



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 ZILLA

REPORT ON ASSIGNMENT-9

**A Report of Spatial Transformation of Socio-Economic survey output such as
Spatial Transformation comparison between Socio-economic and Public
Participation of Meherpur Pourashava**

June 2025

Rakibul Hasan
Junior Urban Planner

Emotional Dynamics of Meherpur Pourashava Ward No. 8

The emotional dynamics of Ward No. 8 in Meherpur Pourashava reflect a diverse and complex spatial pattern of how residents emotionally perceive their everyday surroundings. Based on weighted emotional data—ranging from Disgust (1) to Love (7)—the ward displays both positive and negative emotional responses across different spatial intervals.

Ward No. 8 hosts several important civic, educational, and recreational facilities including Meherpur Government College, Technical School, Fire Service Station, Nazrul School, Shishu Park, Hotel and Bazaar area, College Para (residential zone), as well as offices like the Department of Social Services and the Women's Affairs Office. These diverse urban elements significantly shape residents' emotional experiences in the area.

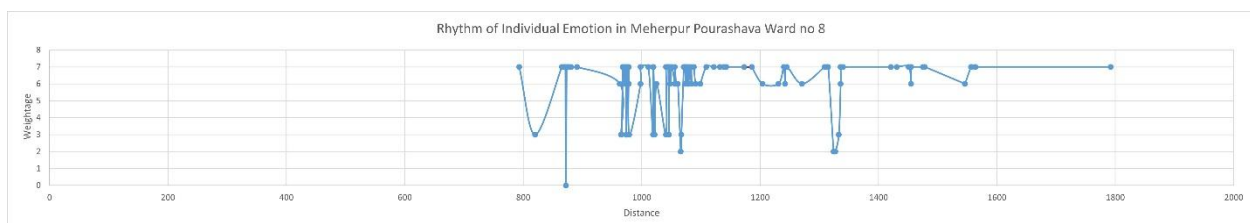
The variation in emotional responses is closely tied to the function and usage of each space:

- Educational institutions stimulate feelings of aspiration, hope, and sometimes stress due to academic pressure.
- Service facilities like the fire station and government offices evoke trust and security, or frustration when access is limited.
- Recreational areas, particularly the Shishu Park, are associated with joy, surprise, and family bonding.
- Market and hotel zones generate excitement due to social and economic activity, but may also lead to discomfort because of crowding or noise.
- Residential neighborhoods often foster a sense of comfort and belonging, yet may reflect sadness if facilities are lacking.

Altogether, these variations form a nuanced emotional landscape of Ward No. 8—offering insights that are essential for inclusive and emotion-sensitive urban planning.

Analysis of Individual Emotion:

This study analyzes emotional perceptions of Meherpur city using 142 data points collected from local residents. Participants identified locations related to their daily activities and assigned emotions to each place (Disgust, Fear, Sadness, Anger, Surprise, Happiness, Love), which were weighted on a 1–7 scale.



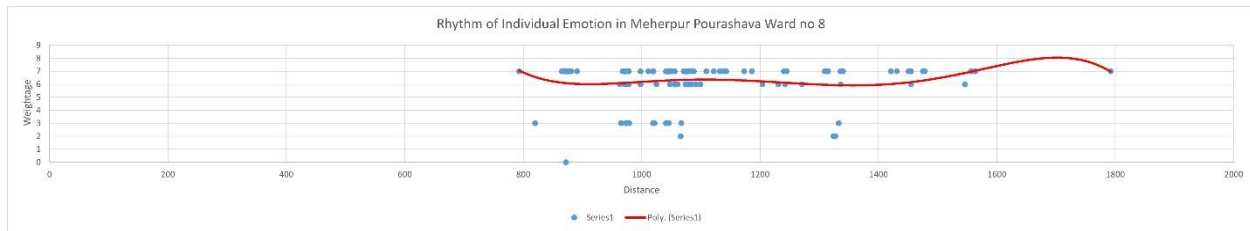


Figure: Rhythm of individual Emotion in Meherpur Pourashava Ward no 08

The emotional rhythm graphs for Meherpur Pourashava Ward No. 8 illustrate how residents' emotional responses (weighted from 1 = Disgust to 7 = Love) vary spatially across the ward.

First Chart: Displays raw emotional fluctuations along the distance axis. A noticeable variability is observed, especially between distances 750–1300 meters, where emotions oscillate sharply, suggesting mixed feelings across clustered zones (possibly due to functional diversity or social perception variations).

Second Chart: Uses a polynomial trendline to smooth out these variations, revealing a general pattern. The trend indicates an initial decline in emotional positivity, followed by relative stability, and then a gradual improvement towards the later part of the distance scale (1600–1800m), possibly reflecting transitions from congested to more favorable urban environments.

Male Emotion Analysis

The graphs illustrate male emotional weightage across distances in Meherpur Pourashava Ward No. 8. The first graph reveals several sharp emotional drops around 950–1100 meters, possibly indicating areas with negative experiences or less favorable urban conditions. Beyond 1100 meters, the emotional response stabilizes. The second graph, with a polynomial trendline, shows a gentle U-shaped pattern suggesting a slight dip in emotional weightage in mid-range distances followed by a modest recovery. This pattern may reflect transitional spaces such as congested roads or service gaps followed by access to more favorable amenities or open spaces.

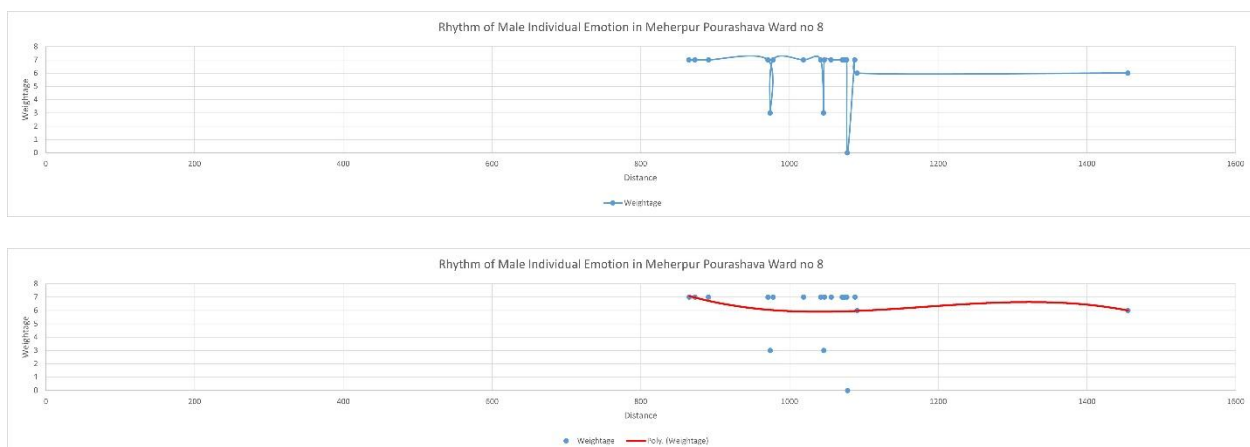


Figure: Rhythm of Male individual Emotion in Meherpur Pourashava Ward no 08

Female Emotion Analysis:

The two graphs illustrate the emotional variation of women across different distances within Meherpur Pourashava Ward No. 8. The first graph shows fluctuations in emotional weightage, with several sharp drops and rises, indicating a dynamic emotional landscape likely influenced by specific urban elements (e.g., clinics, schools, roads). The second graph adds a polynomial trendline, revealing a relatively stable but slightly upward trend in emotional responses over distance. This suggests a gradual improvement or stabilization of emotional states toward the periphery of the ward. The presence of consistent emotional values between 900–1600 meters may correspond with emotionally significant public facilities and services.

