



Government of the people's Republic of Bangladesh
Ministry of Housing and Public Works
Urban Development Directorate
82 Segunbagicha, Dhaka-1000

PREPARATION OF DEVELOPMENT PLAN FOR MEHERPUR ZILA

REPORT ON ASSIGNMENT- 05

**Assist Urban Planner to Preparation of Action Area Plan Including Report
Elaborating All Containing Sectors and Extents**

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Table of Content

1	Situational Analysis	3
1.1.1	Major Road from Emotion Analysis of Ward 7.....	3
1.1.2	Internal Road Emotion Analysis of Ward 7.....	4
1.1.3	Emotional Distribution Heatmap of Ward 7	6
1.1.4	Distance-Based Emotion Distribution	7
1.1.5	Grid-wise Emotional Activity Analysis.....	7
1.1.6	Major Emotional Activity Grid Analysis.....	8
1.2	Key Recommendations from Emotional Analysis.....	11
2	Special Feature	11
3	Problem Identification.....	11
3.1	From PRA.....	11
3.2	From Emotional Analysis.....	12
4	Urban Void Identification	13
5	Development Possibilities	16
6	Action Plan	17
6.1	Community Facilities	17
6.2	Proposal of Roads and Drains	18
6.3	Red Lines – Roads and Drains with Major Problems:.....	18
6.4	Blue Lines – Waterlogging-Prone Areas:	19
6.5	Yellow Lines – Roads with Surface Deterioration:.....	19
6.6	Elevation Context:	19
6.7	Proposed Physical Interventions for Climate Resilience:	20
6.8	Others.....	20

Draft Ward Action Plan Report Outline

1 Situational Analysis

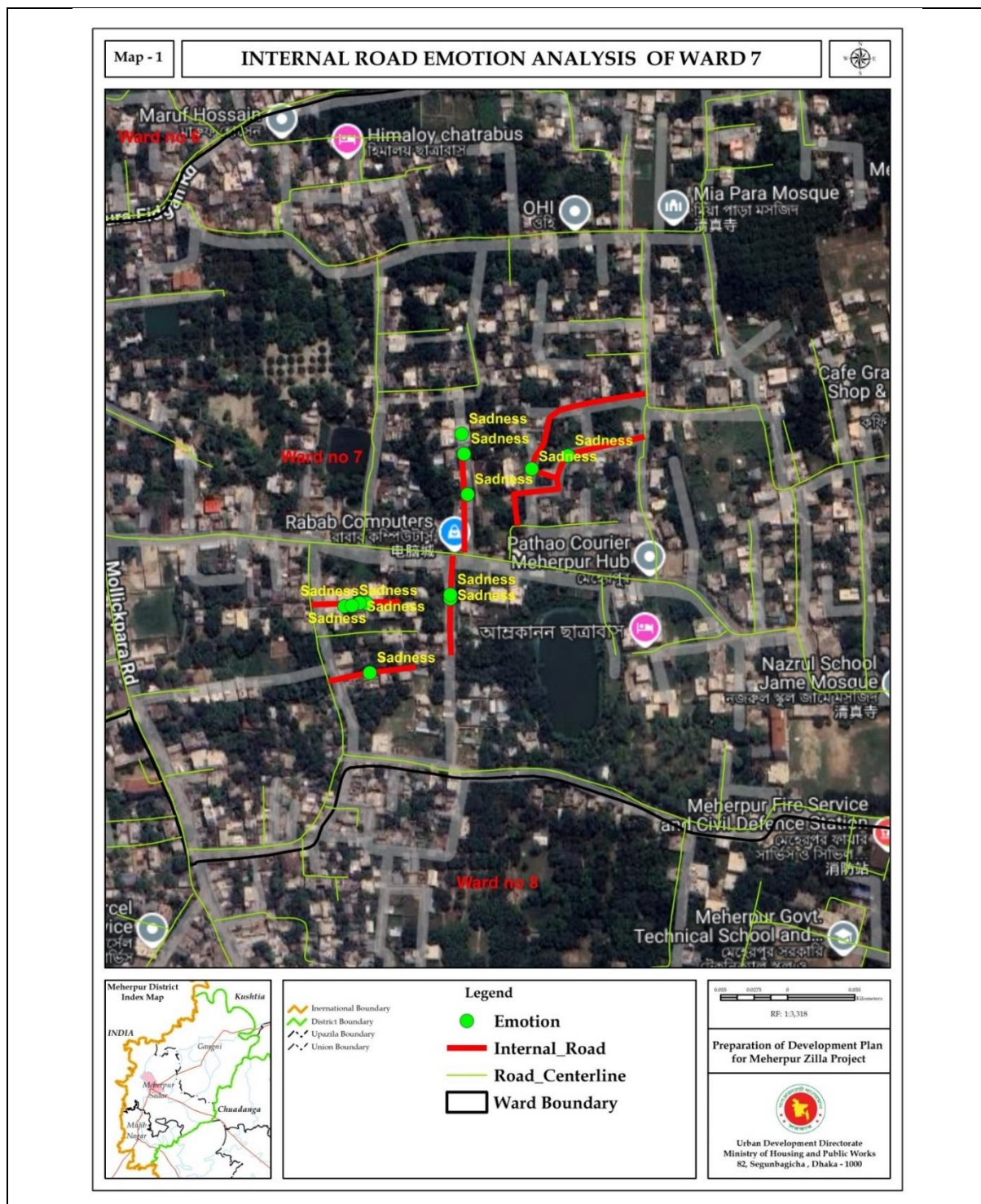
Community mental maps and emotion-based spatial feedback helped identify key zones of attachment, frustration, and aspiration. Locations like College Mor, Hotel Bazar Mor, and the Women’s College emerged as emotionally significant due to their roles as civic, educational, and social interaction hubs. Residents expressed strong positive emotions such as love and hope in these areas, indicating a deep sense of belonging.

Type	Number
Katcha	136
Pucca	1668
Semi pucca	1750
Steel	7
Tin shed	1872

However, emotional fatigue and distress were noted along internal road corridors, particularly near Rabab Computers and Pathao Courier. These locations were associated with sadness, likely due to poor drainage, unsafe pedestrian conditions, and lack of nighttime lighting. Emotional heatmaps also revealed a clear west-east divide: the western zone displayed higher concentrations of negative emotions such as fear, disgust, and frustration, while central and eastern areas associated with service institutions reflected more positive sentiment.

1.1.1 Major Road from Emotion Analysis of Ward 7

The major road network within Ward 7 registers a concentration of emotional responses, particularly near key nodes such as College Mor, Hotel Bazar Mor, the Fire Service Station, and the Women’s College. These areas generate emotions such as love, hope, and attachment, reflecting their importance to the community. However, issues like overcrowding, traffic congestion, and service gaps also lead to feelings of anger or frustration in certain segments.



