



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-6

Development of Planning Standard based on Previous Master Plan and Other Sources and Report Submission

July 2025

Sanjib Saha
Urban Planner

ASSIGNMENT 6:

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AUGUST 14, 2025

SANJIB SAHA

URBAN PLANNER (INDIVIDUAL CONSULTANT)

PREPARAION OF DEVELOPMENT PLAN FOR

MEHERPUR ZILLA



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Summary of Assignment-6

Drawing on the multiple analyses you've provided—including the emotional maps, the land suitability assessment, and the adaptive cycle visualization—we can prepare a cohesive land use proposal for Meherpur Paurashava. This approach moves beyond traditional planning by integrating human-centered data with objective spatial analysis.

1. Urban Core & Revitalization Zone

Analysis Reference: This proposal references the areas identified as "Highly Suitable" for development on the suitability map (green zones in Wards 1, 2, and 6). It also directly addresses the hotspots of Disgust, Fear, and Anger found on both the individual and newspaper emotion maps within these same wards. The adaptive cycle map places these areas in the "Growth" phase.

Land Use Proposal:

Designate a mixed-use, high-density urban core. The goal is to concentrate commercial, residential, and institutional development in these areas to promote compact, efficient growth.

2. Residential and Community Amenity Zone

Analysis Reference: This proposal is based on the emotional maps, which show a predominance of Happiness and Love in wards like 4, 5, 7, and 8. The land suitability map identifies these areas as "Less Suitable" for intensive development, and the adaptive cycle map places them in the "Conservation" or "Release" phases.

Land Use Proposal:

Zone these areas for low-to-medium density residential use. The focus should be on preserving the high quality of life and positive emotional landscape that already exists.

3. Green Belt & Agricultural Preservation Zone

Analysis Reference: This proposal is a direct response to the vast areas identified as "Less Suitable" for urban development on the suitability map. The land cover projection map also shows these areas as dominant in Agriculture and Vegetation in 2043. The adaptive cycle map places the periphery in the "Release" phase, indicating a high risk of unmanaged sprawl.

Land Use Proposal:

Zone a significant portion of the outer wards (particularly in Wards 4, 5, 8, and 9) as a Green Belt and Agricultural Preservation Zone.

4. Transitional & Institutional Zone

Analysis Reference: This proposal accounts for the areas identified as "Moderately Suitable" on the suitability map, and the scattered "Reorganization" and "Surprise" zones from the adaptive cycle and emotion maps.

Land Use Proposal:

Designate these areas as a Transitional and Institutional Zone. This provides a buffer between the dense urban core and the green belt.

(Sanjib Saha)

Urban Planner

Development of Planning Standard based on Previous Master Plan and Other Sources and Report Submission

Meherpur Pourashava Landuse Zoning

PRA Outcome

The emotion “Disgust” and “Fear” concentrated in Ward No. 1 and Ward No. 9, with significant hotspots in Wards 3, 5, and 6. This emotion is typically driven by issues like poor sanitation, unmanaged waste, lacking of community facilities, water logging, poor road surface and environmental decay. Also prominent in Ward No. 1 and Ward No. 9, and scattered throughout other wards. This is often linked to a lack of safety, poor lighting and insecurity in public spaces. The “Sadness” and “Anger” emotions are broadly distributed, but with high concentrations in the central wards (1, 2, 6, and 9). They stem from a lack of public amenities, social service and unaddressed grievances.

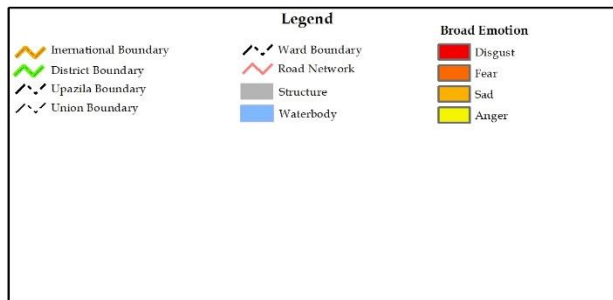
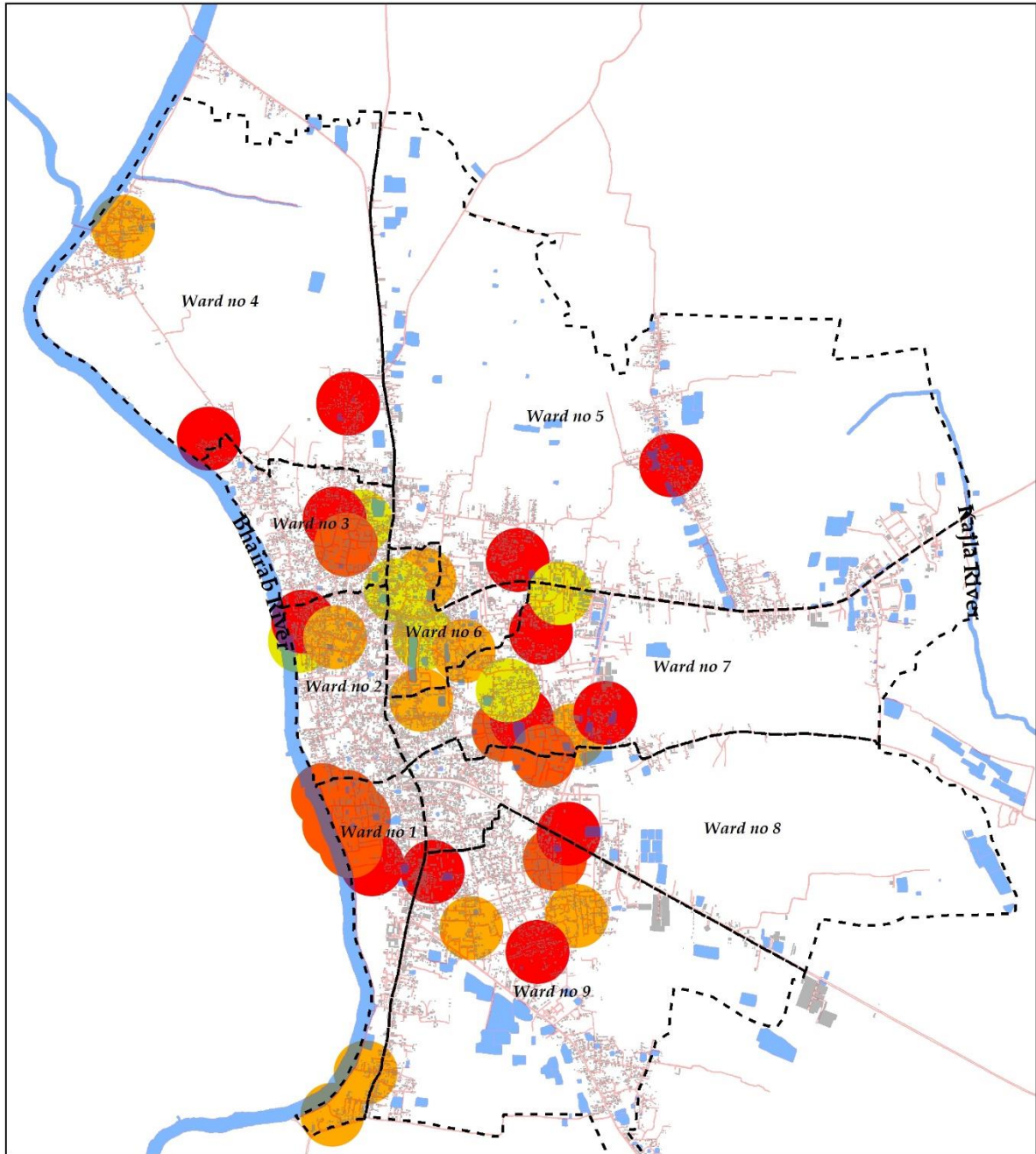
Proposed Landuse Zoning based on this Outcome