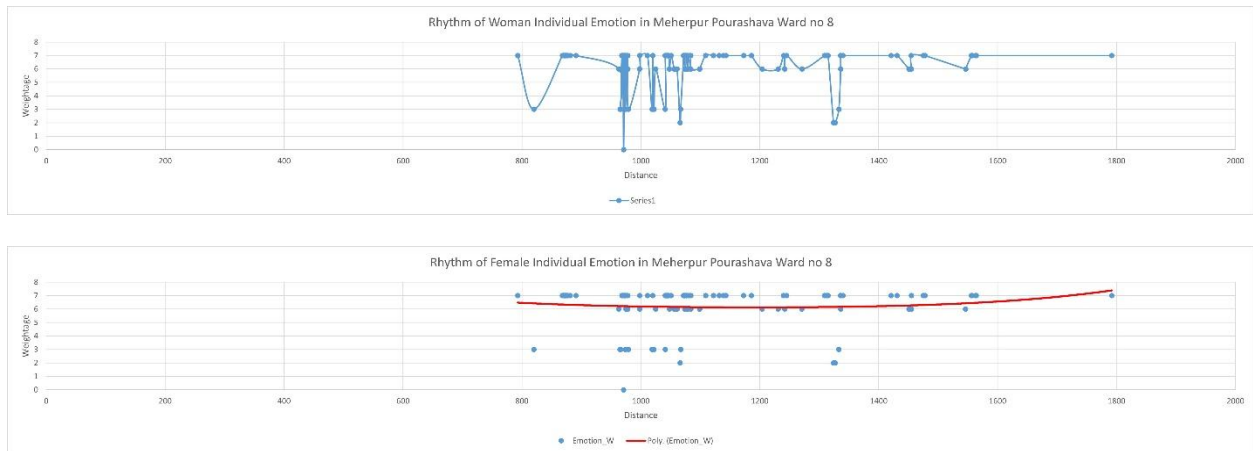


Figure: Rhythm of Female individual Emotion in Meherpur Pourashava Ward no 08

Major Finding from analysis:

Major Road of Activity:

The map highlights the major emotional corridor of Meherpur Pourashava Ward No. 8, stretching from Wapda Mor to College Mor, passing through Hotel Bazar Mor, and extending toward Mujibnagar Road. Marked emotion points along this route indicate zones of high emotional engagement, reflecting its critical role in daily mobility, social interaction, and urban activity.

This road segment, aligned with the R745 highway, connects vital formal and informal landmarks including markets, institutions, and intersections. The emotional data suggest that this corridor functions not only as a transportation route but also as a social spine of the ward—playing a key role in shaping the lived emotional landscape of residents.

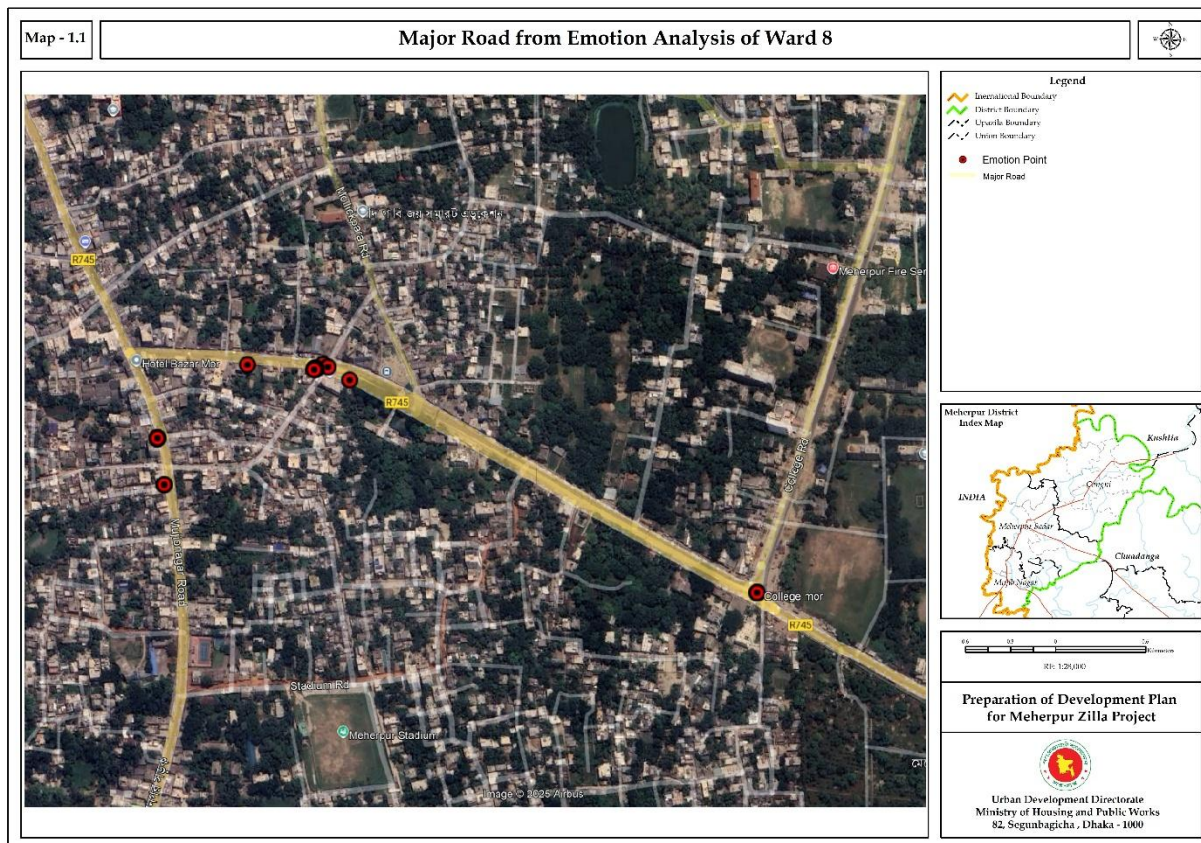


Figure: Major Road form Emotion analysis of Ward 8

Internal Road Emotion Analysis:

This map visualizes the distribution of emotion points along the internal roads of Meherpur Pourashava Ward No. 8. A dense cluster of emotional activities is observed in the central and northwestern parts of the ward, particularly around Hotel Bazar Mor, Stadium Road, and the area west of College Mor. These internal routes, though secondary to the major roads, play a crucial role in daily pedestrian and community life.

The spread of emotion points indicates that internal roads are highly embedded with emotional experiences, likely due to their proximity to homes, small markets, local institutions, and social gathering places. This analysis highlights the importance of maintaining and improving internal road infrastructure, not just for mobility, but also for supporting the emotional well-being and everyday life of residents.

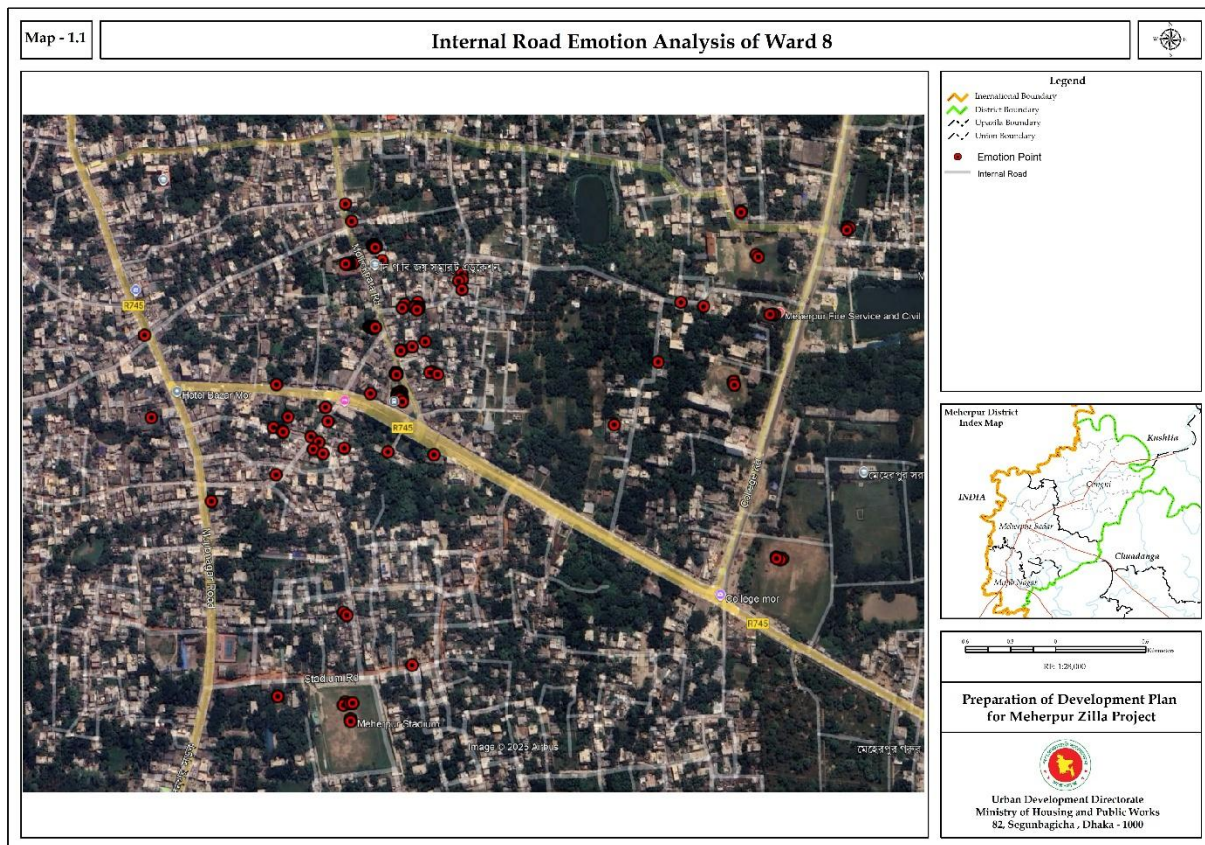


Figure: Internal Road Emotion analysis of Ward 8

Core Activity Zone

Emotional Grid Analysis of Ward No. 8, Meherpur Pourashava

The Emotional Grid Analysis of Meherpur Pourashava classifies urban spaces into four categories based on the intensity of emotional responses and functional relevance:

