

➤ *Spatial Layout & Circulation:*

Across all wards, linear lanes—typically around 5 feet wide—serve as primary circulation paths and multifunctional community spaces. Colonies like Tero-ratanpara (Ward 24) and Bhartokhola (Ward 26) exhibit strict linear patterns with verandah extensions, while Kanishail (Ward 10) and Sheikh Ghat (Ward 12) offer mixed layouts with occasional shared courtyards. The Balur Math Colony (Ward 26) is more scattered and decentralized, organized around a central market-like zone. In flood events, these narrow lanes turn into water channels, often reaching waist height (3–6 ft), rendering them impassable and disrupting both movement and emergency access.

➤ *Housing & Structural Condition:*

Most houses are tin-shedded and either adha-paka or fully thatched, offering minimal resistance to water intrusion. In colonies like Balur Math and Babul Shah Mazar, poorly constructed homes quickly suffer structural damage during floods. Since many dwellings are built directly on the ground without plinth elevation, even a 3-ft water rise can inundate living areas, damage belongings, and increase exposure to waterborne disease.

➤ *Water & Sanitation:*

Sanitation remains inadequate in all colonies. Shared toilet blocks and open drainage systems are common, with some variation in quality. Colonies like Tero-ratanpara benefit from closed, slabbed drains, whereas Sheikh Ghat, Balur Math, and Babul Shah Mazar rely on open drains which overflow during monsoon. At 3–6 feet of

floodwater, wastewater spills over, contaminating open spaces, creating foul environments, and escalating health risks, especially for children and the elderly.

➤ *Use of Public/Social Spaces:*

Public and semi-public areas—such as courtyards, front verandahs, and lanes—are essential for daily social life, functioning as zones for adda, play, washing, and informal trade. However, these very spaces become hazards during floods, as they are the first to be submerged. In Bhartokhola, for example, the river-facing backyard used for bathing and interaction becomes dangerous and unhygienic during high floods. Similarly, in Kanishail and Sheikh Ghat, communal courtyards lose functionality once floodwaters exceed 3 feet.

➤ *Livelihood & Economic Vulnerability:*

The residents' occupations—rickshaw pullers, van drivers, domestic workers, fishermen, day laborers—are highly dependent on daily mobility. Flood conditions force a halt in economic activity, as transport vehicles cannot navigate submerged pathways, and jobs at terminals or in households become inaccessible. For colonies like Balur Math, where hundreds rely on terminal-based odd jobs, flood-induced unemployment becomes a major socio-economic stressor.

➤ *Flood Scenario Summary (3–6 ft Water Level Rise):*

- Homes inundated, especially those with ground-level flooring.
- Sanitation collapses due to flooded open drains and toilets.
- Pathways submerged, cutting off access to basic services.
- Health risks surge due to stagnant wastewater and solid waste.
- Livelihoods disrupted, especially in transport and day labor sectors.
- Social spaces lost, affecting community cohesion and safety.