This outcome provides a human-centered basis for zoning. By targeting the root causes of these emotions, it can propose a strategic approach to land use:

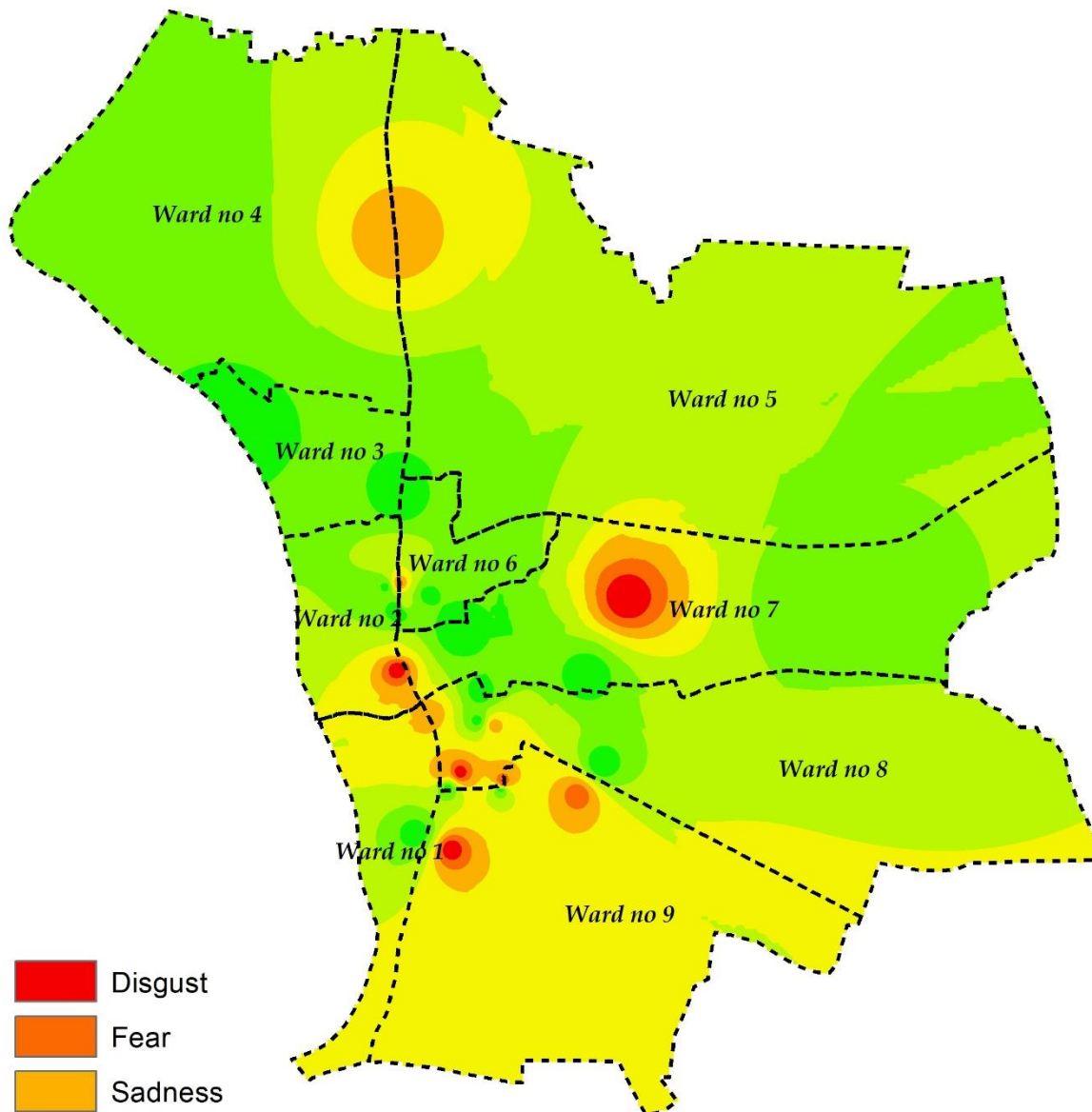
- **Revitalization and Mixed-Use Core:** The areas with the highest concentration of **Disgust** and **Fear** (Wards 1, 2, and 9) should be designated as a **Revitalization and Mixed-Use Core**. The zoning here would focus on urban regeneration, promoting mixed-use development with stricter regulations for waste management, sanitation, and public safety. This would involve revitalizing urban voids, improving drainage, and enhancing public lighting.
- **Residential with Community Amenities:** Wards with a broader distribution of emotions, particularly those with fewer intense hotspots of Disgust and Fear (such as Wards 4 and 8), are suitable for **low-to-medium density residential zoning**. Planning in these areas should prioritize creating and preserving public amenities like parks, playgrounds, and community centers to promote positive social interactions and prevent the emergence of negative emotional hotspots.
- **Institutional and Special-Purpose Zone:** Wards with a mix of emotions, including concentrations of **Anger** (such as Wards 5, 6, and 7), could be zoned for **institutional or special-purpose use**. This would include public facilities like schools, hospitals, and administrative offices. The zoning would require specific design guidelines to manage traffic, noise, and waste, which could be the source of the negative emotions.

Map - 5

PRA OUTCOME MAP OF MEHERPUR POURASHAVA



Newspaper Emotion



Newspaper Emotional Analysis Outcome

The most intense negative emotions are clustered in a few key areas. Disgust and Fear are concentrated in Ward No. 1 and Ward No. 9, and also appear in Ward No. 6. The largest hotspot of Anger/Sadness is located in Ward No. 7, with other significant areas in Ward No. 6 and Ward No. 9. These hotspots likely correspond to issues such as poor sanitation, lack of public safety, or socio-political conflicts that are frequently reported in the news.

Happiness and Love are widespread across the municipality. They dominate the northern and eastern wards, including Ward No. 4, Ward No. 5, and Ward No. 8. This suggests that while there are concentrated problems, a general sense of well-being is prevalent in these less-dense areas.

This emotion is scattered and often appears near other emotional hotspots, possibly indicating areas of new development or changes that are receiving public attention.

Proposed Landuse Zoning based on this Outcome

The emotional data provides a human-centered basis for land use zoning. By addressing the emotions, it can propose a more effective zoning strategy:

- **Revitalization and Mixed-Use Core:** Wards with the highest concentration of negative emotions, particularly Disgust and Fear (Wards 1, 6, and 9), should be designated for Revitalization and Mixed-Use Zoning. This zone would prioritize urban regeneration projects, stricter waste management regulations, and enhanced public safety measures. The goal is to transform problem areas into vibrant, safe, and clean mixed-use zones with commercial, residential, and public spaces.
- **Residential and Community Amenity Zone:** Wards dominated by Happiness and Love (Wards 4, 5, and 8) should be zoned as Residential Zones with a focus on Community Amenities. Planning in these areas should prioritize the creation and preservation of parks, playgrounds, and community centers to maintain the existing positive emotional landscape. Development here would be lower-density to preserve quality of life.
- **Institutional and Special-Purpose Zone:** Areas with a mix of emotions, including Anger (such as Ward 7), could be zoned for Institutional or Special-Purpose Use. This would include public facilities like schools, hospitals, and government offices. Zoning regulations here would need to focus on managing the root causes of the reported anger, such as traffic congestion and inadequate services.