Very Good (Green)– Areas with strong positive emotional attachment and active public engagement

Good (Light Green) – Zones with moderate emotional connection and functional presence

Bad (Red) – Areas reflecting dissatisfaction, disconnection, or limited-service access

Very Bad (Dark Red) – Emotionally neglected spaces, typically lacking civic infrastructure or accessibility

Ward No. 8 spans across three distinct emotional zones:

1. Functional Emotion Zone

This part of the ward, especially the western segment, includes grids with civic, educational, religious, and service-oriented functions. Several Good and Very Good grids are observed here, indicating strong emotional engagement and access to key facilities.

2. Emotional Corridor

The central portion of Ward 8 acts as a transitional emotional space, linking the core and outer parts of the pourashava. Emotional intensity here is moderate and highly dependent on functional connectivity and mobility.

3. Diverse Emotional Zone

The eastern parts of the ward fall under this zone, characterized by mixed emotional responses.

These areas show a concentration of Bad and Very Bad grids, suggesting a lack of formal institutions, poor accessibility, and minimal civic interaction.

Ward No. 8 demonstrates a heterogeneous emotional landscape. While some areas benefit from good connectivity and services, others—particularly in the eastern zone—experience emotional and functional detachment. Enhance access to health, education, and community services in the eastern and central parts. Strengthen physical connectivity to the city center and surrounding functional zones. Promote public interaction through open space development, placemaking, and socio-cultural infrastructure.

Urban Challenges and Emotional Impact in the Core Activity Zone of Meherpur Pourashava Ward No. 8

Ward No. 8 of Meherpur Pourashava serves as one of the most active and emotionally significant areas of the town. This zone houses major institutions such as Meherpur Government College, Technical School, Fire Service Station, Social Services Office, Nazrul School, Shishu Park, Hotel and Bazaar areas, and dense residential neighborhoods. While these features support essential community functions and foster generally positive emotions, severe infrastructural shortcomings—especially poor road conditions and neglected water bodies—are major sources of distress for residents.

Poor Road Infrastructure: A Source of Daily Distress

Despite being central to mobility and access, road infrastructure in Ward No. 8 is a prominent source of negative emotional experiences.

Key Issues:

- **Damaged surfaces:** Roads are frequently broken, with potholes and crumbling pavement.

- Inadequate drainage: Poor stormwater management leads to waterlogging, especially during monsoon months.
- Pedestrian-unfriendly design: A lack of sidewalks, zebra crossings, and street lighting makes movement difficult and unsafe.
- Traffic congestion and dust pollution: High levels of vehicular movement combined with unpaved shoulders create environmental discomfort.

Emotional Impact:

As roads connect homes, schools, clinics, and public offices, their poor state leads to widespread frustration, stress, and dissatisfaction among residents. For vulnerable groups like children, elderly, and women, the lack of safe pedestrian infrastructure intensifies the emotional toll.

Urban Insight: Roads are the physical and emotional arteries of the ward. When neglected, they not only hinder access and functionality but also degrade the psychological experience of urban life.

Broader Urban Challenges in the Core Activity Zone

The deeper issues affecting the emotional environment in Ward No. 8 stem from systemic urban challenges:

- High urban pressure: Population density and centrality of functions result in rapid infrastructure wear and tear.
- Lack of maintenance culture: Despite being a hub, the ward lacks regular infrastructure monitoring and upkeep.
- Inadequate waste management: Overflowing drains and illegal dumping worsen both environmental and emotional conditions.
- Absence of inclusive design: The urban layout lacks accessible walkways, shaded rest areas, or child- and elderly-friendly features.

The 800–1400-meter stretch of Ward No. 8 operates as a social, functional, and emotional core of Meherpur Pourashava. While its institutions and amenities support essential services, critical shortcomings in road infrastructure and pond maintenance significantly undermine the emotional well-being and quality of life of its residents.

To enhance both physical and emotional urban health, the following interventions are urgently needed:

- Regular road repairs and implementation of drainage systems
- Restoration and greening of ponds, supported by waste regulation

- Development of walkable streets and inclusive public spaces
- Scheduled infrastructure audits and community participation in maintenance

By addressing these issues holistically, Meherpur Pourashava can transform Ward No. 8 into a model of urban resilience—where built environment and emotional experience work in harmony to support community well-being.

Individual Center of City Analysis

The socio-emotional mapping exercise conducted in Ward No. 8 of Meherpur Pourashava reveals a compelling divergence between the city's official center and the lived, perceived center as identified by residents through mental mapping. While the formal administrative and commercial core of Meherpur is typically understood to be Boro Bazar Char Rasta Mor, local residents from Ward No. 8 consistently indicated alternative locations as the “center” of their daily urban life.

This discrepancy underscores the distinction between official spatial centrality and perceived emotional-functional centrality. The most frequently identified places by respondents in Ward 8 as their personal “urban center” are:

Location Name	Number of Respondents
Shishu Park	10
Stadium	4
College Mor	2
DC Office	1
Govt. College	1
Govt. Girls High School	1
Markaj Mosque	1
Women’s Department	1

1. Proximity and Accessibility from Ward 8

Most of the above locations are spatially closer and more easily accessible to residents of Ward No. 8 than the distant commercial hub of Boro Bazar Char Rasta Mor.

- Shishu Park, Stadium, College Mor, and DC Office are all located within or around Ward 8 and are walkable from most residential zones.
- Their proximity ensures frequent interaction, making them more relevant to the daily routines of the residents.

2. Functional Significance and Everyday Use

The perceived centers identified are deeply tied to essential aspects of urban life:

- Shishu Park and Stadium serve as recreational spaces for youth and families.
- Government College and Girls' High School are important educational centers, symbolizing opportunity and routine engagement.
- Markaj Mosque plays a spiritual and community role.
- DC Office and Women's Department offer civic and administrative services important for public affairs, especially for women and marginalized groups.

These are not just physical structures but multipurpose spaces—where people learn, play, pray, interact, and seek services which significantly shapes their perception of urban centrality.

3. Emotional Attachment and Mental Mapping

Unlike Boro Bazar, which may serve mainly commercial purposes, the places listed above are tied to deep emotional connections and community memories:

- Shishu Park is associated with joy, leisure, and family bonding, especially for women and children.
- Religious and educational institutions are linked with identity, aspiration, and collective values.
- Government buildings, though administrative in nature, symbolize civic presence and access to rights and services.

These places emerge as the emotional and symbolic heart of the community—identified not through cartographic maps but through the residents' lived experiences and emotional geographies.