Flood susceptibility and Slums area

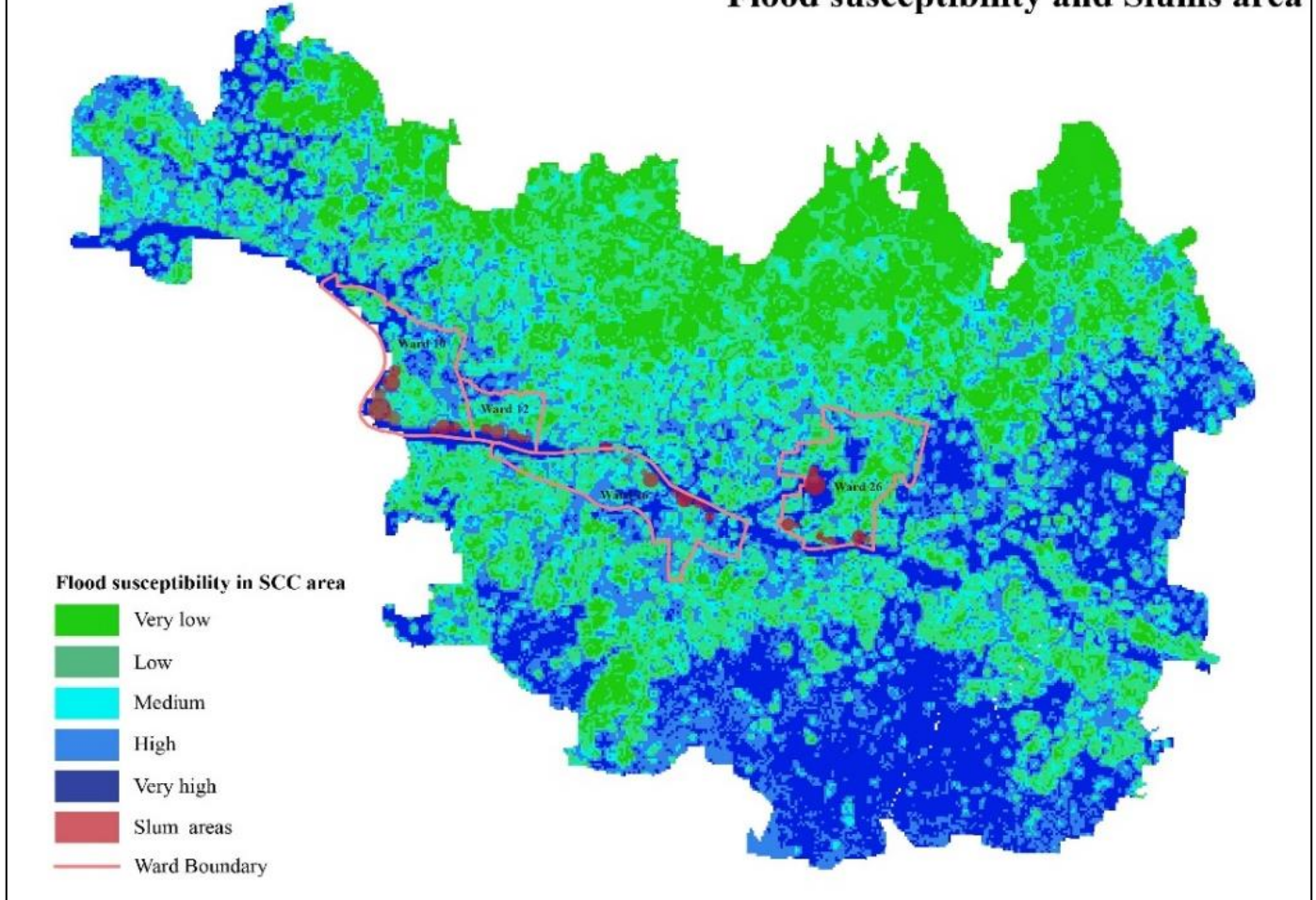


Fig 8 Flood Susceptibility and Slum Area Identification. Source: Author.

Overall, while each ward exhibits slight spatial and infrastructural differences, flooding remains a common and critical threat due to the settlements' location, lack of resilient infrastructure, and dependency on narrow multifunctional lanes. The comparative picture points to an urgent need for elevated housing prototypes, improved drainage systems, flood-resilient communal zones, and emergency response pathways tailored to these high-risk, river-adjacent urban settlements.

IV. DISCUSSION

Following repeated flash floods in Sunamganj, Habiganj, and Moulvibazar, many displaced people have migrated to Sylhet in search of safer living conditions and economic opportunities. However, most of these migrants end up settling in informal slums—especially along the banks of the Surma River—believing these areas offer a better standard of life. Over time, these slums have grown organically, often through illegal encroachment on valuable riverfront land. This not only puts the residents at continual risk—especially during seasonal floods like those in 2020 and 2022 when water levels rose 3 to 5 feet, damaging homes and displacing families—but also threatens the ecological and cultural potential of Sylhet's riverfront.

One of the most pressing concerns is the unchecked expansion of these settlements along the Surma River, a

zone with high potential for tourism and cultural identity. The riverfront, particularly near the iconic Keane Bridge—a heritage structure and symbolic gateway to Sylhet—could become a major tourist corridor. Currently, this vision is compromised by informal settlements lacking infrastructure and resilience.

To address both the vulnerabilities of the slum dwellers and the lost potential of the riverfront, a community-based, water-sensitive urban redevelopment framework is necessary.

