



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-2**

**Collection of Secondary Data with the Direction of PD and Urban Planner  
and Preparation of Assessment Report**

**April 2025**

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Junior Urban Planner

This assessment report has been prepared as part of the development planning process for Meherpur and Gangni Pourashavas, under the supervision of the Project Director (PD) and Urban Planner of the Urban Development Directorate (UDD). The primary objective of this assignment was to collect and analyze relevant secondary data to evaluate existing land use patterns and identify key deficiencies across different urban service sectors. This process involved reviewing previous master plans, demographic data, land-use statistics, and relevant planning standards to estimate the current and future land requirements for each ward. The findings provide a foundational understanding of the spatial and infrastructural needs of these pourashavas, highlighting critical gaps in areas such as residential zoning, education, healthcare, open space, community services, and transport facilities. The collected data and subsequent analysis will guide the formulation of sustainable and context-specific development strategies for the future growth of the pourashava

# 1 Land Requirement Estimation of Meherpur Pourashava

## 1.1 Land Requirement Estimation for Ward No 1 of Meherpur Pourashava-

Year = 2025

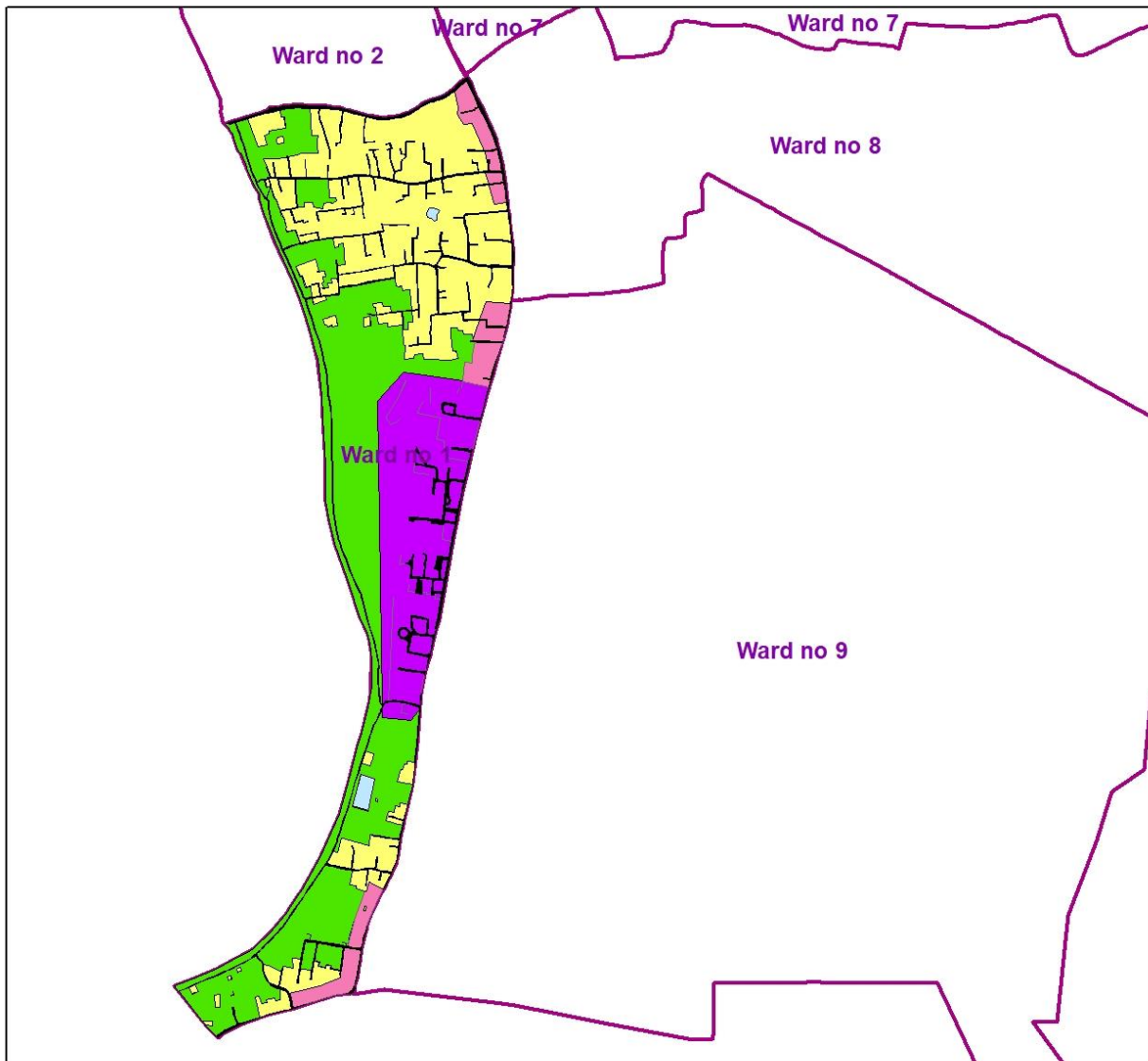
Population: 6645

**Housing** - General Residential: 49.88 Acre







Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Road Network	8.09	5.53				
Commercial	0	0.00	0.175 acre per 5000 Population	0.23	Insufficient	
Education & Institution	0	0.00	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	1.53	No Educational Facilities	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	6	No Open spaces	
Mixed Use	7.36	5.03				
Administrative	26.40	18.05				
Agricultural	53.86	36.81				
Utility Services	0	0.00	3 acres per 20000 population	1	Null	
Residential	49.88	34.09	1 acre per 95 population	69.95	Insufficient	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.50	Insufficient	
Health Facilities	0	0.00	3 acres per 10000 population	1.99	-	
Community Facilities	0	0.00	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires	5	Null	