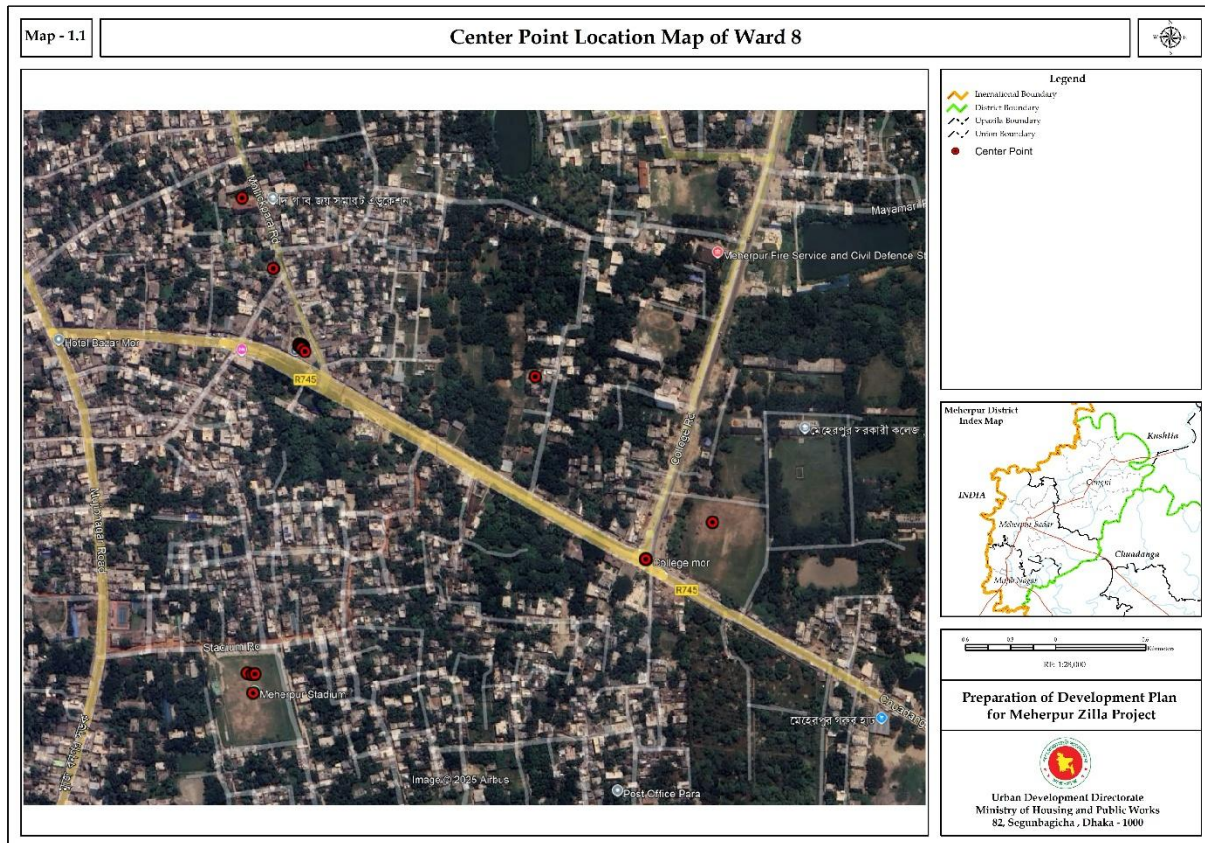


Figure: Center Point Location of Ward 8

The analysis of Ward No. 8 highlights how mental mapping reveals a nuanced understanding of urban centrality rooted in daily experience, proximity, functional relevance, and emotional attachment. While Boro Bazar remains the city's administrative and commercial core, the residents of Ward 8 perceive locations like Shishu Park, Stadium, College Mor, Government College, and the DC Office as the true “center” of their city life.

This divergence between formal and perceived centers emphasizes the need for urban planners and policymakers to recognize user-defined centrality in designing inclusive and responsive urban spaces. Recognizing these emotional centers can lead to more empathetic, people-centered planning in rapidly urbanizing towns like Meherpur.

Emotional and Spatial Grid Analysis of Meherpur Pourashava Ward No. 8

In the emotional and spatial analysis of Ward No. 8 of Meherpur Pourashava, a grid-based mapping approach was employed using a 50-meter by 50-meter resolution. This method enabled a detailed spatial breakdown of emotional experiences linked to urban functionality and infrastructure across the ward. Emotional data collected through mental mapping was overlaid on the grid to classify zones based on activity intensity and emotional engagement.

Grid Classification Approach

A total of 45 active grids were identified and categorized into two distinct groups based on the type and diversity of activities, as well as the emotional responses associated with those spaces:

Important Activity Grids (22 Grids Identified)

Grids were classified as “important” when they contained multiple high-value urban functions that contribute significantly to the emotional, social, and daily life of residents. These zones featured higher densities of positive emotional responses and frequent user engagement.

Key Functional Features in These Grids Include:

- Fire Service Station – Associated with protection and emergency response, generating feelings of safety and reliability.
- Meherpur Government College – A hub of education and aspiration, evoking pride and hope among youth and families.
- Government Girls’ High School & Nazrul School – Centers of daily student activity and community gathering.
- Technical School – Symbolizing skill development and future opportunities for local youth.
- Shishu Park – A major emotional hotspot for families, evoking joy, relaxation, and bonding.
- Stadium Road Area – Used for movement, community sports, and social events.
- DC Office – Provides administrative and civic services, promoting feelings of access and empowerment.

These 22 grids represent the functional and emotional heart of Ward 8. They support diverse urban experiences—learning, recreation, safety, civic participation—and are central to the social cohesion of the ward. As such, they warrant priority investment in infrastructure, maintenance, safety, and inclusive public design.

Less Important Grids (23 Grids Identified)

Grids were labeled “less important” where only basic residential functions or road segments existed, with limited public facilities or meaningful emotional engagement. Emotional responses in these areas were generally low in diversity and often skewed toward negative experiences.

Common Issues Identified in These Grids:

- Poor road infrastructure – Including potholes, damaged surfaces, and unpaved roads causing inconvenience and emotional frustration.
- Drainage problems – Especially during the rainy season, leading to waterlogging and poor walkability.
- Improper waste disposal – Garbage accumulation in open spaces and roadside areas, causing disgust and health concerns.

Although these grids are not currently vibrant in terms of social or emotional interaction, they remain critical to overall livability. Residents expressed emotional discomfort in these spaces, particularly due to neglected infrastructure and lack of public amenities.

Implications for Urban Planning in Ward No. 8

- The spatial concentration of emotional value in specific grids highlights areas that are vital to community life.
- Important activity grids should be protected, enhanced, and prioritized in development plans—especially in terms of maintaining service quality, ensuring safety, and adding inclusive features like seating, lighting, and greenery.
- Less important grids offer strong potential for urban upgrades, such as:
 - Road and drainage improvements
 - Community micro-spaces (e.g., benches, gardens, play corners)
 - Better waste management facilities
- A balanced development strategy is necessary—one that elevates neglected zones while strengthening high-impact areas.