➤ *Proposed Framework:*

Inclusive Riverfront Revitalization (slum residents as stewards of the waterfront).

- *Slum Upgradation through Participatory Design*
 - ✓ Engage residents (e.g., rickshaw pullers, fishermen, boatmen) in co-creating better housing with flood-resilient design.
 - ✓ Promote incremental housing models with elevated plinths and modular layouts.
- *Community-Led Riverfront Maintenance and Tourism Model*
 - ✓ Develop a community-managed “tourist trail” along the Surma River.
 - ✓ Slum dwellers can be trained as guides, maintenance workers, local artisans, or service providers.

- ✓ In return, they receive improved infrastructure, tenure security, and access to basic services.
- *Flood-Responsive Infrastructure Planning*
- ✓ Construct raised walkways, safe water points, floating toilets, and drainage systems resilient to 3–5 ft flood levels.
- ✓ Implement green buffers and retention ponds along the river to mitigate flood risk.

- *Cultural Heritage Integration*
- ✓ Highlight historical nodes like Keane Bridge through signage, interpretive installations, and local storytelling.
- ✓ Use cultural events, floating markets, and boat tours to generate local revenue.
- *Policy and Governance Support*
- ✓ Establish a collaborative governance body involving local authorities, NGOs, and resident representatives.
- ✓ Develop inclusive land-use zoning that formalizes housing while protecting key public riverfront areas.

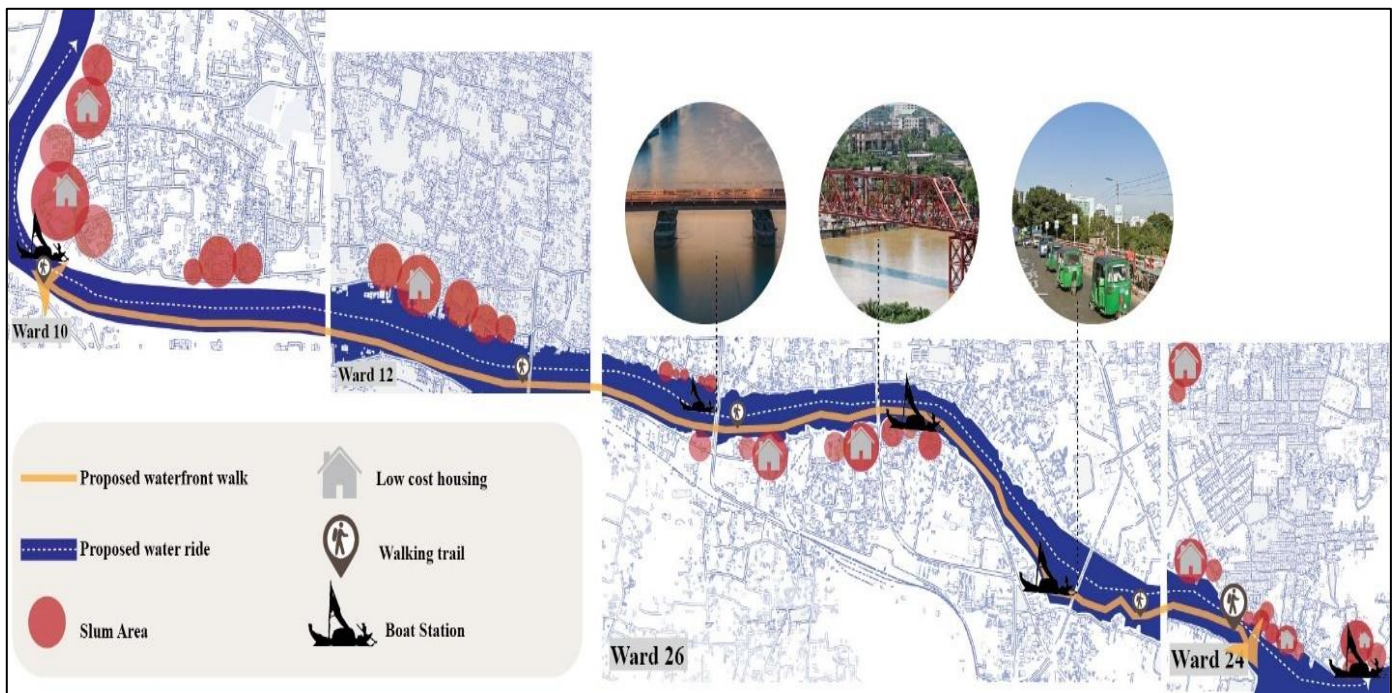


Fig 9 Framework. Source: Author.