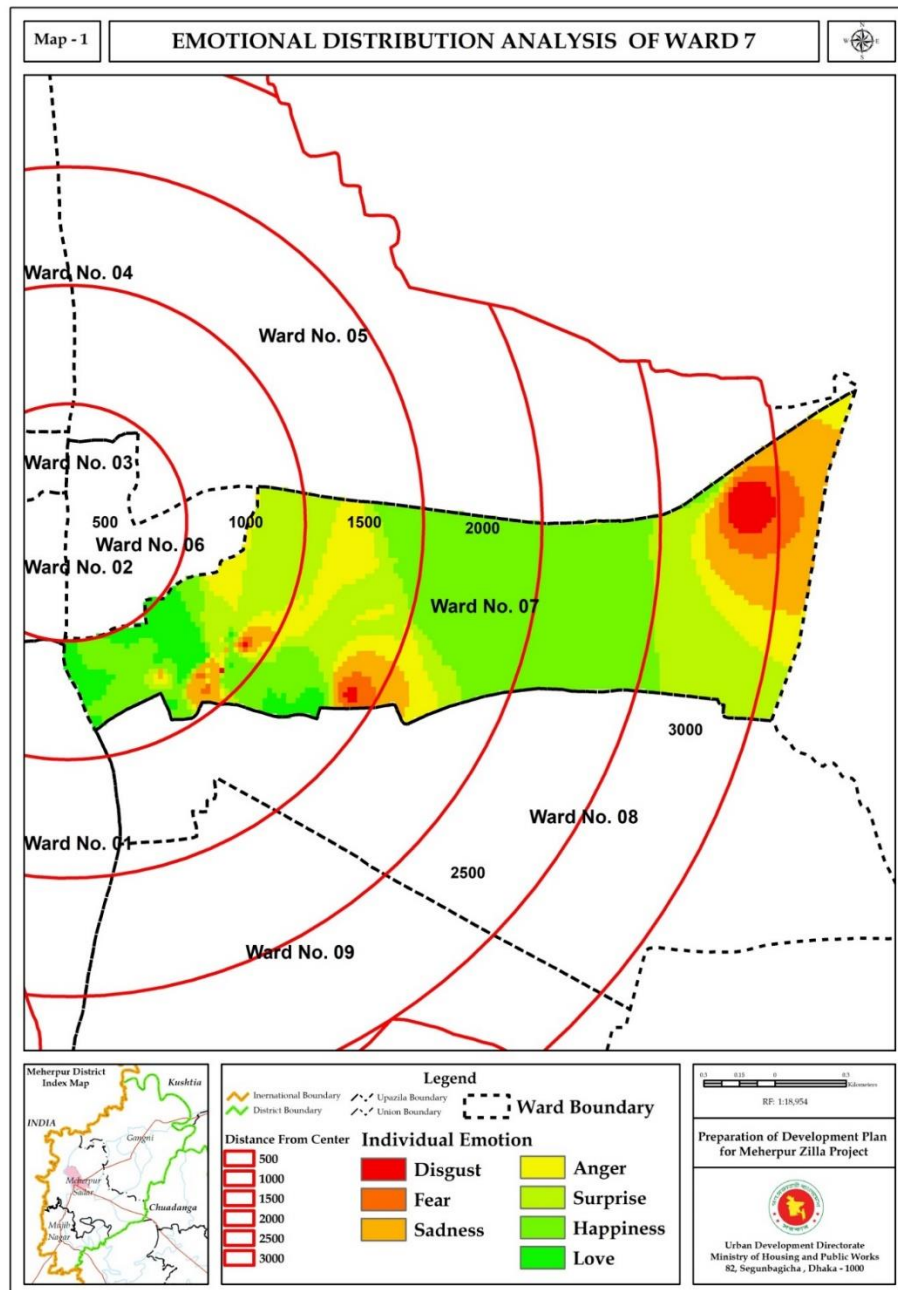
Source: Consultant MZDP, 2025

Planning Recommendations:

- Immediate repair and drainage upgrades in the identified sad zones.
- Improve nighttime lighting and design safe pedestrian corridors.
- Include gender-sensitive and child-friendly features along internal roads.

1.1.3 Emotional Distribution Heatmap of Ward 7

The western zone of the ward reveals a higher intensity of negative emotions (disgust, fear, sadness), shown in red and orange, while the central and eastern portions express more neutral to positive feelings, particularly in areas with service institutions.



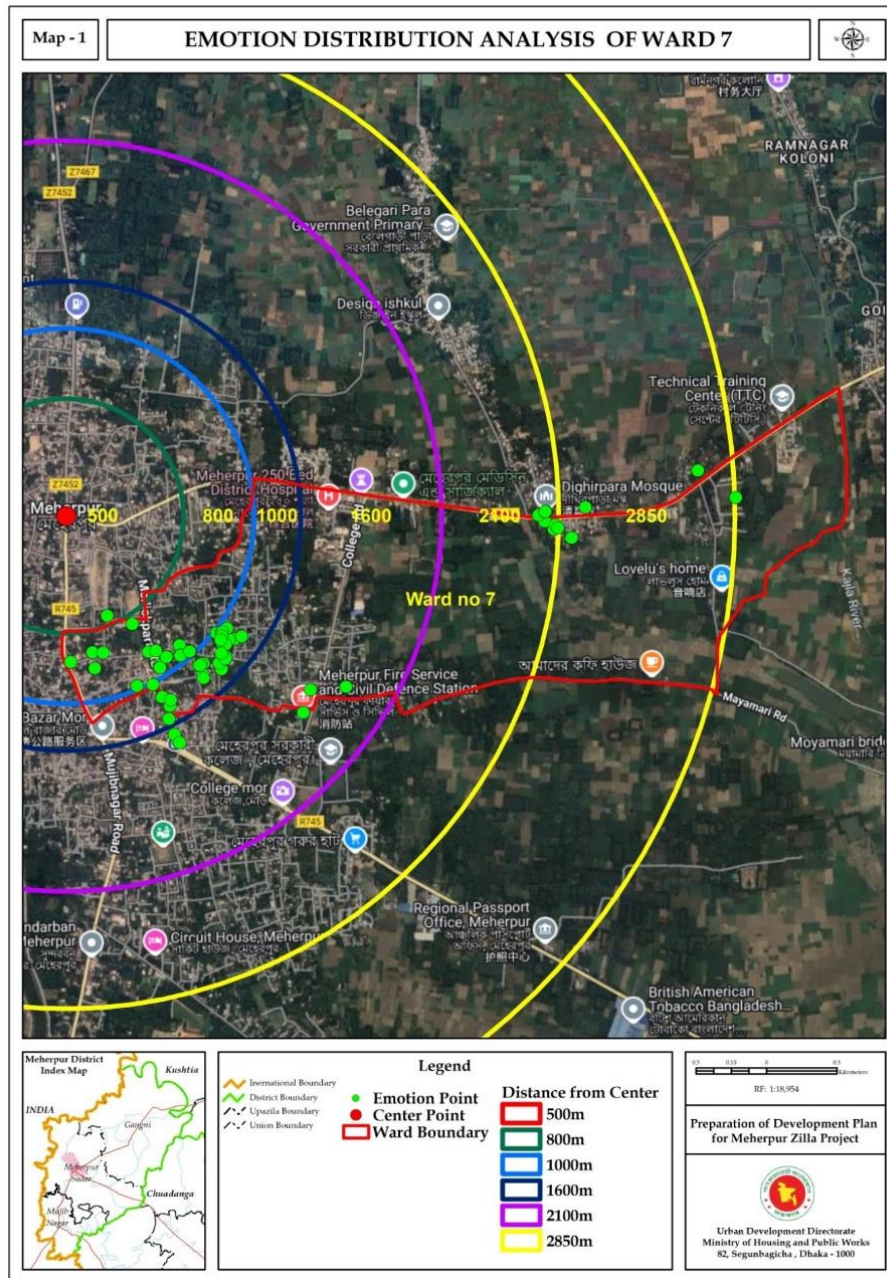
Source: Consultant MZDP, 2025

Planning Recommendations:

- Focus on the western segment for social infrastructure development (parks, seating, safety patrols).
- Replicate successful public design models from the eastern zone into under-served areas.
- Use emotional zoning to prioritize inclusive public investments.