Individual Emotional Analysis from Mental Map Outcome

There are distinct concentrations of Disgust and Fear. The most intense hotspots are found in Ward No. 1 and Ward No. 9. This indicates that residents in these areas experience significant issues related to sanitation, waste management, or personal safety. Pockets of these negative emotions are also present in Wards 3 and 6.

The emotions of Love and Happiness are widespread across the municipality. They are particularly dominant in the northern and eastern wards, including Ward No. 4, Ward No. 5, Ward No. 7, and Ward No. 8. This suggests a generally positive sentiment and a strong sense of well-being in these areas.

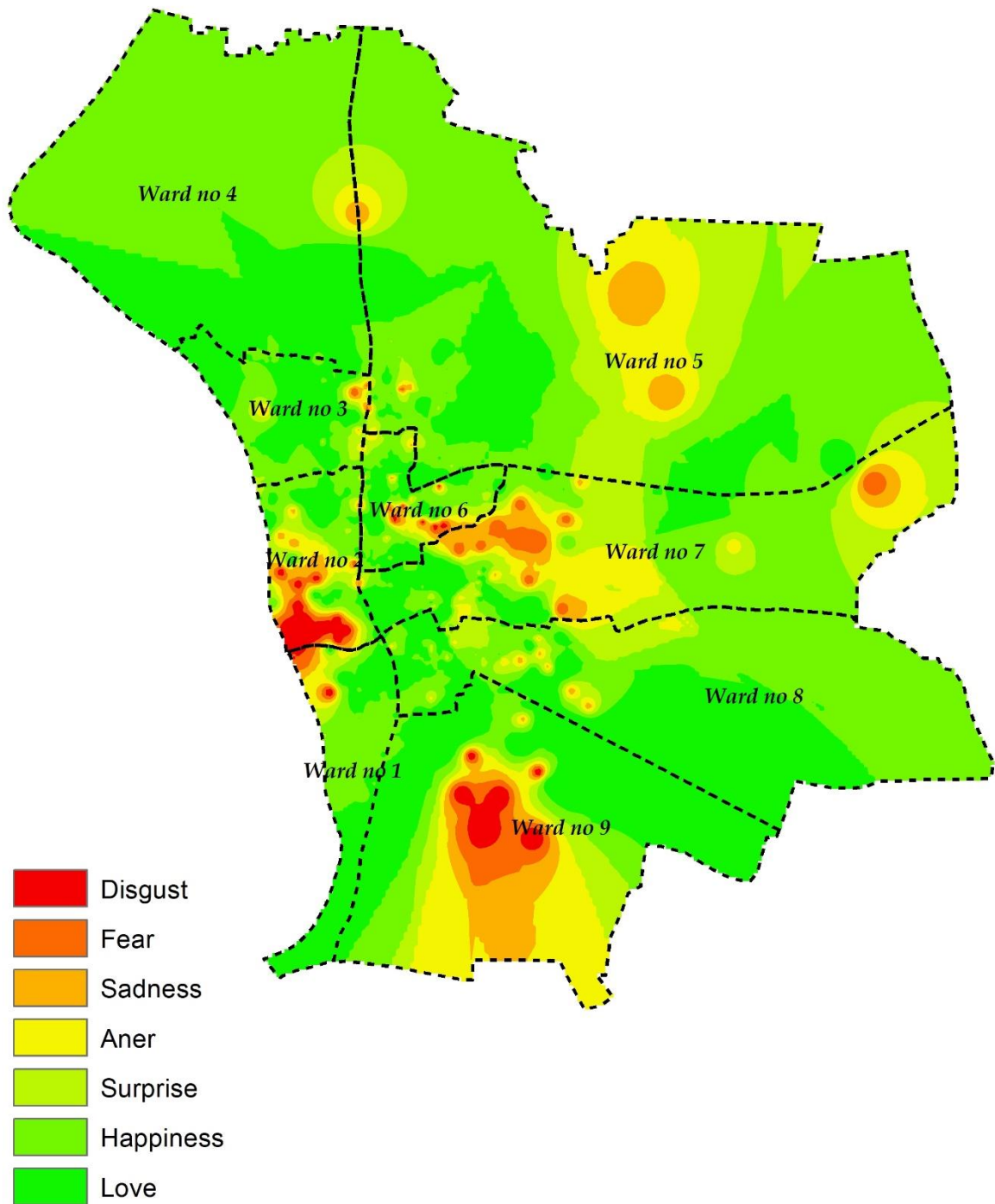
Other emotions like Sadness/Anger and Surprise are more broadly distributed, indicating a variety of social and economic factors at play.

Proposed Landuse Zoning based on this Outcome

This emotional data provides a powerful human-centered basis for land use zoning. By directly addressing the emotional state of a ward, urban planning can be more effective.