			0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.			
Waterbody	0.71	0.49				

## Land Use Distribution Map of Meherpur (Ward 01)



### Existing Landuse

	Administrative		Road Network
	Agriculture		Waterbody
	Mixed Use		Residential

950 475 0 950 kilometers

## 1.2 Land Requirement Estimation for Ward No 2 of Meherpur Pourashava-

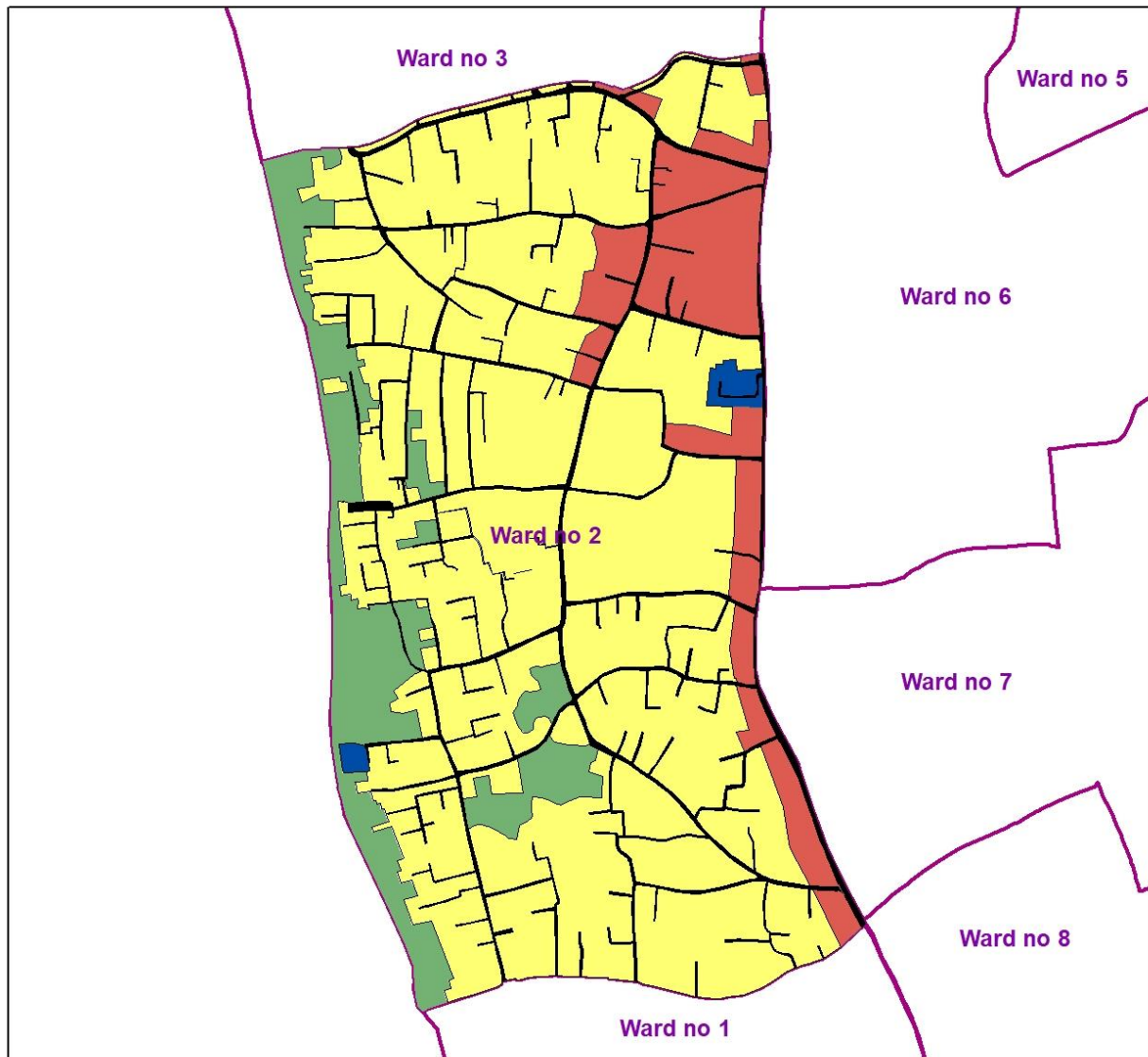
Year = 2025

Population: 4299

**Housing** - General Residential: 97.76 Acre

Existing Land-use	Area	Percentage	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Road Network	9.61	6.95			Insufficient
Commercial	0	0.00	0.15	Over	
Education & Institution	0.97	0.70	1.86	Insufficient	
Open Space & Recreation	0	0.00	0.43	Insufficient	Insufficient
Mixed Use	14.80	10.70			
Administrative	0	0.00			
Agricultural	15.16	10.96			
Residential	97.76	70.69			
Transport Facilities	0	0.00			
Health Facilities	0	0.00			
Community Facilities	0	0.00		Insufficient	Insufficient
Waterbody	0	0.00			

## Land Use Distribution Map of Meherpur (Ward 02)



### Landuse

- |  |   |
|--|---|
|  Education    |  Mixed Use   |
|  Agriculture  |  Residential |
|  Road Network |   |