1.1.4 Distance-Based Emotion Distribution

Buffer zones (500m–2850m) show that most emotional responses are concentrated within 1000 meters of the ward's key civic centers. Peripheral regions like Dighirpara and Mayamari show emotional activity but lack infrastructure.



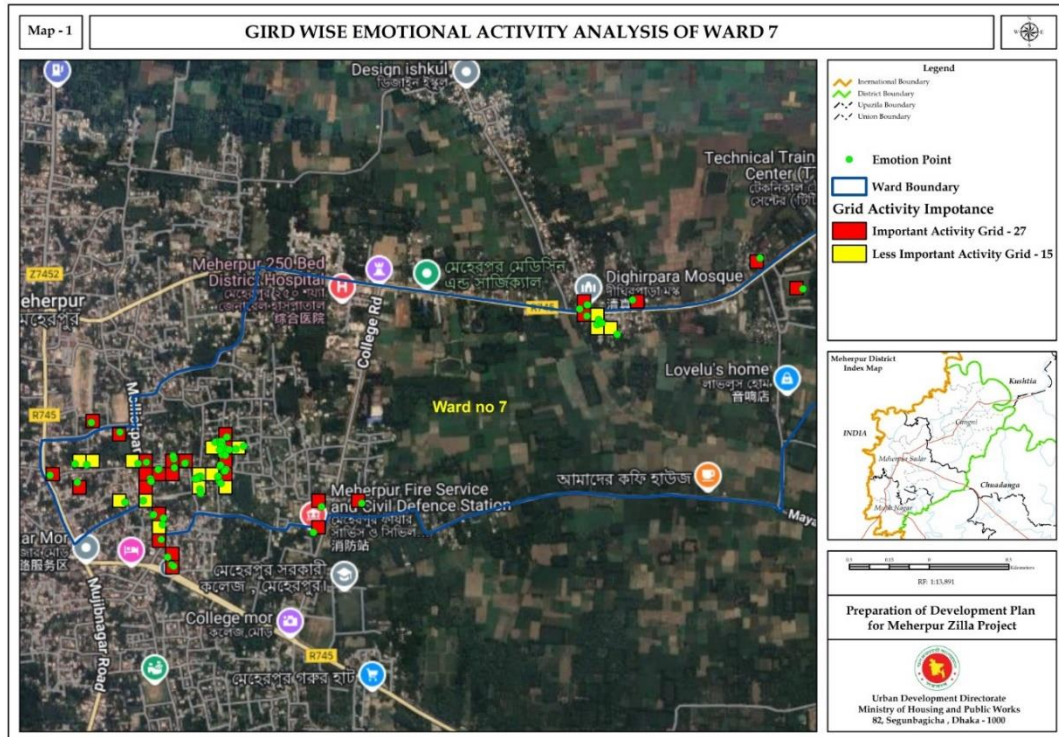
Source: Consultant MZDP, 2025

Planning Recommendations:

- Enhance mobility and access infrastructure toward peripheral emotion zones.
- Install community nodes (green spaces, benches, health kiosks) in outer areas.
- Design corridor-based development along key radial roads.

1.1.5 Grid-wise Emotional Activity Analysis

Out of the total analyzed grids, 27 were identified as important activity grids, while 15 were less active. Important grids include those with daily services, institutions, and civic interactions.