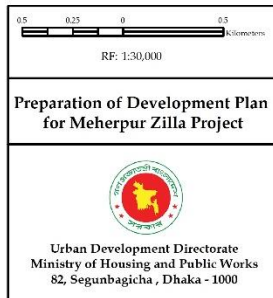
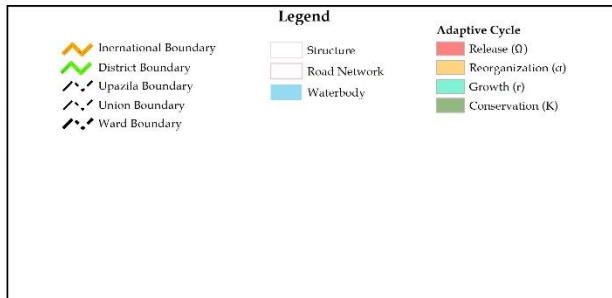
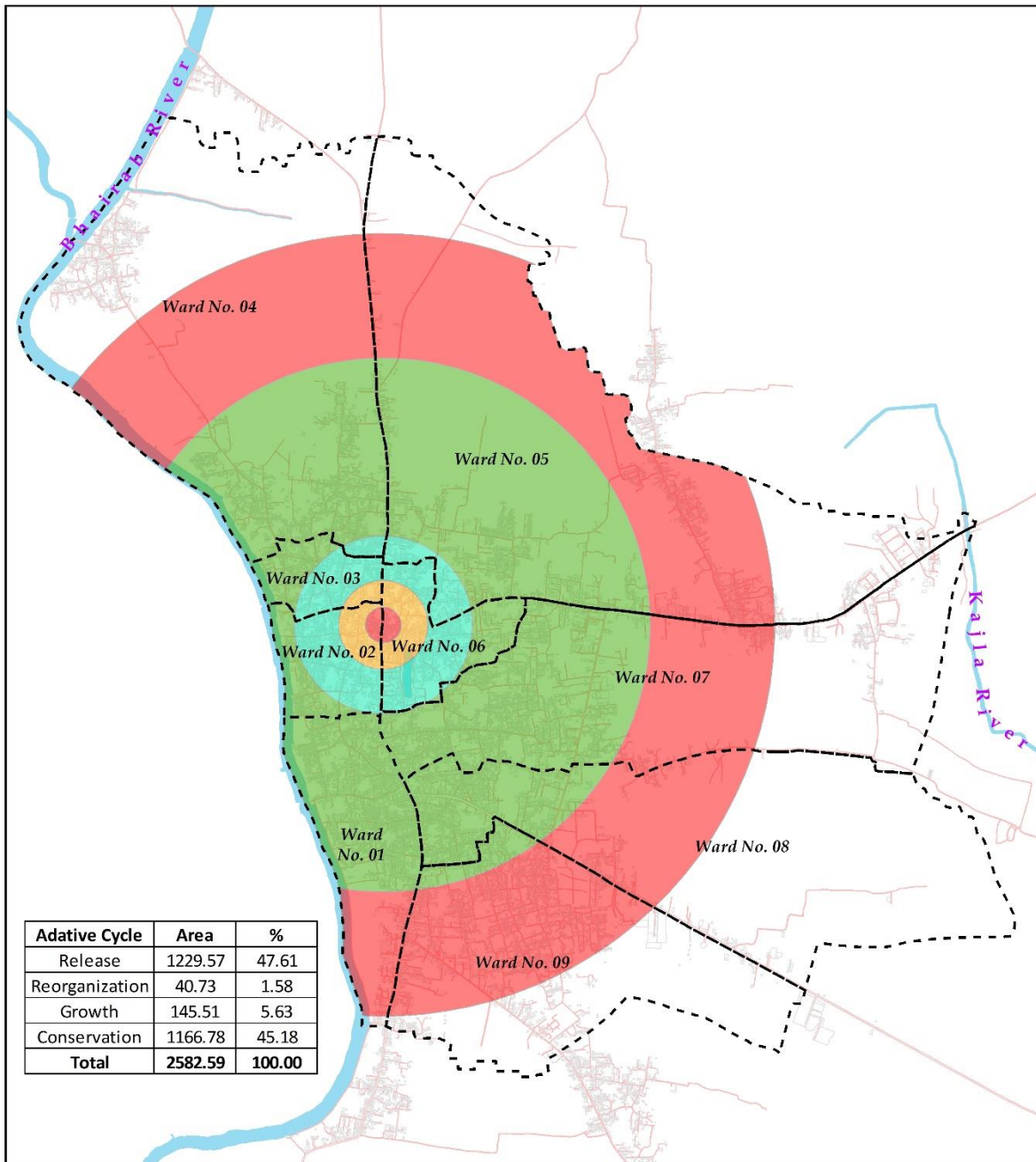
- **Revitalization and Mixed-Use Core:** The areas with the highest concentration of Disgust and Fear (Wards 1 and 9) should be zoned as a Revitalization and Mixed-Use Core. The primary goal would be to transform urban voids and address their root causes by implementing strict waste management policies, improving drainage, and enhancing public safety and lighting.
- **Residential and Community Amenity Zone:** The wards dominated by Happiness and Love (Wards 4, 5, 7, and 8) are ideal for Residential Zoning with a focus on Community Amenities. The objective here would be to preserve the existing high quality of life by protecting green spaces, developing parks and recreational areas, and ensuring that new development does not disrupt the positive emotional landscape.
- **Institutional and Transitional Zone:** Wards with a mix of emotions, particularly those with pockets of negative feelings (Wards 2, 3, and 6), could be designated as Institutional and Transitional Zones. This zoning would allow for the careful placement of public facilities, such as schools and clinics, while implementing specific design guidelines to manage new development and mitigate the negative emotional drivers.

Individual Emotion



Map - 2

ADATIVE CYCLE OF NEWSPAPER EMOTIONS IN MEHERPUR POURASHAVA



Adaptive Cycle Analysis

The map's core is a visualization of the four phases of the adaptive cycle:

Release: This phase signifies a breakdown or collapse, often triggered by a disturbance or an accumulation of unaddressed problems, and is associated with negative emotions like disgust, fear, and anger. This zone is the outermost ring on the map, covering large parts of Ward No. 2, 6, 4, 5, 7, 8 and 9.

Reorganization: This phase represents innovation and renewal after a release, where the system reorganizes itself into a new state. This phase appears as small, scattered pockets, indicating that these are newly emerging areas or zones of revitalization.

Growth: This phase is associated with development, accumulation, and positive emotions like happiness and love. The map shows this phase as a central core, encompassing Ward No. 1, 2, 3, 6, and parts of 9. This suggests these areas, despite some negative emotions, are experiencing active growth.

Conservation: This phase represents stability and maturity, where the system has reached a peak of accumulated resources. On the map, this zone surrounds the "Growth" phase and includes portions of Ward No. 3, 4, 5, 6, 7, and 9.

Proposed Landuse Zoning based on this Outcome

The adaptive cycle map provides a powerful framework for strategic, dynamic zoning that goes beyond traditional land use.

- **Release Zone→ Transitional/Rural-Urban Interface:** The areas in the Release phase, which are often at the periphery, should be zoned as a **Transitional/Rural-Urban Interface**. These zones are at high risk of unmanaged sprawl and could benefit from strategic planning. Zoning here should include **agricultural preservation**, **eco-sensitive zones**, and **controlled low-density development** to manage the transition from rural to urban land use. The goal is to prevent a complete collapse of the agricultural landscape.
- **Reorganization Zone→ Institutional and Innovation Hubs:** The small, isolated areas in the Reorganization phase should be zoned for **Institutional and Special Purpose Use**. These zones represent opportunities for new development and innovation. This could include new public facilities, schools, hospitals, or innovation hubs that serve as catalysts for future growth and sustainable development.
- **Growth Zone → Mixed-Use Core with Modernization:** The areas identified in the Growth phase, particularly the dense central wards, should be zoned as a **Mixed-Use Core**. The planning here should focus on **compact development**, **infill projects**, and **modernizing**

infrastructure. The goal is to sustain the positive growth while addressing existing congestion and infrastructure issues.