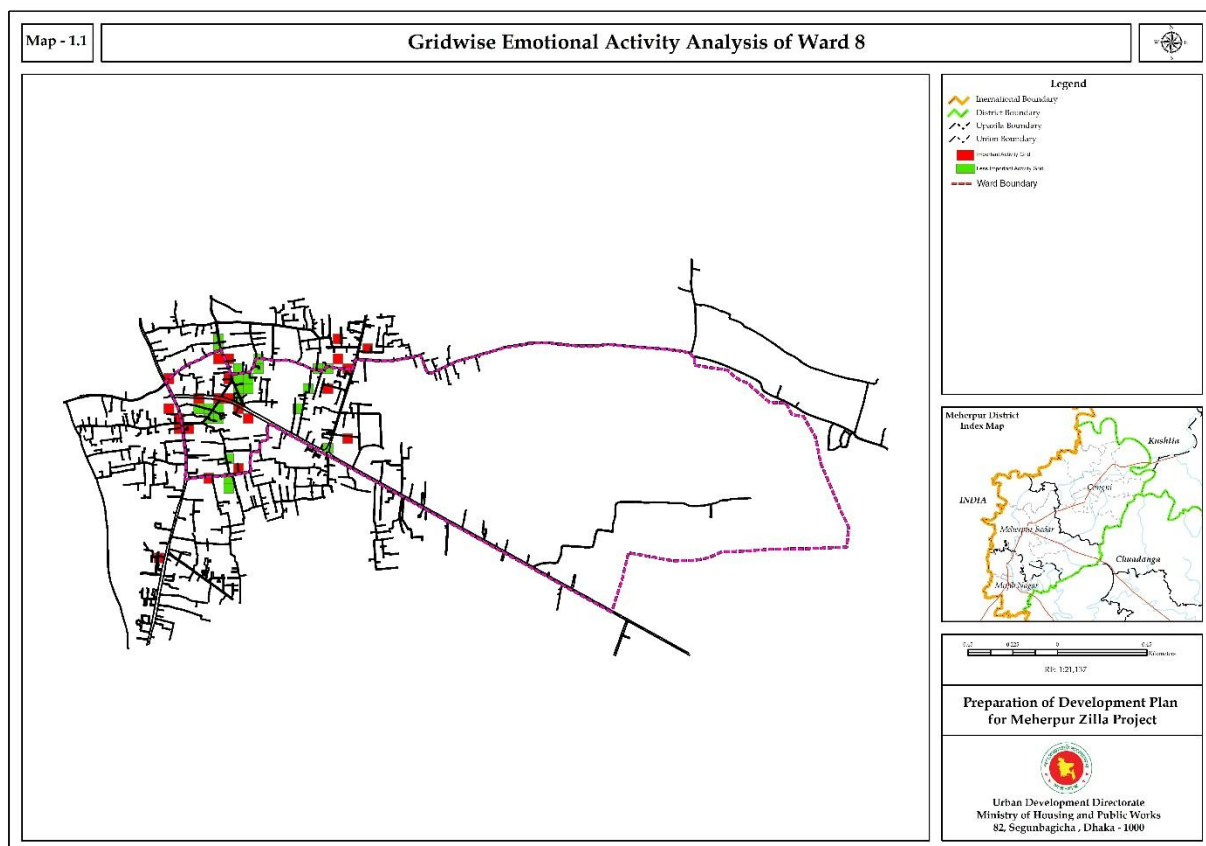


Figure: Grid Wise Emotional Activity Analysis of Ward 8

The grid-based emotional mapping of Ward No. 8 reveals two clear urban realities:

- 22 grids form the emotional and functional backbone of the community.
- 23 grids, while structurally less diverse, present opportunities for targeted interventions to raise quality of life.

By integrating emotional insights into spatial planning, Meherpur Pourashava can create a more equitable, people-centered, and emotionally resilient urban environment. Strategic investment in both grid types will ensure that the ward grows not only in physical infrastructure but also in emotional well-being.

Emotional Weightage Analysis:

The emotional landscape of Ward No. 8 has been spatially visualized using a grid-based mapping system, encompassing 45 distinct grids. Each grid represents a 50m x 50m urban segment where residents have expressed emotional responses related to their everyday experiences.

Grid Classification Based on Emotional Weightage

The emotional intensity across the ward has been categorized into three levels, based on total emotional weightage scores:

High Weightage (Red Zones): 23 Grids

These areas scored the highest in emotional responses, with weightage values ranging from 49 to 121. High-weightage grids are primarily clustered around College Mor, Meherpur Fire Service, and adjacent institutional and civic landmarks. These areas are emotionally significant due to high levels of social interaction, public service delivery, safety infrastructure, and accessibility.

Medium Weightage (Yellow Zones): 12 Grids

Grids in this category recorded moderate emotional intensity, with scores typically ranging from 21 to 49. These areas represent transitional spaces functionally active but lacking in design quality or emotional triggers that could further elevate their perception.

Low Weightage (Green Zones): 10 Grids

With emotional scores between 3 and 21, these grids represent **low-activity or neglected urban pockets**. These areas are often marked by infrastructure deficits, such as poor roads, inadequate lighting, ineffective drainage, or absence of public facilities, resulting in emotional detachment or dissatisfaction among residents.

Urban Planning Implications

The emotional weightage analysis serves as a critical input for people-centric urban planning. Based on the classification, the following interventions are recommended:

Low-Weightage Grids: Immediate Improvement Needed

- * Repair roads and upgrade basic infrastructure
- * Install or fix street lighting for safety
- * Improve drainage systems to reduce flooding
- * Introduce small-scale community services or green interventions to activate public engagement

Medium-Weightage Grids: Strategic Enhancement Zones

- * Add urban greenery, seating, and recreational features
- * Improve connectivity and pedestrian access
- * Encourage multi-use development to diversify activity and emotional engagement

High-Weightage Grids: Emotional Assets to Preserve**

- * Maintain existing infrastructure and public services
- * Protect from overcrowding or degradation
- * Use successful features as models to replicate in other parts of the ward
- * Integrate community feedback mechanisms to sustain emotional relevance over time

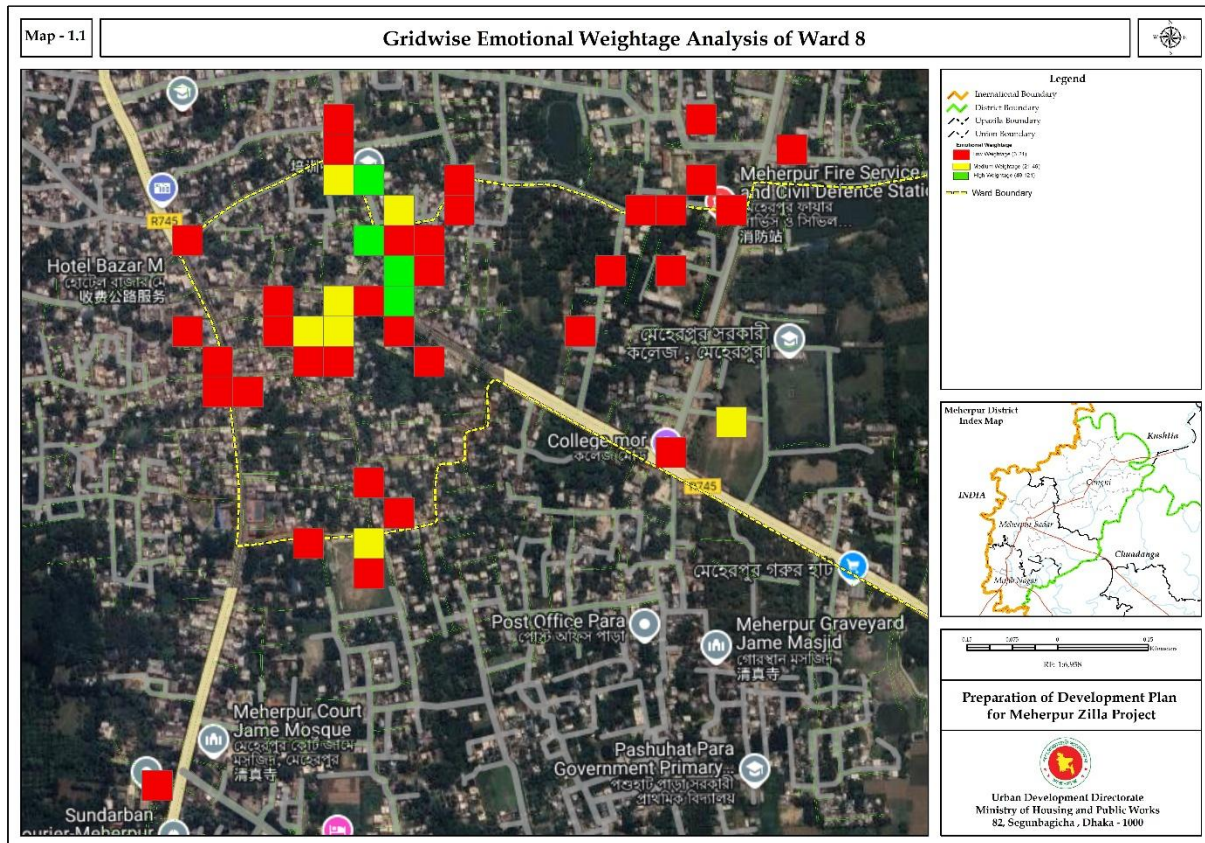


Figure: Grid Wise Emotional Weightage Analysis of Ward 8

Formal Informal Emotional Activities Analysis:

This map presents the spatial distribution of emotional activities in Meherpur Pourashava Ward No. 8 by categorizing areas into formal and informal activity grids.

- Green grids represent formal emotional activity zones, associated with structured spaces like government offices, educational institutions, banks, and other organized facilities.
- Red grids indicate informal emotional activity zones, covering unstructured or community-driven spaces such as markets, tea stalls, open fields, and neighborhood intersections.

The majority of emotional activities appear concentrated in informal spaces, reflecting their importance in everyday social life and emotional expression. However, formal grids also show significant emotional engagement, especially around institutions like Meherpur Fire Service, College Mor, and nearby schools. This spatial distinction is essential for urban planners to balance both formal service provision and informal social infrastructure in development strategies.