Source: Consultant MZDP, 2025

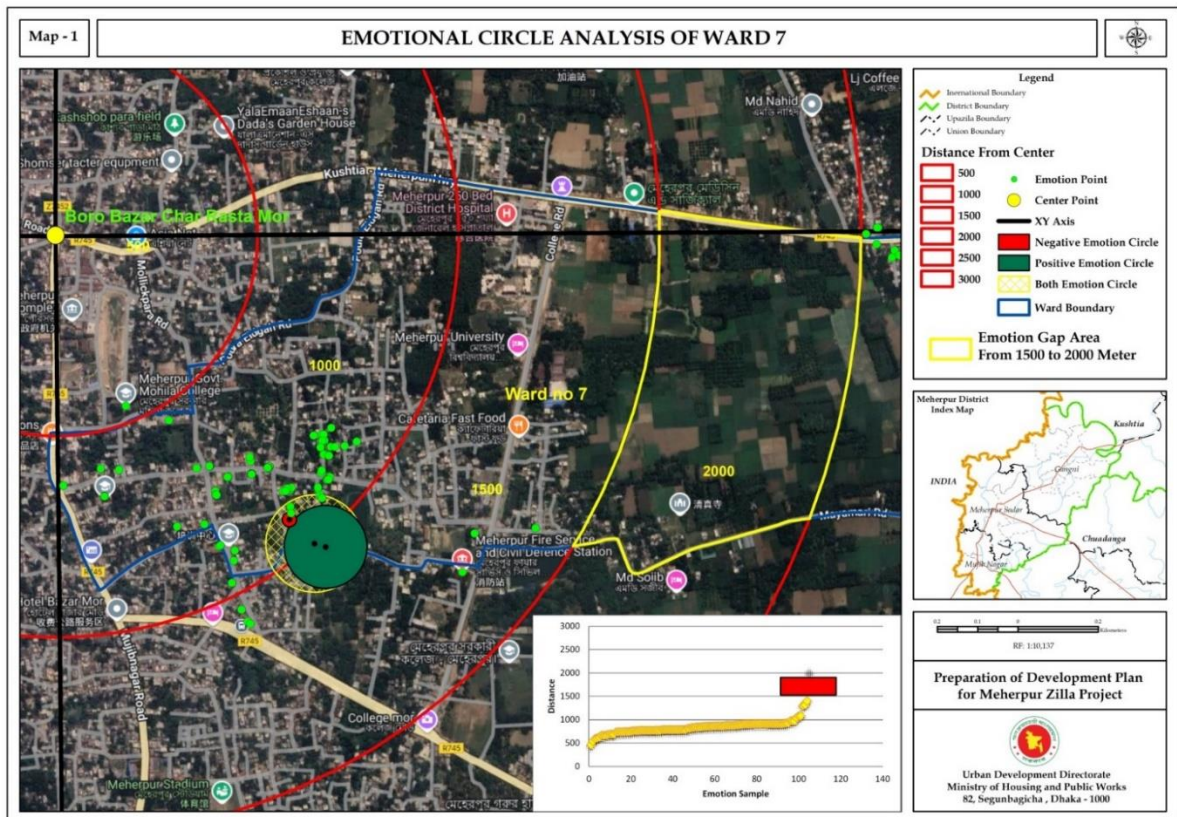
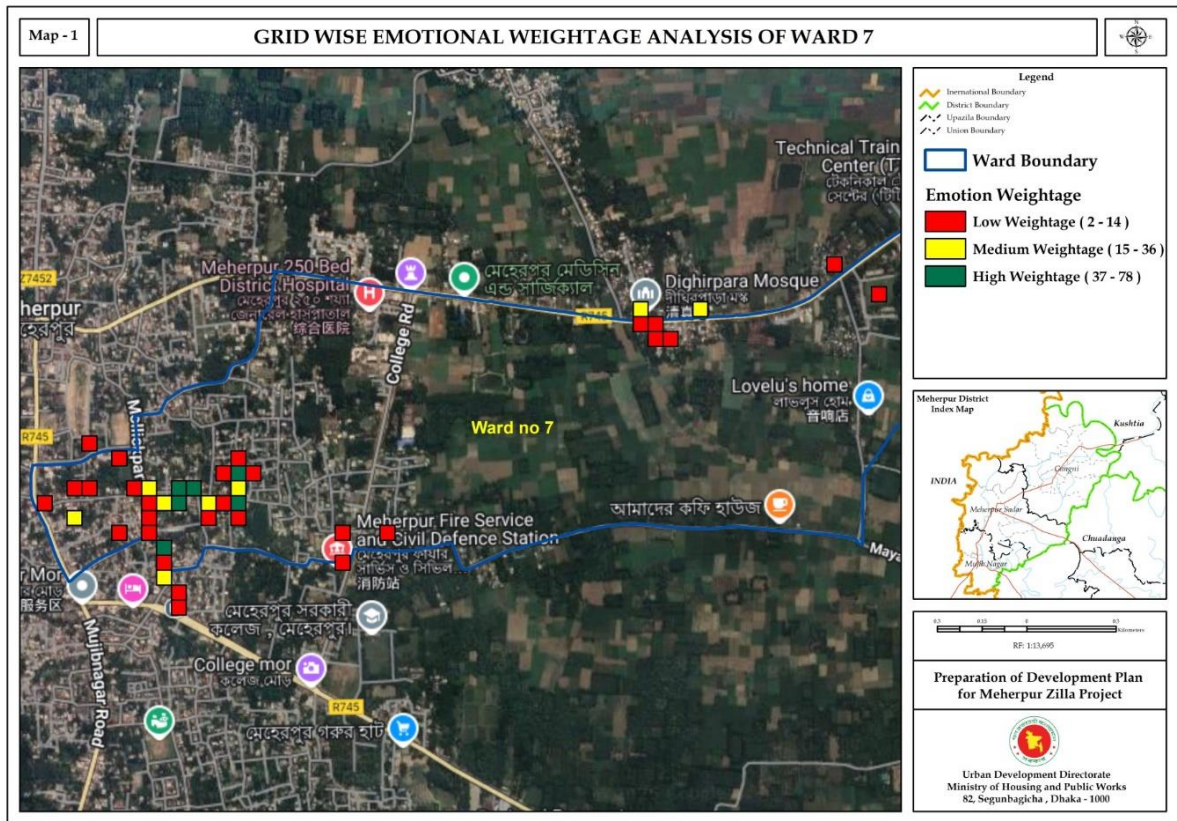
Planning Recommendations:

- Prioritize service delivery and safety infrastructure in high-activity grids.
- Activate low-engagement grids with cultural, social, or mobile facilities.
- Create micro-hubs for service decentralization in underutilized areas.

1.1.6 Major Emotional Activity Grid Analysis

Six grids were classified as major emotional anchors of Ward 7—these include key educational, administrative, and safety service areas. These locations are emotionally dense and socially active.

- Replicate similar multifunctional activity zones in other parts of the ward.



Source: Consultant MZDP, 2025

Planning Recommendations:

- Ensure long-term maintenance and safety standards in these locations.
- Preserve their emotional significance by integrating participatory public design.
- Replicate similar multifunctional activity zones in other parts of the ward.

7. Grid-wise Emotional Weightage Analysis

Grids were ranked based on emotion weightage:

- **High (Green):** Scores 37–78
- **Medium (Yellow):** 15–36
- **Low (Red):** 2–14

Planning Recommendations:

- In low-weightage grids: improve lighting, roads, drainage, and introduce recreational elements.
- In medium-weightage grids: add vegetation, informal seating, and social landmarks.
- In high-weightage zones: maintain quality, encourage community-led care and programming.

1.2 Key Recommendations from Emotional Analysis

- Improve lighting and pedestrian infrastructure in emotionally distressed road segments.
- Develop shaded walkways and resting areas near emotionally significant intersections.
- Establish social infrastructure and safety features in high-distress grids.
- Activate low-emotion zones with cultural events, green areas, or pop-up public services.

2 Special Feature

3 Problem Identification

3.1 From PRA

The following problems were identified through Participatory Rural Appraisal (PRA) sessions with Ward 7 residents, where community members mapped out their daily challenges and prioritized key infrastructural and service gaps. These issues reflect ground-level perceptions of drainage, road conditions, waste management, public services, and overall urban livability concerns within the ward.

Problem Area	Description	Implication
1. Drainage Problem	Several zones within Ward 7 face drainage blockages and poor stormwater runoff, particularly in low-lying areas.	Causes frequent waterlogging during monsoon, impacting mobility and public health.
2. Road Reconstruction Needs	Internal roads, especially in dense residential clusters, are damaged and require resurfacing and repairs.	Limits safe pedestrian and vehicular movement, exacerbating transport inefficiency and safety risks.
3. Lack of Recreational Facilities	There is no designated recreational space or park within Ward 7.	Affects community well-being, particularly for children, elderly, and promotes urban heat stress.

4. Insufficient Dustbin Coverage	Open dumping and lack of formal dustbin placements are evident across several neighborhoods.	Leads to unhygienic waste disposal, local environmental pollution, and visual blight.
5. Poor Medical Access (Ramesh Clinic area)	Inadequate healthcare access and poor road-drain connectivity near the Ramesh Clinic area.	Hampers emergency service access and creates health risks for residents due to poor sanitation.
6. Inaccessible Internal Roads (Kabi Nazrul Road area)	Roads near Kabi Nazrul Road are narrow and lack proper drainage systems, making them unusable in monsoon.	Restricts internal mobility, increases localized flooding risks, and isolates parts of the community.
7. Lack of Public Library Facilities	No library or community learning spaces are present in the ward.	Limits educational and skill-building opportunities, especially for youth and students.
8. Water Supply Problems	Several households face irregularities in supply water access, particularly in peripheral settlements.	Impacts daily household needs, forces reliance on unsafe alternative water sources, and increases hardship.