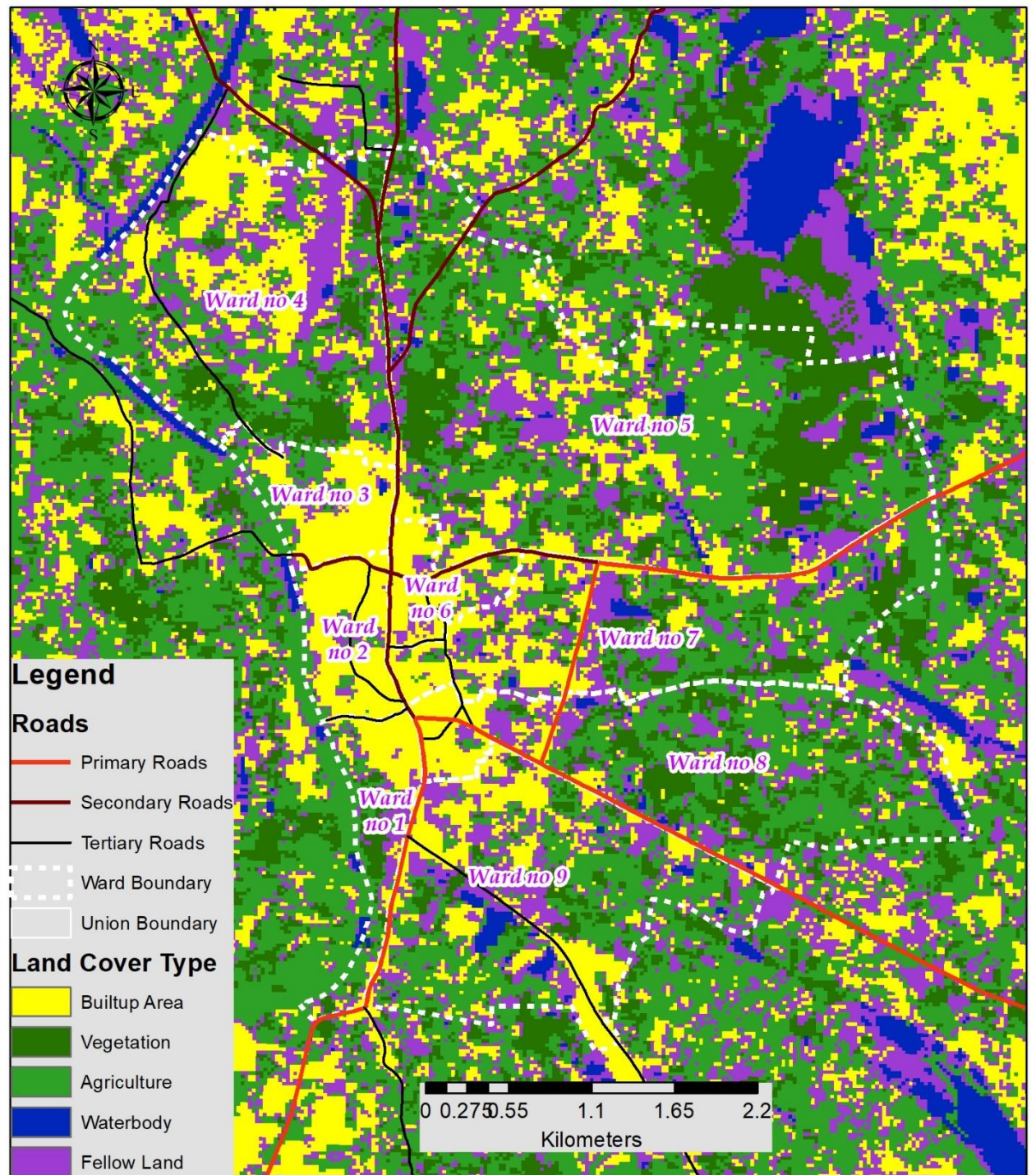
- **Conservation Zone → Residential Preservation with Upgrades:** The Conservation phase zones, which represent stable areas, should be zoned for **Residential Preservation**. The focus here is to maintain the existing character and quality of life while introducing targeted upgrades to infrastructure and amenities. This zoning would prevent unmanaged high-density development that could disrupt the established stability.

Land Cover Projection to 2043

Based on the land cover projections for 2043, we can propose a strategic zoning plan for Meherpur Pourashava:

- **Urban Expansion Zone:** The areas projected as a dense built-up area, particularly the central wards and land along the primary roads, should be zoned as an **Urban Expansion Zone**. This zone would be designated for high-density, mixed-use development, including commercial, residential, and institutional uses. The goal here is to manage the inevitable urban growth in a compact and organized manner.
- **Agricultural Preservation Zone:** The large areas of projected agricultural land, especially in Ward 9 and the eastern parts of Wards 7 and 8, should be zoned as an **Agricultural Preservation Zone**. This is crucial to protect the municipality's food security and rural livelihoods. Zoning regulations would restrict high-density urban development in these areas.
- **Green Belt and Conservation Zone:** The projected areas of vegetation and water bodies should be designated as a **Green Belt and Conservation Zone**. This zone would serve as the city's ecological lungs, providing recreational spaces, mitigating the heat island effect, and helping to manage urban drainage. Development in this zone would be restricted to low-impact recreational or institutional uses.
- **Transitional/Fellow Zone:** The areas of projected fellow land could be zoned as a **Transitional Zone**. This zone could be used as a land bank for future development, but with clear regulations to prevent unplanned sprawl. It could also be used for specific low-impact uses such as institutional campuses or agro-industrial facilities, providing a buffer between urban and rural areas.

Land Cover Projection to 2043

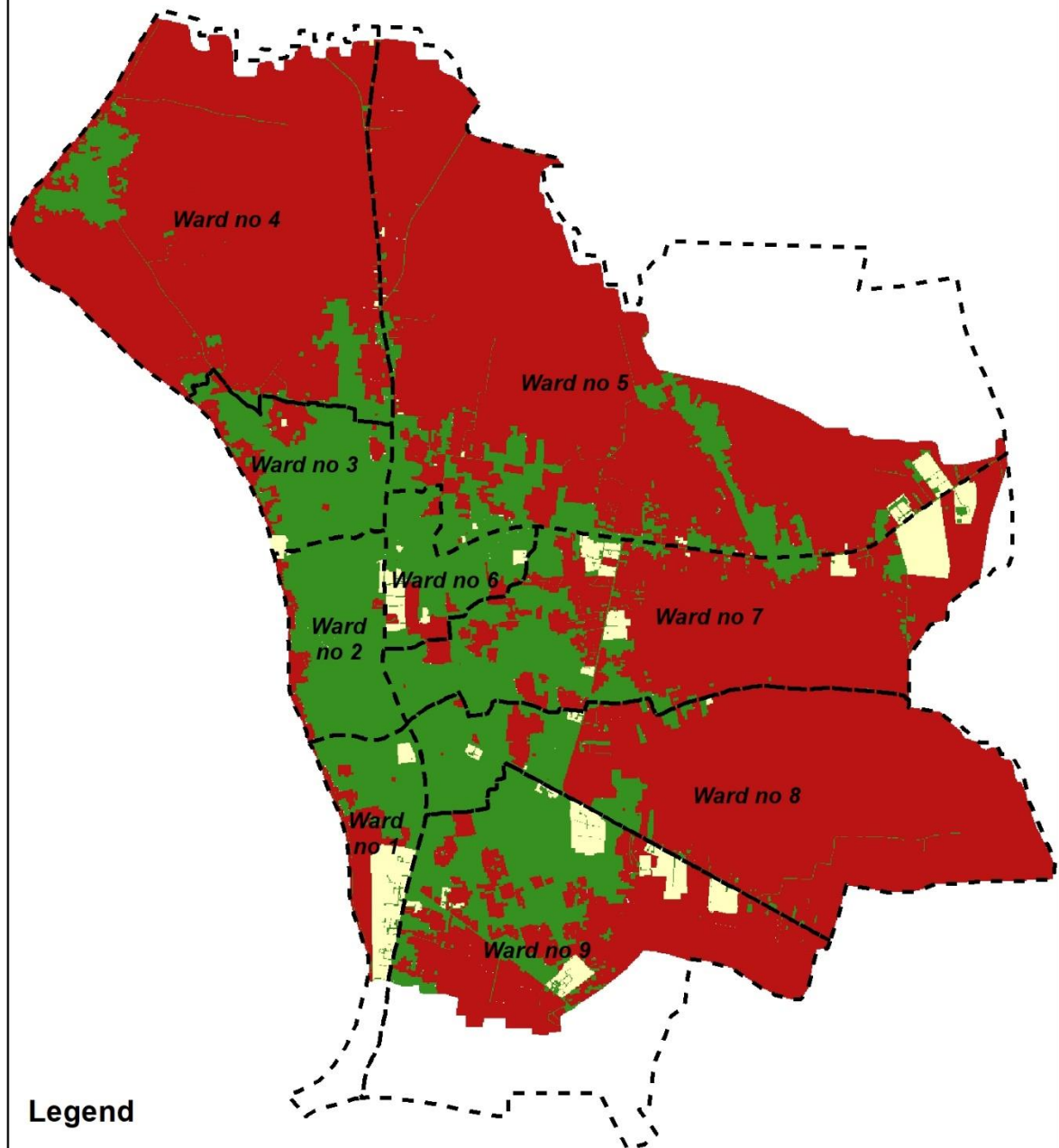


Urban Landuse Suitability Assessment

Based on this suitability assessment, a strategic land use plan can be proposed for Meherpur Paurashava that guides development in the most efficient and sustainable manner.