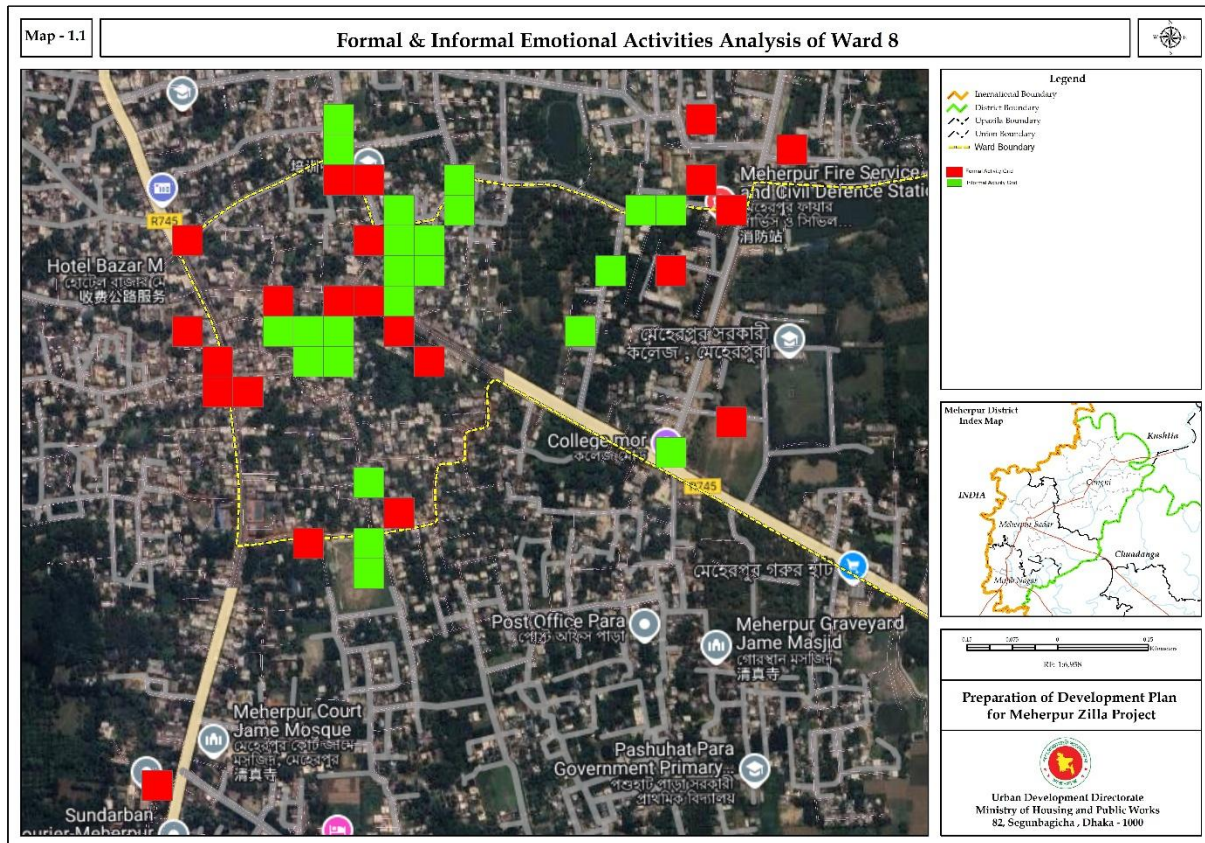


Figure: Formal Informal Emotional Activity Analysis of Ward 8

Gender Based Emotional Activity Analysis:

This map displays the gender-based distribution of emotional activities across different grids in Meherpur Pourashava Ward No. 8. The grid cells are color-coded to indicate gender dominance in emotional data collection:

- Red grids represent areas where female emotional responses dominate.
- Green grids indicate male-dominated emotional activity zones.

The visual reveals a clear dominance of female emotional data across most of the ward, especially concentrated around College Mor, Hotel Bazar Mor, and the central-western residential areas. A few male-dominated grids are scattered in the central and northeastern parts of the ward.

This analysis reflects the strong participation of women in emotional mapping and highlights spatial zones where female presence and emotional interaction are particularly significant valuable insights for gender-sensitive urban planning and public space design.

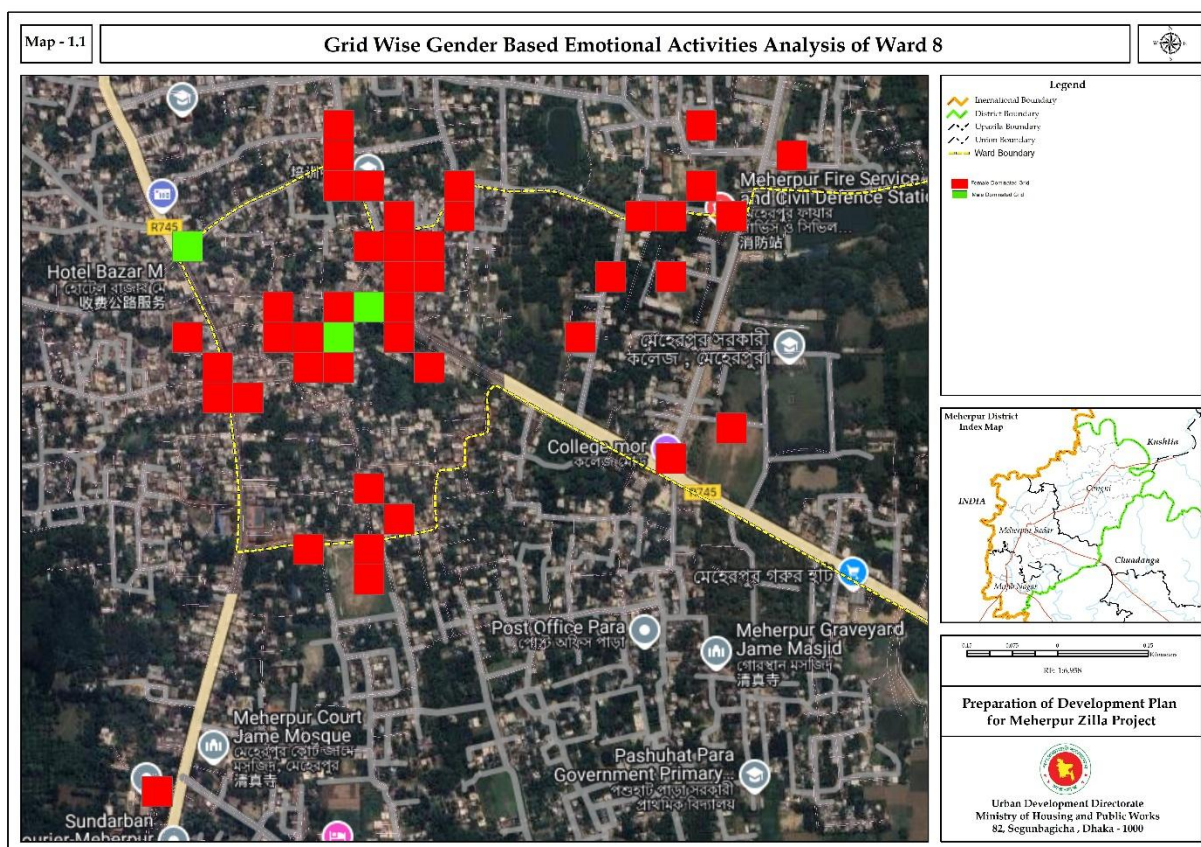


Figure: Grid Wise Gender Based Emotional Activity Analysis of Ward 8

Average Distance to Emotional Activity

In Ward No. 8 of Meherpur Pourashava, emotional geography was analyzed using data collected from 142 individual mental map points, where residents identified locations of personal emotional significance across their daily activity landscape. These locations span institutional, commercial, recreational, and administrative domains.

The analysis reveals a minimum average emotional activity distance of 85.6 meters (BRTC) and a maximum average distance of 742 meters (Deputy Commissioner's Office). This suggests a predominantly walkable emotional ecosystem, with some emotionally significant places located further from the residential core.

1. Breakdown of Average Emotional Activity Distances by Location Type

Location Type	Average Distance (meters)
BRTC	85.6
Fire Service	135
Children Park	138

Location Type	Average Distance (meters)
Govt. Girls High School	143
Ansar VDP	145
Bank	140
Bazar	196
Taher Clinic	281
Stadium	290
Govt. College	362
College Mor	492.5
Deputy Commissioner's Office	742

2. Contextual Analysis with National Planning Guidelines

According to planning benchmarks outlined in the Urban Development Directorate (UDD) Manual, National Urban Policy (2011), and Detailed Area Plan (DAP) Standards, the following norms apply:

- Essential services (health, education, parks) should be within 400 meters from residential areas in small to medium towns.
- Daily services (e.g., banks, clinics, markets) are recommended to be within 200 meters walking distance.
- General walkability standards range between 400–500 meters, or a 5–10-minute walk, for most urban residents.