3.2 From Emotional Analysis

The following Problem and Recommendation Matrix has been developed based on the Emotional Mapping and Participatory Analysis of Ward No. 07, Meherpur Municipality. Through community engagement, emotional response surveys, and grid-based spatial assessments, key problem zones were identified where residents experience emotional stress, service gaps, and infrastructural deficiencies. This matrix aligns those problem areas with targeted, actionable planning interventions aimed at enhancing the ward's livability, accessibility, and emotional well-being. The recommendations emphasize community-centered urban improvements that address physical vulnerabilities while fostering a more inclusive and resilient built environment

Identified Problem Area	Planning Recommendations
Overcrowding and Traffic Congestion at Key Nodes	<ul style="list-style-type: none"> - Develop shaded footpaths and resting areas near major intersections. - Improve traffic flow with signage, safe crossings, and traffic control measures. - Introduce green buffers and social seating spaces to reduce emotional fatigue.
Poor Internal Road Conditions	<ul style="list-style-type: none"> - Immediate repair of damaged roads and drainage upgrades in identified "Sadness" zones. - Install street lighting to improve nighttime safety. - Design safe, gender-sensitive pedestrian corridors with child-friendly features.
Western Zone Emotional Distress (Fear, Sadness, Disgust)	<ul style="list-style-type: none"> - Develop social infrastructure like parks, seating areas, and safety patrols in western parts. - Prioritize inclusive public investment in emotionally neglected grids.
Peripheral Areas Lacking Infrastructure	<ul style="list-style-type: none"> - Improve road connectivity and mobility infrastructure in peripheral zones. - Establish community nodes (benches, green spaces, health kiosks) in outer areas. - Design corridor-based development along key radial roads.

Service Imbalance in Grid-wise Activity Zones	<ul style="list-style-type: none"> - Enhance service delivery infrastructure (lighting, safety measures) in high-activity grids. - Activate low-engagement grids with cultural, social, or mobile service facilities. - Decentralize services through creation of micro-hubs.
Maintenance Gaps in Emotional Anchor Grids	<ul style="list-style-type: none"> - Ensure regular maintenance and safety enhancements in key emotional grids. - Preserve emotional significance through participatory public design. - Replicate multifunctional activity zones in under-served areas.
Emotional Weightage Imbalance Across Grids	<ul style="list-style-type: none"> - For low-weightage grids: upgrade lighting, roads, drainage, and add recreational features. - For medium-weightage grids: increase greenery, informal seating, and community landmarks. - For high-weightage grids: maintain quality and promote community-led care initiatives.

4 Urban Void Identification

In the emotional analysis of **Meherpur Municipality Ward No. 7**, spatial data was collected to identify locations associated with both positive and negative emotional experiences. Each emotional response was mapped and measured based on the average distance from the respondent's location to the point of activity. From this data, two distinct emotional zones were generated:

- The **Positive Emotion Circle** was constructed using the average distance of locations where respondents expressed positive emotions such as happiness, love, and surprise.
- The **Negative Emotion Circle** was drawn based on the average distance to locations associated with negative emotions, including fear, sadness, anger, and disgust.

These circles represent the zones of emotional influence, highlighting the spatial extent of emotional activity for both positive and negative experiences. Subsequently, these two circles were overlaid to create a **Combined Emotional Influence Zone**, which captures the broader emotional footprint of the ward.

Through this mapping process, certain parts of the ward were identified as falling **outside both emotional circles**, indicating areas where no significant emotional activity was recorded. These zones are referred to as **Emotional Gap Areas**. The absence of emotional engagement in these spaces suggests a lack of recreational, social, or meaningful interaction points for the community.

To address this, these Emotional Gap Areas have been proposed as potential sites for **Urban Void Development**. Strategically transforming these underutilized or emotionally neutral spaces into vibrant, inclusive urban areas—such as community parks, green pockets, tea stalls, child play zones, or interactive public spaces—can foster emotional engagement and well-being. Such interventions not only revitalize neglected zones but also contribute to a more emotionally balanced and livable urban environment.