- **Urban Core and Expansion Zone (High Suitability):** The highly suitable areas, particularly in Wards 1, 2, 6, and along major road networks, should be designated as the Urban Core and Expansion Zone. This is where compact, mixed-use, and high-density development should be concentrated. Planning here should focus on revitalizing existing urban voids, improving infrastructure, and promoting vertical growth to accommodate the increasing urban population.
- **Green Belt and Conservation Zone (Less Suitability):** The vast less suitable areas should be zoned as a Green Belt and Conservation Zone. This proposal is crucial to protect these lands from unmanaged urban sprawl. It would preserve floodplains, agricultural land, and other ecologically sensitive areas. Development would be restricted to low-impact uses such as agriculture, eco-tourism, and recreational facilities that are compatible with the natural environment.
- **Transitional and Flexible Zone (Moderate Suitability):** The moderately suitable areas can be designated as a Transitional and Flexible Zone. These lands can serve as a buffer between the dense urban core and the green belt. Development here would be carefully controlled, allowing for specific types of low-density residential or institutional development that can be implemented with appropriate mitigation measures. This zone provides flexibility for future growth without encroaching on the most valuable conservation areas.

Urban Landuse Suitability Assessment Map



Legend

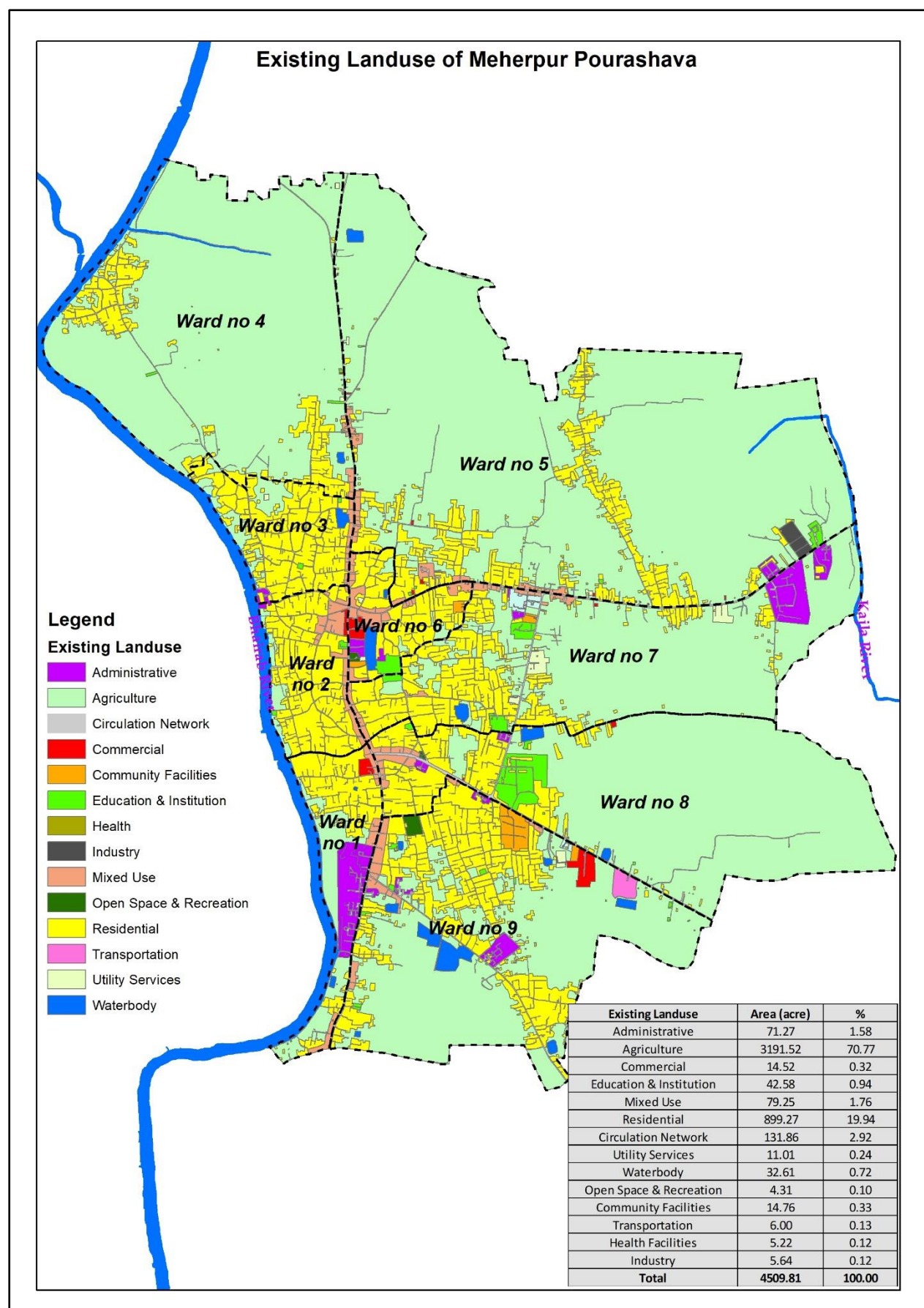
- Less Suitable
- Moderate Suitable
- High Suitable