3. Comparative Findings for Ward No. 8

Most emotional activity points fall within national accessibility standards, especially critical services like fire service (135 m), schools (143 m), and banks (140 m).

a) Community and administrative centers like Bazar (196 m) and Taher Clinic (281 m) are slightly farther but still within recommended walkable limits.

b) Key locations such as Govt. College (362 m) and College Mor (492.5 m) approach or exceed the upper boundary of comfort walking range.

c) The Deputy Commissioner's Office (742 m) is the farthest emotionally relevant site, indicating reduced accessibility for administrative engagement, especially for vulnerable or low-mobility populations.

The emotional activity distance profile of Ward No. 8 shows alignment with national planning standards, reflecting a generally walkable and emotionally responsive urban form. However, strategic enhancements—particularly in terms of connectivity to high-distance emotional anchors—could further strengthen urban inclusivity, accessibility, and resident well-being.

Ensuring equitable spatial access to all emotionally significant locations is essential for sustaining a balanced and community-centric urban environment.

The map presents the spatial distribution of individual emotional activities across different grids in Meherpur Pourashava Ward No. 8. Each colored point represents the emotional activity of a specific individual, with names listed in the legend (e.g., Afroja Khatun, Md. Rakibul Hasan, Sharmin Akter, etc.). The data shows a clustered pattern of emotional engagement, particularly concentrated in the northern and central parts of the ward.

This pattern suggests that emotional expressions are more prominent in areas with higher human interaction or activity, such as near College Mor, Meherpur Fire Station, and community-based spaces. The diversity of individual data points indicates varied emotional associations with specific locations—valuable for understanding lived experiences and planning responsive urban environments.