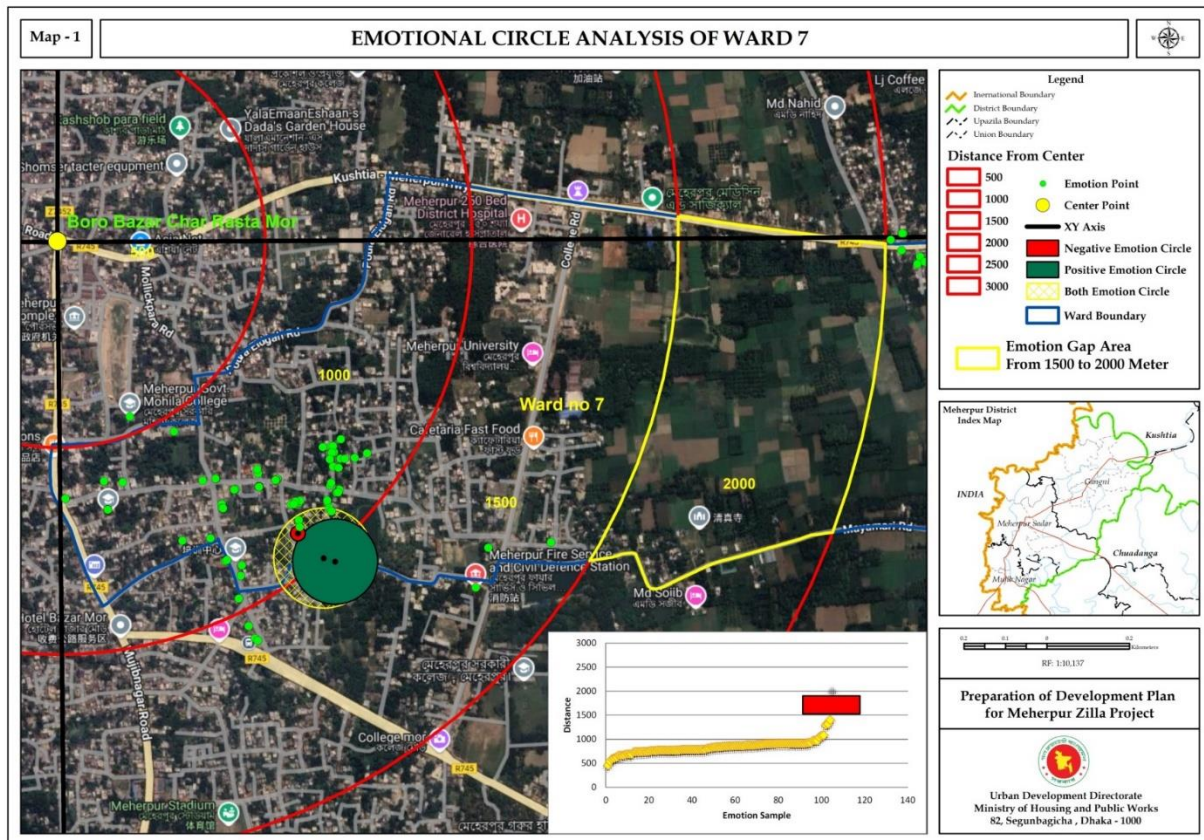
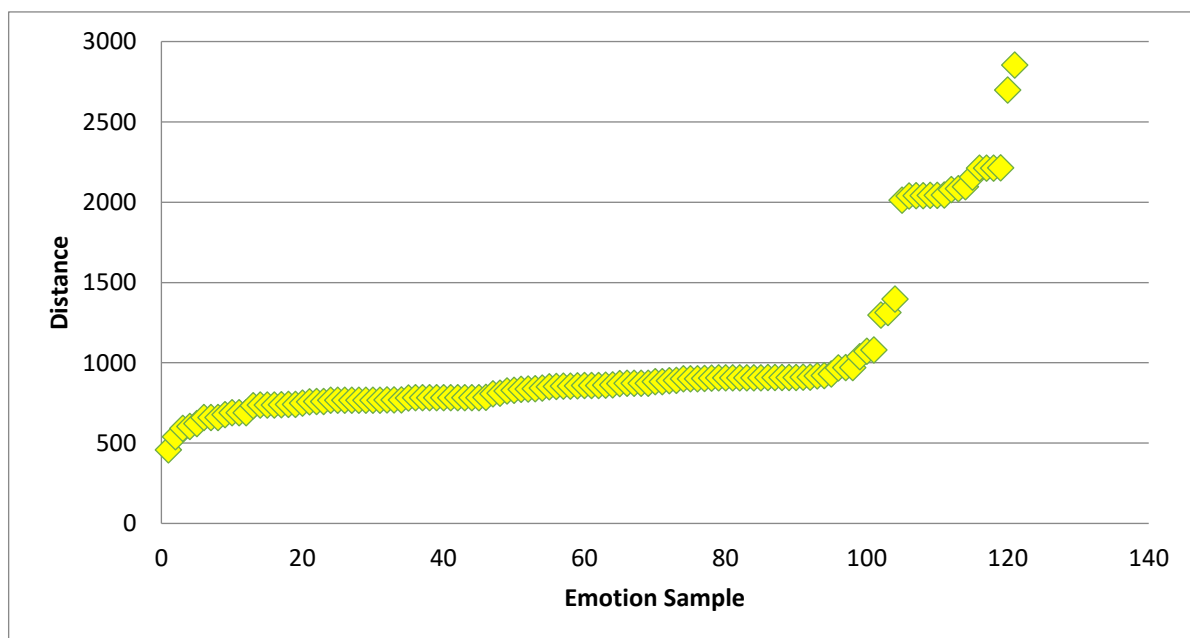
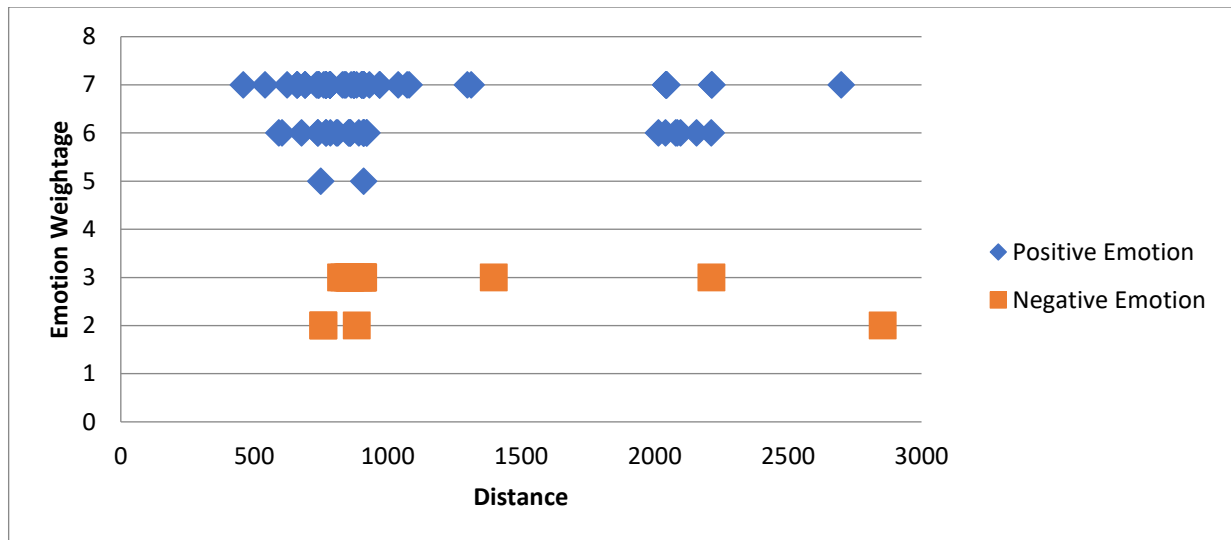


Figure 12: Emotional Circle Analysis of Ward 7



The Distance vs. Emotional Sample chart illustrates the spatial distribution of emotional data points. Analysis of the chart reveals noticeable gaps in emotional sample density, particularly between the distances of 1500 to 2000 meters and 2300 to 2600 meters. These identified gaps indicate areas lacking emotional activity, which can be interpreted as potential urban voids. Such areas may be considered for targeted interventions or redevelopment to enhance urban livability and engagement.



The chart titled Emotional Weightage vs. Distance illustrates the distribution of both positive and negative emotions in relation to their distance from the central reference point, along with their corresponding weightage. In this chart, blue represents positive emotions and brown represents negative emotions. The visualization effectively demonstrates how emotional intensity—both positive and negative—varies with distance, providing insights into spatial emotional patterns within the study area.

5 Development Possibilities

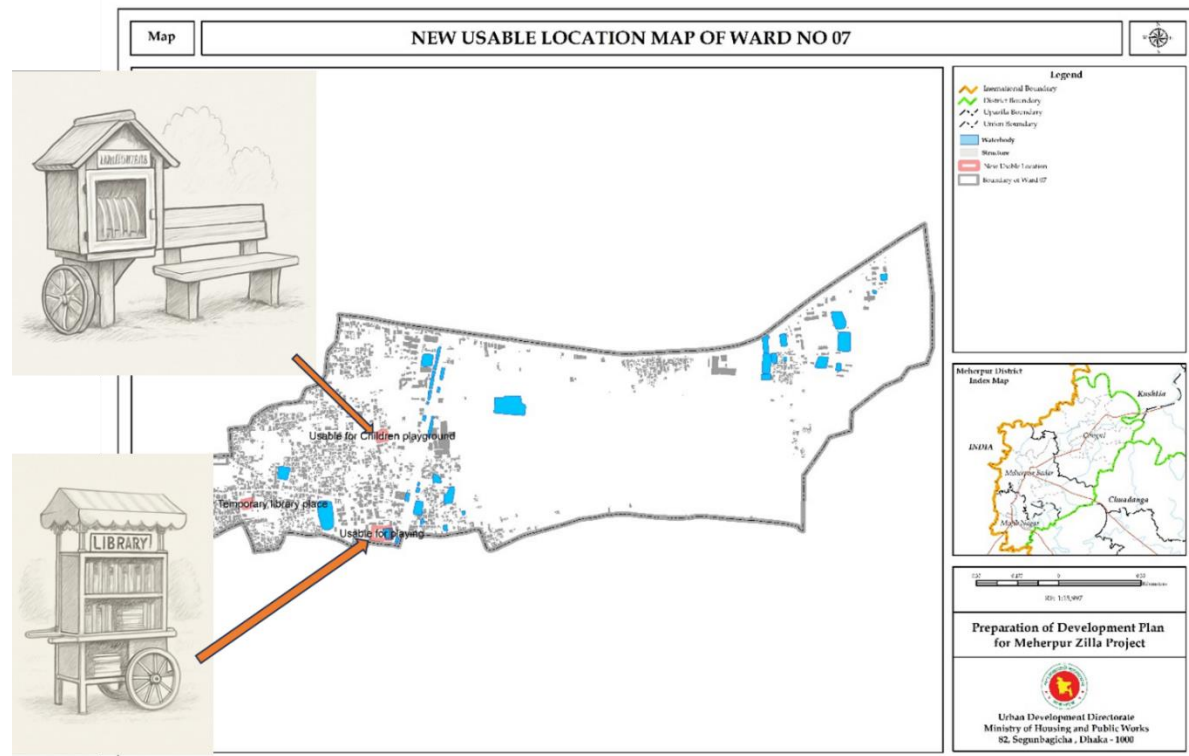
Based on the comprehensive situational assessment, emotional mapping analysis, and community feedback, several development possibilities have been identified for Ward No. 07 under the Meherpur Municipality. The following table summarizes the key development domains and corresponding interventions that will shape the **Action Plan**. These possibilities address critical infrastructure gaps, service deficiencies, social well-being, and future urban expansion needs of the ward.