This “win-win” model envisions slum residents as stewards of the waterfront—not liabilities. By aligning their improvement with the city's tourism and cultural goals, Sylhet can lead by example in resilient, inclusive, and heritage-driven urban development.

V. RECOMMENDATION

To ensure long-term sustainability and inclusivity of the riverfront development, it is essential to integrate the slum dwellers as active participants and beneficiaries of the transformation process. A key recommendation is to create structured employment opportunities for slum residents in the operation and maintenance of the revitalized Surma riverfront. Jobs such as boat drivers, gardeners, cleaners, security personnel, and operators of foldable food stalls or mobile kiosks can be designated specifically for them. This approach not only empowers the community economically but also cultivates a strong sense of ownership and stewardship over the public space. As slum dwellers become custodians of the riverfront, their presence is no longer viewed as encroachment but rather as a vital part of the city’s social and economic fabric. This inclusive model would uplift their living standards while simultaneously enhancing the image of

Sylhet as a culturally vibrant and tourist-friendly city. In this way, the riverfront becomes a shared urban asset—resilient, maintained by its own people, and reflective of Sylhet’s heritage and humanity.

VI. CONCLUSION

In conclusion, the chapter highlights the complex reality of informal settlements along the Surma River—spaces shaped by desperation, migration, and climate vulnerability, yet brimming with potential. The unchecked sprawl of slums, particularly due to recurrent flash floods in districts like Sunamganj, Habiganj, and Moulvibazar, reflects not just housing crises but systemic neglect. These settlements, often seen as encroachments, occupy a vital urban threshold—Sylhet’s riverfront, which holds immense cultural and touristic value, especially near iconic nodes like the Keane Bridge. Through a holistic lens, the chapter proposes not merely relocation or removal, but regeneration: transforming the slum belt into a participatory, resilient waterfront corridor that integrates slum dwellers as stakeholders.

By providing structured job opportunities—boat driving, riverfront cleaning, gardening, mobile vending,

and security—this framework instills stewardship among the informal communities while enhancing urban aesthetics and functionality. This approach not only reduces vulnerability to climate-induced disasters like flooding (as seen with 3–5 ft water level rises in 2020 and 2022) but also aligns with key Sustainable Development Goals (SDGs):

- SDG 6 (Clean Water and Sanitation) through improved drainage and sanitation infrastructure,
- SDG 11 (Sustainable Cities and Communities) via inclusive urban planning and participatory housing models,
- SDG 13 (Climate Action) by enhancing flood resilience and promoting sustainable river-edge development.

Ultimately, the vision set forth in this chapter champions a systemic shift: from crisis-driven responses to inclusive resilience planning. By using design as a tool for equity and empowerment, the Surma riverfront can evolve into a model for water-sensitive urban growth—where the most vulnerable are not displaced but become agents of transformation. This not only uplifts the image of Sylhet as a touristic and culturally rich city but also ensures that progress is rooted in social justice, ecological wisdom, and collective well-being.