Table 1: Overall Observation from Analysis

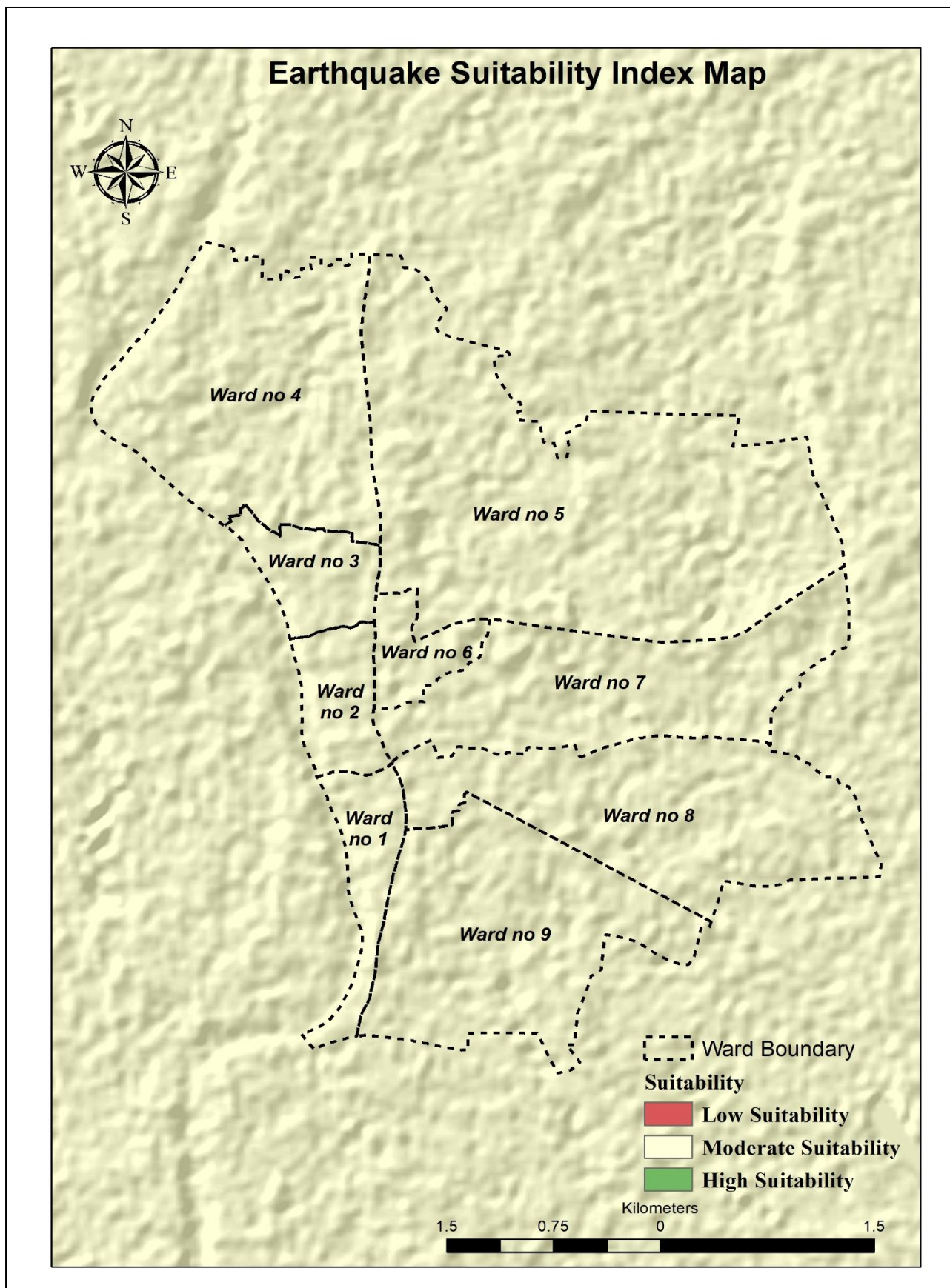
Analysis	Ward No.	Guideline from Analysis
PRA Outcome	1, 2, 9	Revitalization and Mixed-Use Core. Focus on urban regeneration, promoting mixed-use development with stricter regulations for waste management, sanitation, and public safety.
	4,8	Low-to-medium density Residential Zoning. Prioritize creating and preserving public amenities like parks, playgrounds, and community centers to promote positive social interactions
	5, 6, 7	Institutional or Special-purpose use. Include public facilities like schools, hospitals, and administrative offices. The zoning would require specific design guidelines to manage traffic, noise, and waste
Newspaper Emotional Analysis Outcome	1, 6, 9	Revitalization and Mixed-Use Core. Should be designated for Revitalization and Mixed-Use Zoning. This zone would prioritize urban regeneration projects, stricter waste management regulations, and enhanced public safety measures.
	4, 5, 8	Residential and Community Amenity Zone. Prioritize the creation and preservation of parks, playgrounds, and community centers to maintain the existing positive emotional landscape.
	7	Institutional and Special-Purpose Zone. Include public facilities like schools, hospitals, and government offices.
Individual Emotional Analysis Outcome from Mental Map	1, 9	Revitalization and Mixed-Use Core. Primary goal would be to transform urban voids and address their root causes by implementing strict waste management policies, improving drainage, and enhancing public safety and lighting.
	4, 5, 7, 8	Residential and Community Amenity Zone. To preserve the existing high quality of life by protecting green spaces, developing parks and recreational areas.
	2, 3, 6	Institutional and Transitional Zone. Would allow for the careful placement of public facilities, such as schools and clinics, while implementing specific design guidelines to manage new development.
Adaptive Cycle Analysis		Release Zone→ Transitional/Rural-Urban Interface. These zones are at high risk of unmanaged sprawl and could benefit from strategic planning. Zoning here should include agricultural preservation , eco-sensitive zones , and controlled low-density development to manage the transition from rural to urban land use.
		Reorganization Zone→ Institutional and Innovation Hubs. These zones represent opportunities for new development and innovation. This could include new public facilities, schools, hospitals, or innovation hubs that serve as catalysts for future growth

Analysis	Ward No.	Guideline from Analysis
		Growth Zone → Mixed-Use Core with Modernization. The planning here should focus on compact development , and modernizing infrastructure .
		Conservation Zone → Residential Preservation with Upgrades. The focus here is to maintain the existing character and quality of life while introducing targeted upgrades to infrastructure and amenities. This zoning would prevent unmanaged high-density development that could disrupt the established stability.
Land Cover Projection to 2043		The areas projected as a dense built-up area, particularly the central wards and land along the primary roads, should be zoned as an Urban Expansion Zone . This zone would be designated for high-density, mixed-use development, including commercial, residential, and institutional uses.
		The large areas of projected agricultural land, especially in Ward 9 and the eastern parts of Wards 7 and 8, should be zoned as an Agricultural Preservation Zone .
		The projected areas of vegetation and water bodies should be designated as a Green Belt and Conservation Zone . This zone would serve as the city's ecological lungs, providing recreational spaces, mitigating the heat island effect, and helping to manage urban drainage.
		The areas of projected fellow land could be zoned as a Transitional Zone . This zone could be used as a land bank for future development, but with clear regulations to prevent unplanned sprawl.
Urban Landuse Suitability Assessment		Urban Core and Expansion Zone (High Suitability). Along major road networks, should be designated as the Urban Core and Expansion Zone. This is where compact, mixed-use, and high-density development should be concentrated. Planning here should focus on revitalizing existing urban voids, improving infrastructure, and promoting vertical growth to accommodate the increasing urban population.
		Green Belt and Conservation Zone (Less Suitability). To protect these lands from unmanaged urban sprawl. It would preserve floodplains, agricultural land, and other ecologically sensitive areas. Development would be restricted to low-impact uses such as agriculture, eco-tourism, and recreational facilities that are compatible with the natural environment.
		Transitional and Flexible Zone (Moderate Suitability). The moderately suitable areas can be designated as a Transitional and Flexible Zone. These lands can serve as a buffer between the dense urban core and the green belt. Development here would be carefully controlled, allowing for specific types of low-density residential or institutional development