Table: Development Possibilities of Ward No. 07

Development Area	Strategic Interventions & Possibilities
Infrastructure & Mobility Improvement	<ul style="list-style-type: none">- Reconstruct internal damaged roads with resilient materials (RCC/interlocking).- Elevation-based drainage upgrades.- Extend road networks to peripheral zones (Dighirpara, Mayamari).
Community Facilities & Social Infrastructure	<ul style="list-style-type: none">- Establish micro-parks and green pockets in urban voids.- Set up a public library & ICT-based learning hub.- Deploy health kiosks in underserved clusters.
Economic Empowerment & Skill Development	<ul style="list-style-type: none">- Expand vocational training through ICT centers.- Designate vending zones and small business hubs for informal sector support.
Inclusive Urban Design & Emotional Spaces	<ul style="list-style-type: none">- Activate low-emotion grids with greenery, seating, and placemaking initiatives.- Beautify high-emotion nodes (College Mor, Hotel Bazar Mor).- Implement participatory public space design.
Land-use Optimization & Urban Expansion	<ul style="list-style-type: none">- Phase-wise conversion of low-productive agricultural land into mixed-use zones.- Reallocate land for parks, public services, and recreational zones.- Reserve high-liquefaction areas for open/public spaces.
Emotional Gap Area Redevelopment	<ul style="list-style-type: none">- Transform emotionally inactive zones into community parks, tea stalls, child play areas.- Develop buffer zone amenities (benches, green spots) within 1500m–2600m periphery.

6 Action Plan

6.1 Community Facilities



Source: Consultant MZDP, 2025

This map highlights new usable spaces in Ward 7 marked in blue, showing areas that could be used for specific purposes, such as children's playgrounds, temporary library spaces, and playgrounds. These locations are mapped across the ward, providing opportunities for community infrastructure to enhance public spaces for different age groups.

Relevance for the Action Plan:

- Leverage these blue-marked locations for new community parks and public amenities.
- Promote inclusive, community-driven spaces in these areas, addressing the need for more green and social spaces.
- Public engagement can help identify additional user needs for these areas.

Concept	Design Idea	Benefits
Mobile Libraries	Use small, movable "Little Free Libraries" or upcycled furniture in public spaces.	Promotes reading in open spaces and encourages community participation.
Upcycled Furniture Libraries	Transform old items (e.g., fridges, armoires) into quirky library spaces with artistic designs.	Eco-friendly, cost-effective, and adds a unique touch to public spaces.
Interactive Public Library Shelves	Set up shelves for borrowing and donating books, themed by community interests.	Fosters shared responsibility and reading engagement across diverse groups.
Pop-up Libraries	Use modular units that can be relocated for events or festivals.	Flexible and adaptable to community needs and different locations.

Seed Exchange / Community Garden Kiosk	Add seed packets and gardening tips inside the library boxes.	Encourages sustainability and home gardening.
Interactive Learning or Educational Space	Provide flyers, tutorials, or skill-sharing materials.	Makes learning accessible and fosters community development.
Games and Recreational Area	Store portable games and create small seating areas.	Provides recreational activities for all ages, fostering social interaction.
Wellness and Relaxation Space	Add seating, plants, or water features for relaxation.	Enhances mental well-being and offers a break in busy environments.
Public Performance or Storytelling Corner	Set up small performance areas for local talent and storytelling.	Supports local talent, creating a cultural hub for the community.
Health Awareness & Public Services	Provide pamphlets or hold health workshops inside the space.	Raises health awareness and provides access to vital health information.
Tech & Digital Access Hub	Set up charging stations or offer public Wi-Fi access.	Provides digital inclusion and tech support for the community.

6.2 Proposal of Roads and Drains

The drainage infrastructure in Ward No. 07 consists of a combination of covered and uncovered drain segments. According to recent physical assessments, the ward has a total of **5.98 km** of covered drains and **2.21 km** of uncovered open drains.

The presence of a significant **uncovered drainage network (approximately 27% of the total drainage length)** poses multiple challenges, including exposure to waste dumping, siltation, and health hazards due to stagnant water during the monsoon. The covered drain segments, although functional, require regular maintenance to prevent blockages caused by solid waste accumulation and insufficient slope gradients in certain low-lying areas.

The lack of complete coverage in drainage lines, especially in densely populated neighborhoods, contributes to localized waterlogging and deteriorates the overall sanitary environment. Thus, upgrading the existing open drains into a fully covered and elevation-sensitive drainage system is a crucial priority for ensuring effective stormwater management and improving public health conditions within Ward 7.

Type	Length (km)
Coverd	5.98
Uncovered	2.21

Source: Physical Feature Survey 2025

The infrastructure condition map of Ward 7 reveals significant physical challenges, particularly in relation to road quality, drainage system efficiency, and waterlogging risks. These risks are further complicated by the ward's elevation variations (ranging from approximately 12.3 to 15.7 meters).

6.3 Red Lines – Roads and Drains with Major Problems:

- These segments indicate areas where both road surface conditions and adjacent drainage infrastructure are compromised.
- Concentrated in central and northeast parts of the ward.
- These areas lie within 13.0–13.7-meter elevation, suggesting a relatively low gradient contributing to poor runoff.

Planning Recommendations:

- Reconstruct damaged roads with climate-resilient surfacing (e.g., concrete with slope).
- Upgrade drainage lines to handle heavy rain, especially in flat zones.
- Introduce regular drain maintenance schedules and enforce solid waste control.

6.4 Blue Lines – Waterlogging-Prone Areas:

- Historically reported water accumulation during rains, especially near 13.0–13.4m elevation.
- Likely due to inadequate drain slope, silted lines, or downstream blockage.