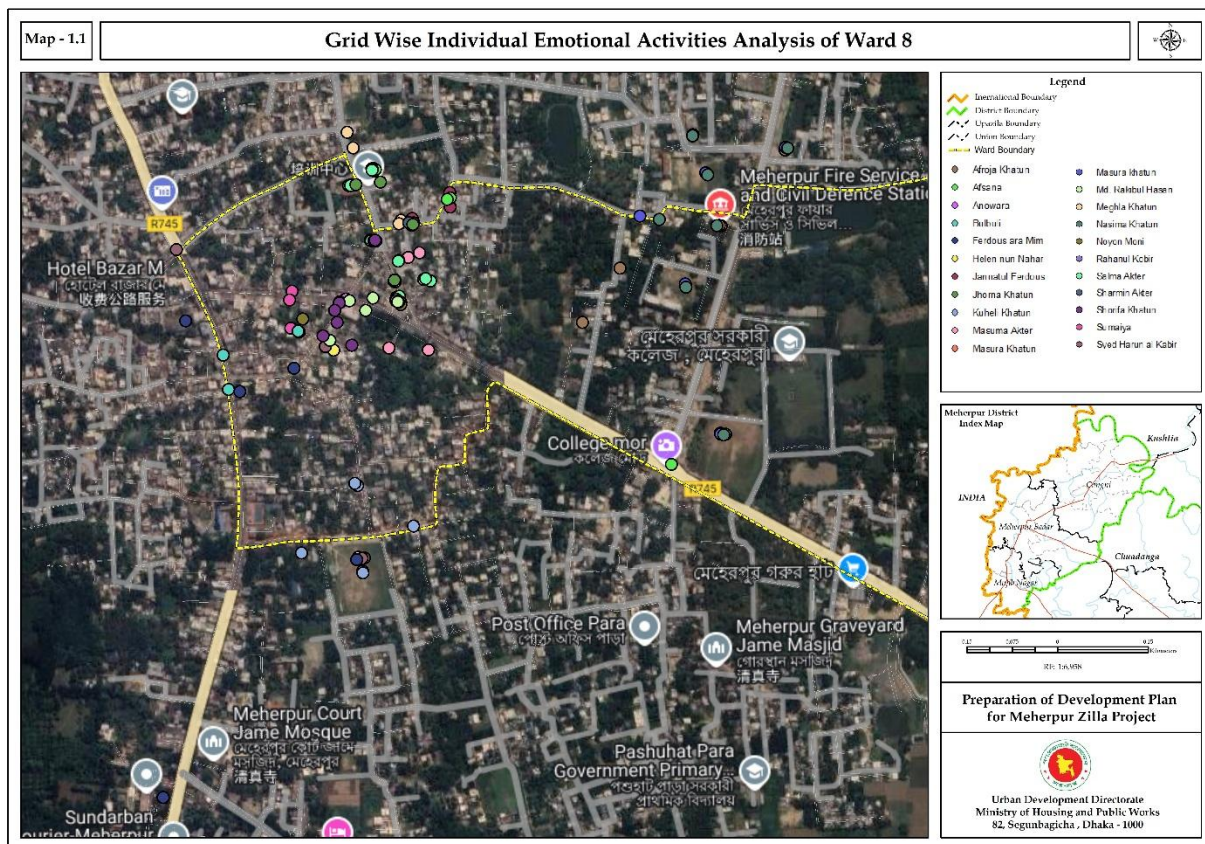


Figure: Grid Wise Individual Emotional Activity Analysis of Ward 7

Emotional Cycle

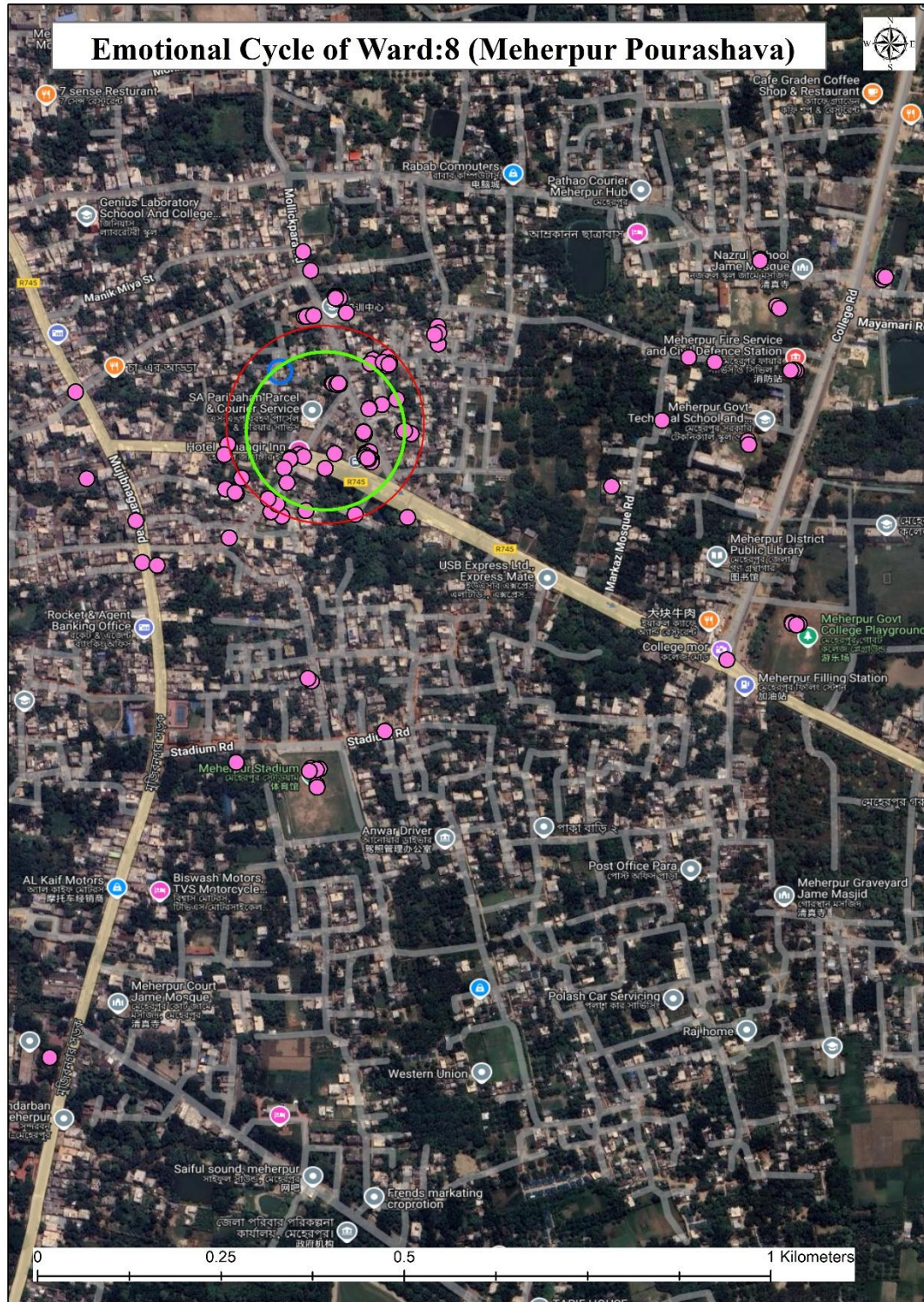
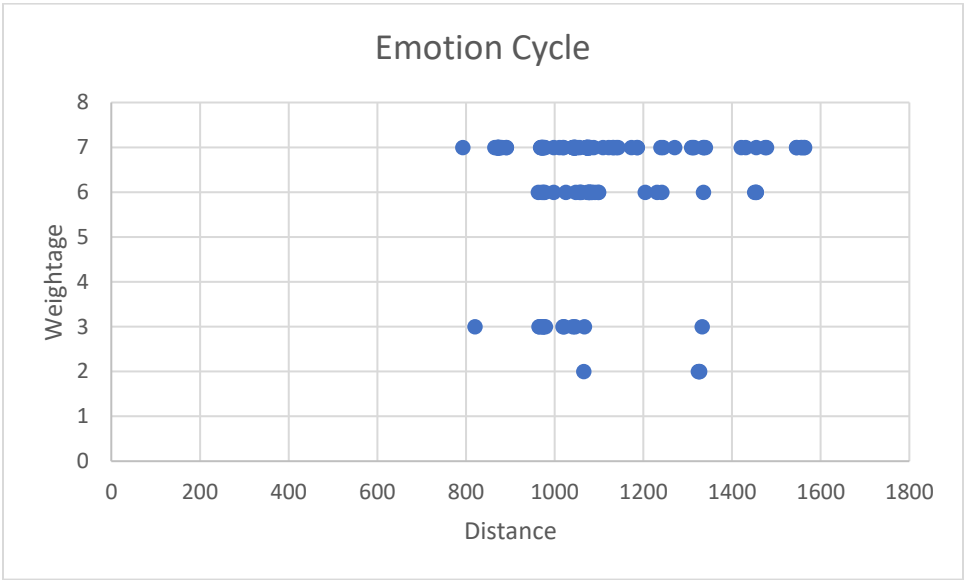
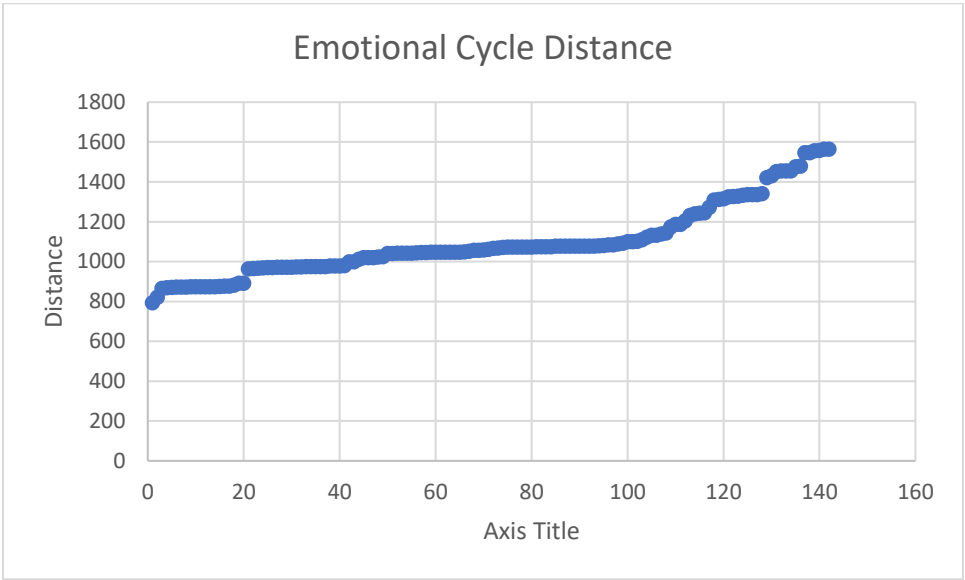
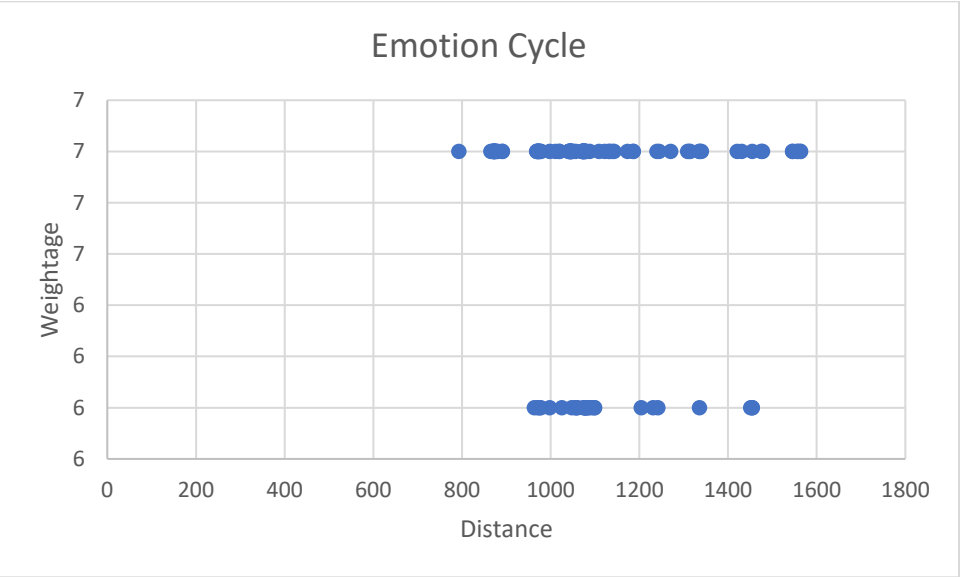
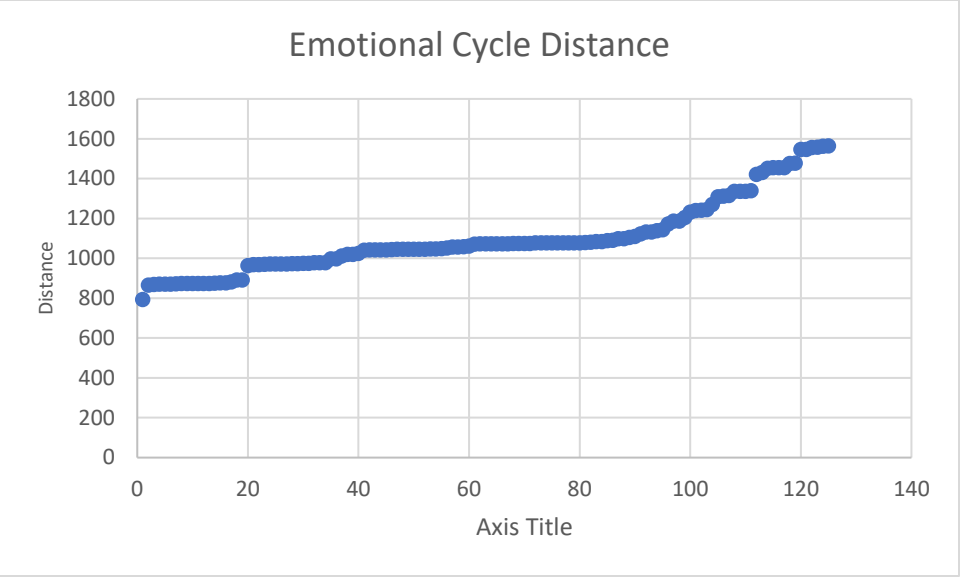


Figure: Emotional Cylce of Ward:8

Overall Emotional Cycle



Positive Emotion Cycle



Negative Emotional Cycle