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APPENDIX 1

➤ Susceptibility Parameters

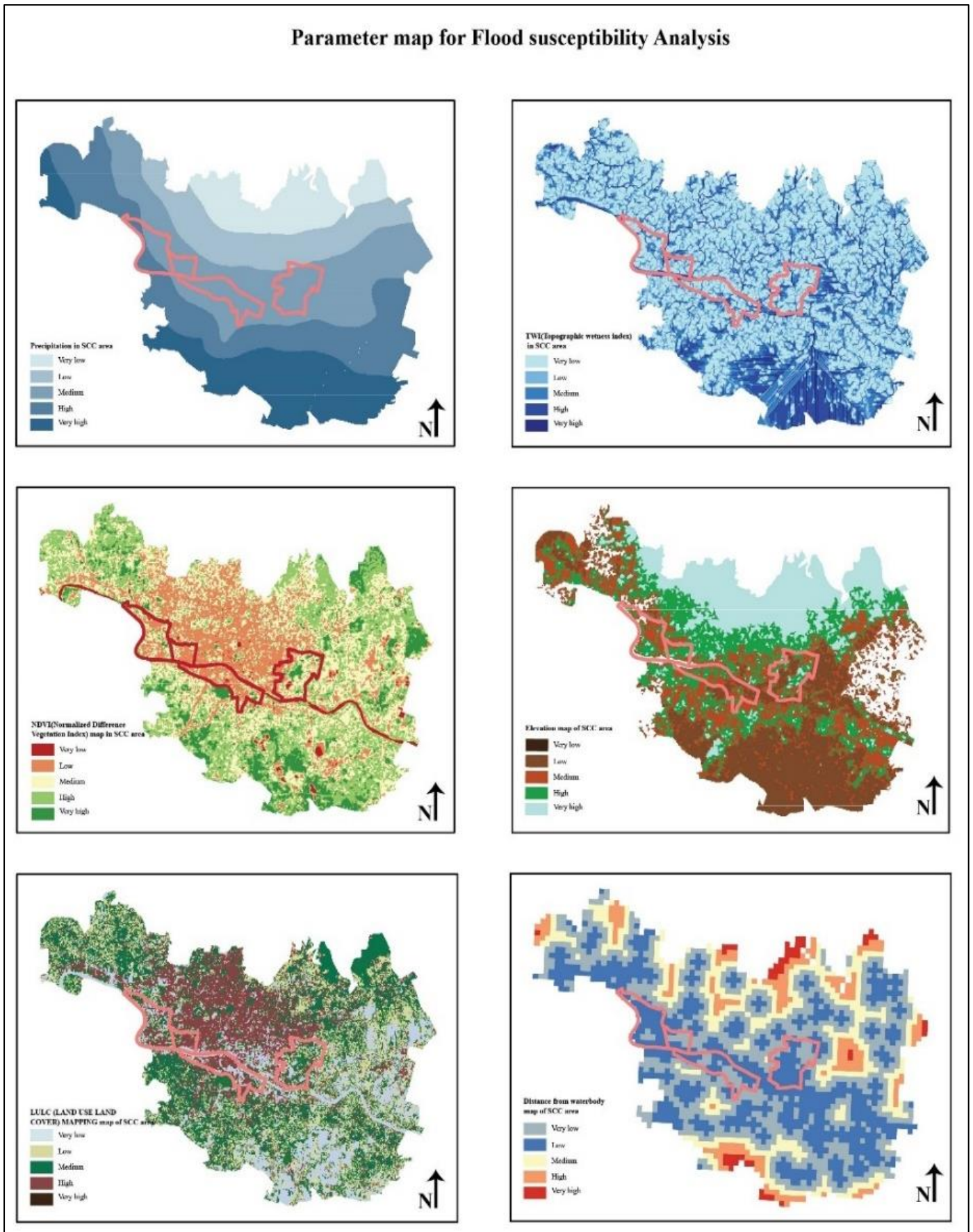


Fig 10 Susceptibility Parameters. Source: Author

APPENDIX 2

Questionnaire (Slum Dwellers at Flood-prone Areas in Sylhet)

➤ Section A: Background Info

- Age: _____
- Gender: Male Female Other
- Current Colony/Ward: _____
- How long have you lived here? _____
- Where did you migrate from? _____
- Why _____ did you migrate?
 Flood Job River erosion Family reason Other: _____

➤ Section B: Housing & Services

- Type of house: Thatched Tin-shed Semi-pucca
- Drinking water source: Tube well River/Canal Municipal
- Do you have access to:
 - ✓ Toilet Yes No
 - ✓ Electricity Yes No
 - ✓ Drainage Yes No

➤ Section C: Flood Experience

- How often does your area flood?
 Every year Sometimes Rarely
- Water level during flood:
1–2 ft 3–4 ft 5+ ft
- Problems during flood:
Water enters house Can't work Disease No toilet
- Any warning or help received during flood?
 Yes No

➤ Section D: Coping & Suggestions

- What do you do during flood?
 Raise things Move Nothing
- What support would help you most?
 Drainage Raised homes Clean water Emergency shelter
- Would you join a project to improve this area?
 Yes No