520 260 0 520 kilometers



### 1.3 Land Requirement Estimation for Ward No 3 of Meherpur Pourashava-

Year = 2025

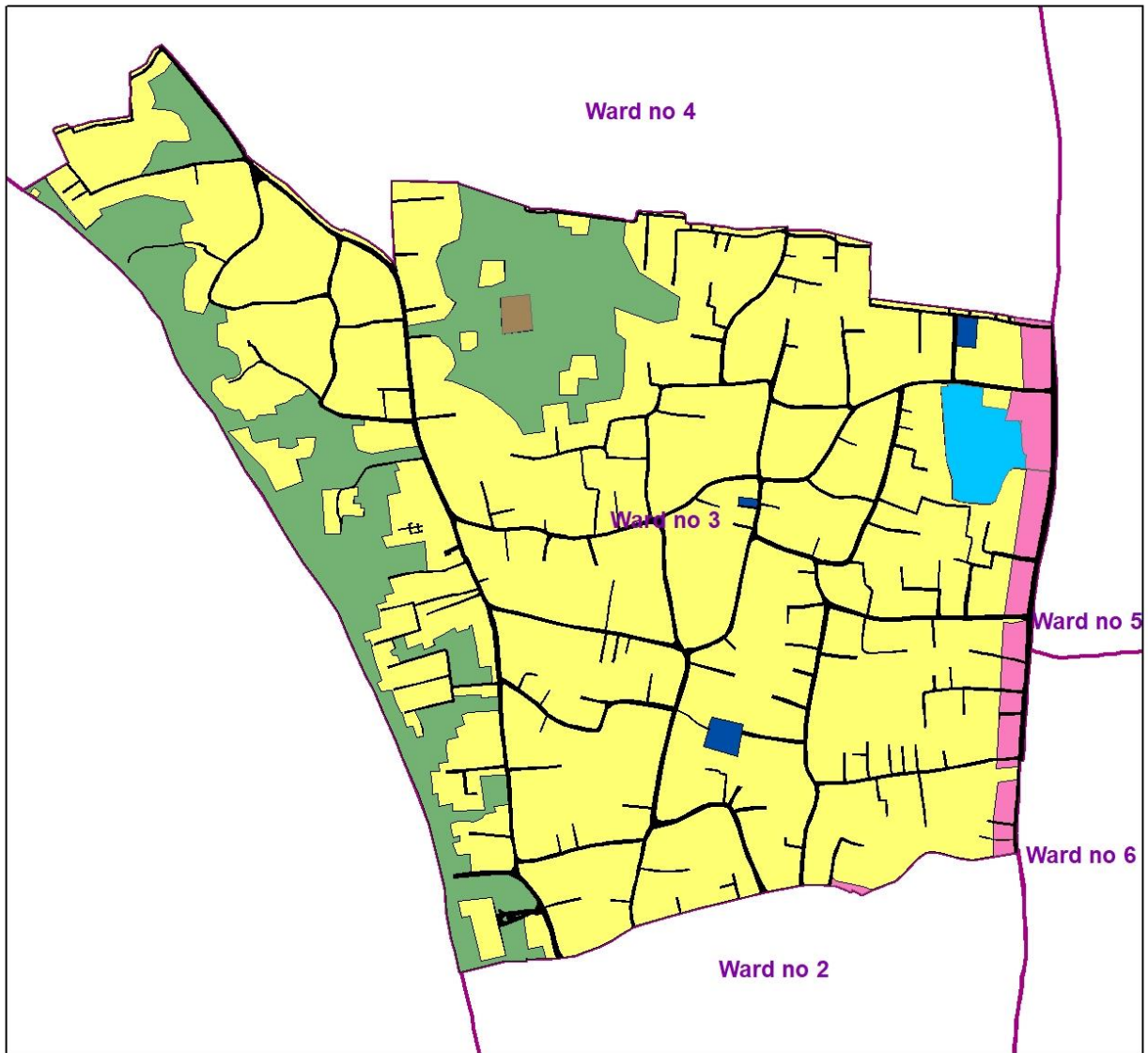
Population: 3449

**Housing** - General Residential 104.72 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	9.40	6.47		-		
Commercial	0	0.00	0.175 acre per 5000 Population	0.12	Insufficient	
Education & Institution	0.50	0.34	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	0.69	Nearly equal	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	0.34	Insufficient	
Mixed Use	3.49	2.40				
Administrative	0	0.00				
Agricultural	24.82	17.10				
Utility Services	0.28	0.19	3 acres per 20000 population	0.52	insufficient	
Residential	104.72	72.13	1 acre per 95 population	36.3	Over	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.26	Insufficient	
Health Facilities	0	0.00	3 acres per 10000 population	1.03	Insufficient	
Community Facilities	0	0.00	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	2.5	Insufficient	
Waterbody	1.97	1.36				