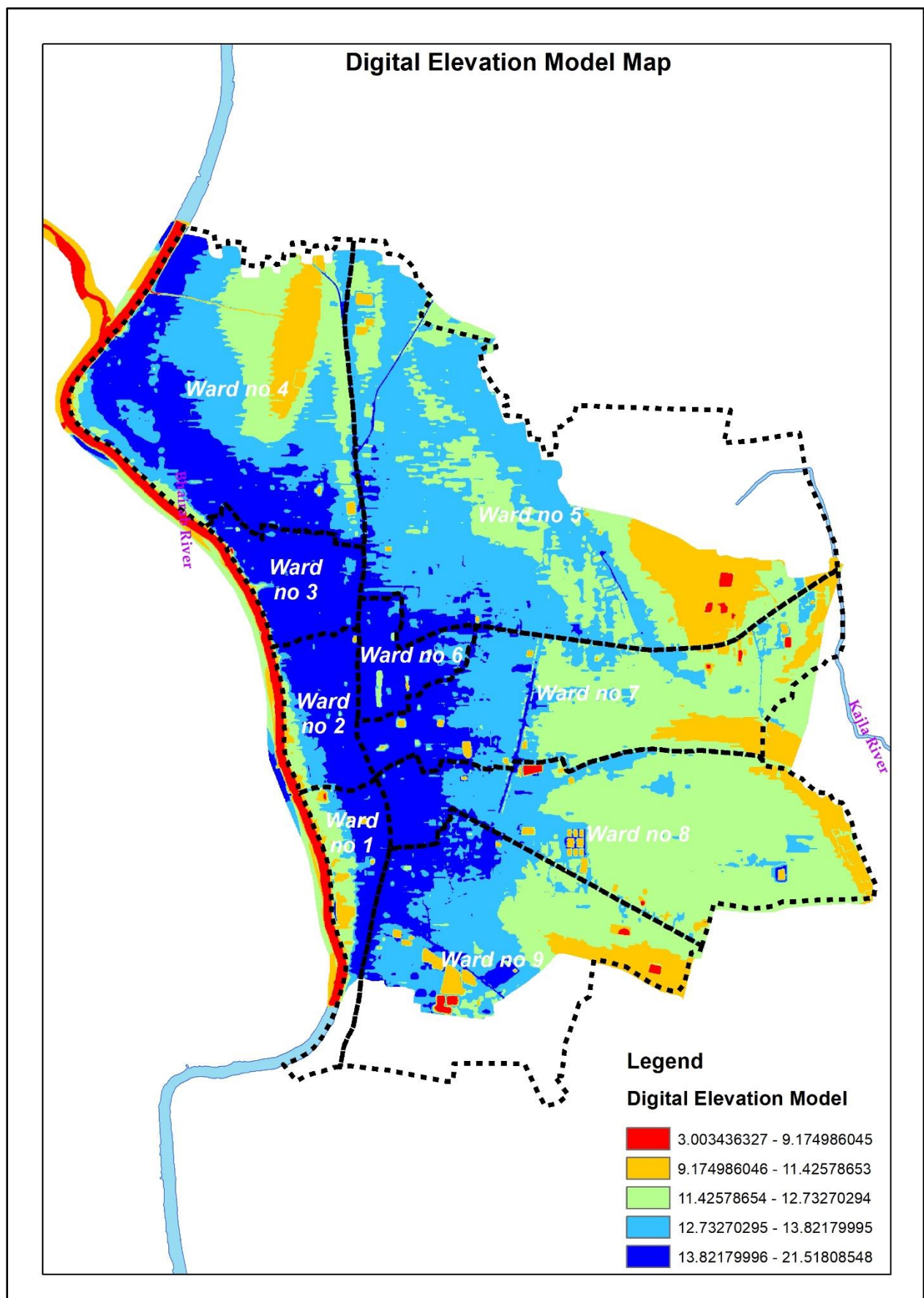
Existing Landuse Map of Meherpur Pourashava



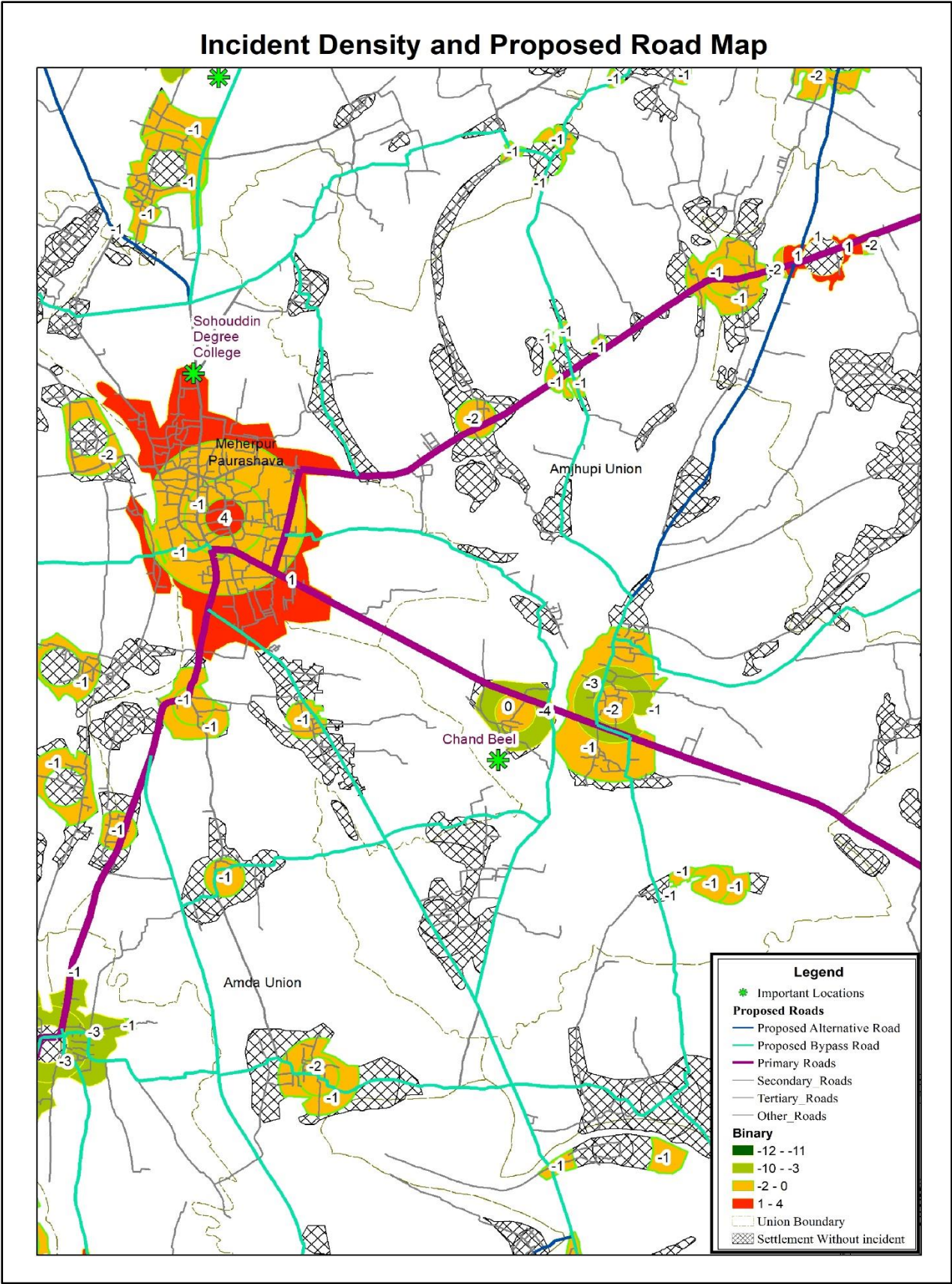
Earthquake Suitability Index Map of Meherpur Pourashava



Digital Elevation Model Map of Meherpur Pourashava



Incident Density and Proposed Road Map



Proposed Landuse Map