Planning Recommendations:

- Immediate cleaning and desilting of drains in blue-marked areas.
- Elevation-based hydraulic redesign of existing drains.
- Construct roadside soak pits or percolation wells.

6.5 Yellow Lines – Roads with Surface Deterioration:

- These roads face wear and usability issues such as potholes and broken surfacing.
- Located in southern and southeastern pockets, even in higher elevation areas (~14.5–14.9m).

Planning Recommendations:

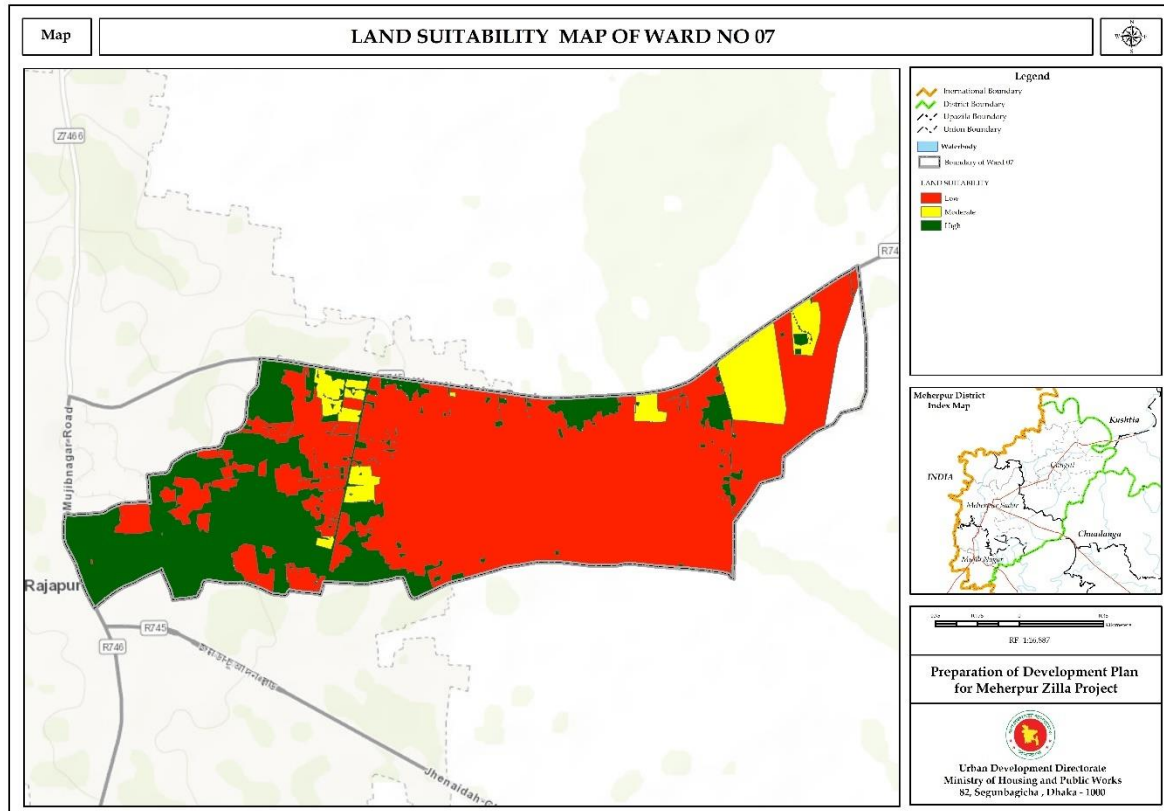
- Repair road surfaces using long-lasting materials (e.g., RCC, interlocking blocks).
- Add gender-inclusive and elderly-friendly design (e.g., tactile paths, ramps).
- Develop shaded, walkable green corridors.

6.6 Elevation Context:

- Elevation ranges from ~12.3m to ~15.7m.
- Low-lying northeast and central regions (12.3–13.5m) are prone to stagnation.
- Southern and western regions (>14.5m) have better drainage.

Planning Recommendations:

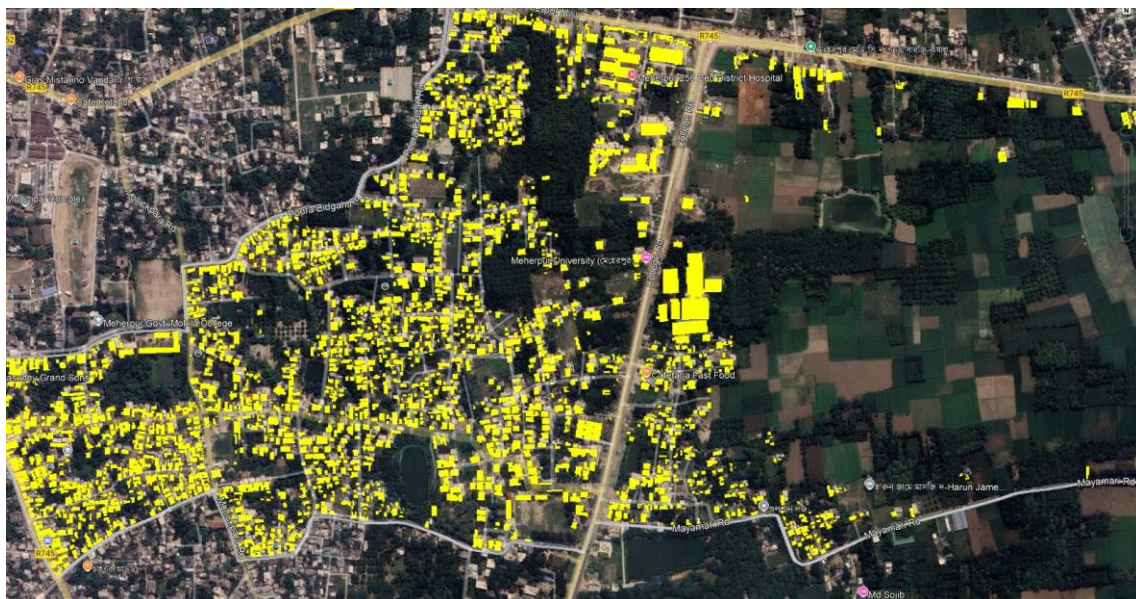
- Use elevation maps for zoning and drainage planning.
- Avoid construction or elevate structures in low-lying zones.
- Promote rainwater harvesting and infiltration systems.



Source: Consultant MZDP, 2025

Relevance for the Action Plan:

- Focus development in high-suitability areas while ensuring flood-resilience measures are incorporated into low-suitability zones.
- Priority for eco-friendly and climate-resilient infrastructure in medium-suitability zones.
- Land use zoning will need to consider suitability, such as residential or commercial use.



This image shows the spatial distribution of settlements within Ward 7, highlighted in yellow. These marked areas indicate existing residential clusters and building structures within the ward. This map provides insights into urban density and settlement patterns, showing the concentration of

developments near key civic institutions such as Meherpur Government College, Meherpur University, and areas along major roads like College Road and Mayamari Road.

Relevance for the Action Plan:

- Identifying high-density areas helps prioritize infrastructure development, especially for services and utilities.
- Ensures that green spaces, playgrounds, and public amenities are provided in settlement zones.