## Land Use Distribution Map of Meherpur (Ward 03)



### Landuse

	Mixed Use		Residential
	Waterbody		Road Network
	Agriculture		Utility Service
	Education		



#### 1.4 Land Requirement Estimation for Ward No 4 of Meherpur Pourashava-

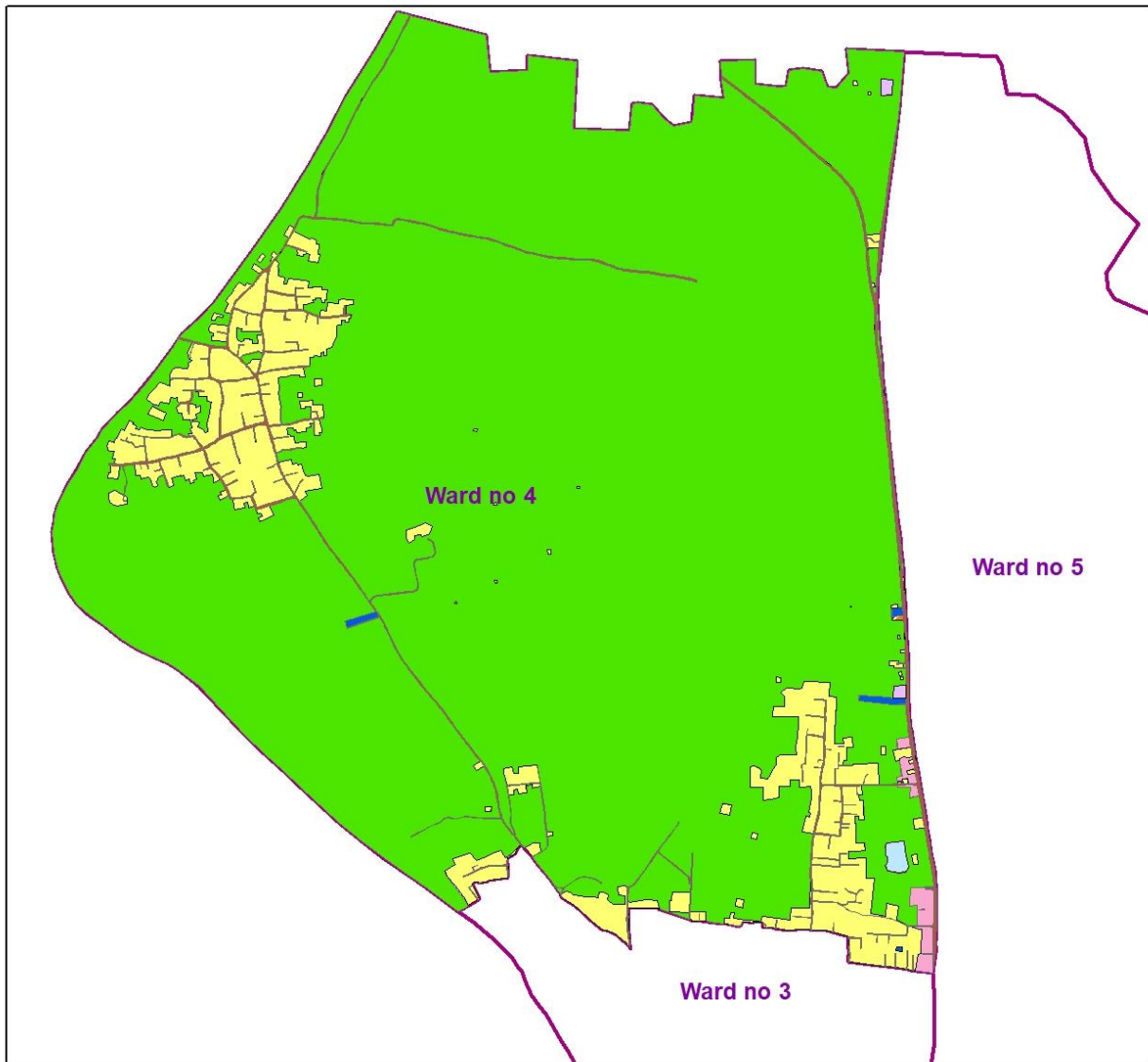
Year = 2025

Population: 6191

**Housing** - General Residential: 65.59 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	11.78	1.56				Insufficient
Commercial	0.077	0.01	0.175 acre per 5000 Population	0.21	Insufficient	
Education & Institution	0.79	0.10	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	1.2	Insufficient	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	0.6	Insufficient	
Mixed Use	2.55	0.34				
Administrative	0	0.00				
Agricultural	671.65	89.12				
Utility Services	0.44	0.06	3 acres per 20000 population	0.93	Insufficient	
Residential	65.59	8.70	1 acre per 95 population	65.17	Equal	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.46	Insufficient	Insufficient
Health Facilities	0	0.00	3 acres per 10000 population	1.86	Insufficient	
Community Facilities	0	0.00	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	3.5	Null	Insufficient
Waterbody	0.77	0.10				

## Land Use Distribution Map of Meherpur (Ward 04)



### Existing Landuse

 Agriculture	 Road Network
 Commercial	 Utility Service
 Education & Research	 Waterbody
 Mixed Use	 Road Circulation
 Residential	

1,000 500 0 1,000 kilometers

### 1.5 Land Requirement Estimation for Ward No 5 of Meherpur Pourashava-

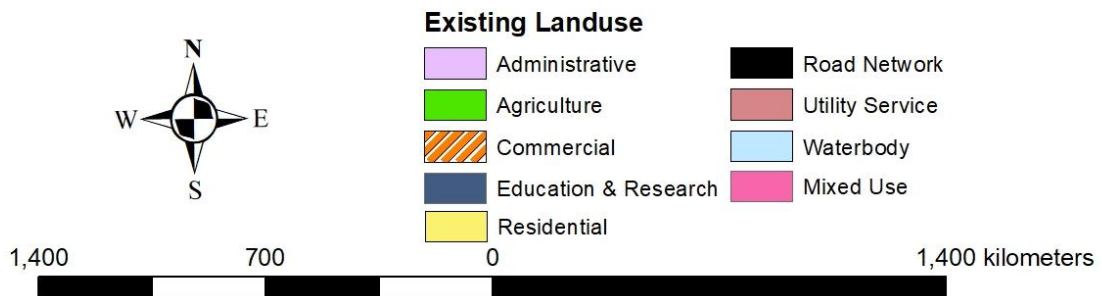
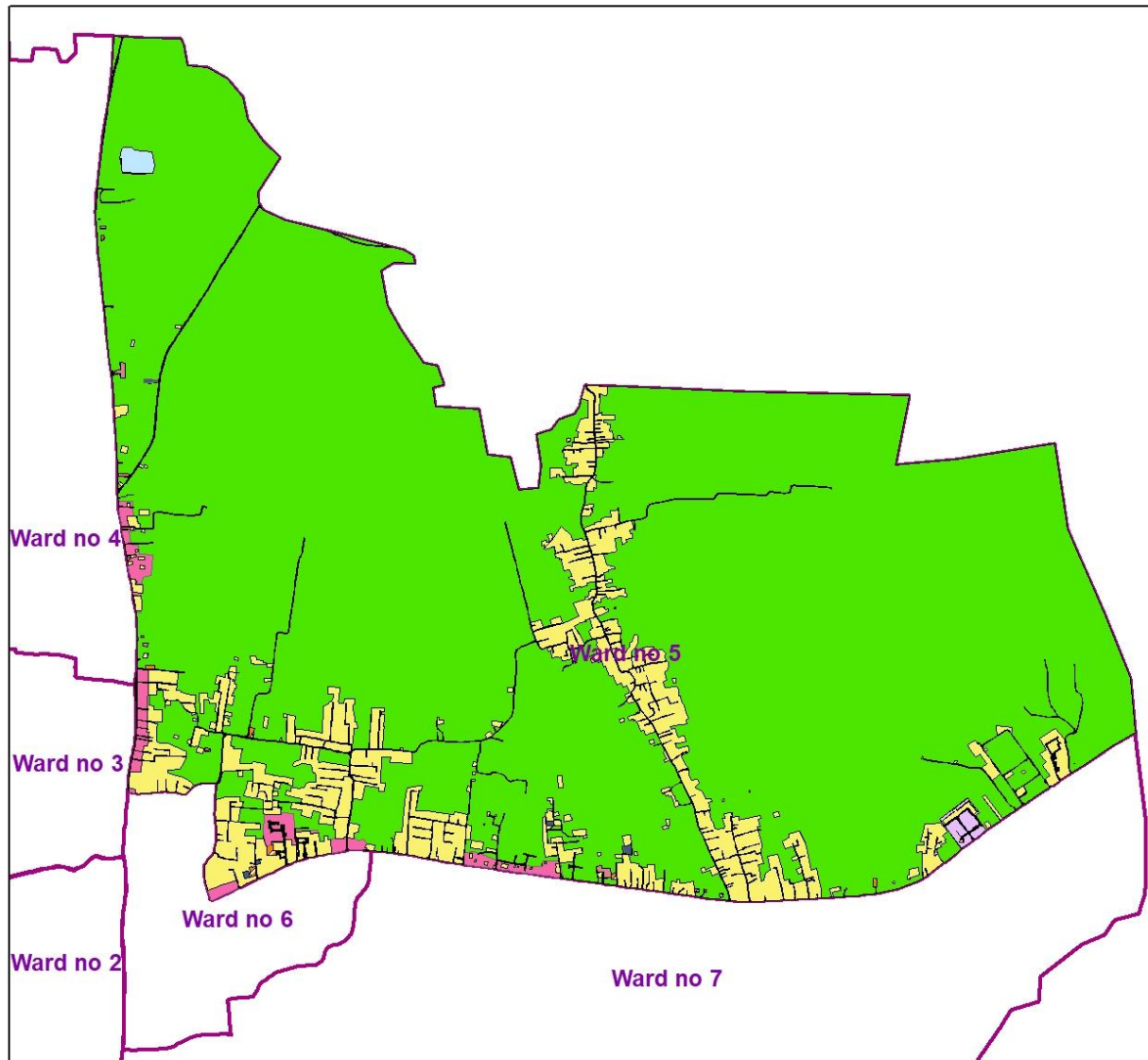
Year = 2025

Population: 2767

**Housing** - General Residential: 129.12 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	17.29	1.27				Insufficient
Commercial	0.93	0.07	0.175 acre per 5000 Population	0.16	Over	
Education & Institution	0.52	0.04	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	1.1	Insufficient	Insufficient
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	0.7	Insufficient	Insufficient
Mixed Use	12.02	0.88				
Administrative	2.29	0.17				
Agricultural	1176.38	86.60				
Utility Services	0.57	0.04	3 acres per 20000 population	0.69	insufficient	
Residential	129.12	9.51	1 acre per 95 population	48.38	Over	
Transport Facilities	0	0	1.5 acre per 20000 population		Insufficient	Insufficient
Health Facilities	0	0.00	3 acres per 10000 population	0	Insufficient	Insufficient
Community Facilities	0	0.00	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	2.9	Insufficient	
Waterbody	2.00	0.15				

## Land Use Distribution Map of Meherpur (Ward 05)



## 1.6 Land Requirement Estimation for Ward No 6 of Meherpur Pourashava-

Year = 2025

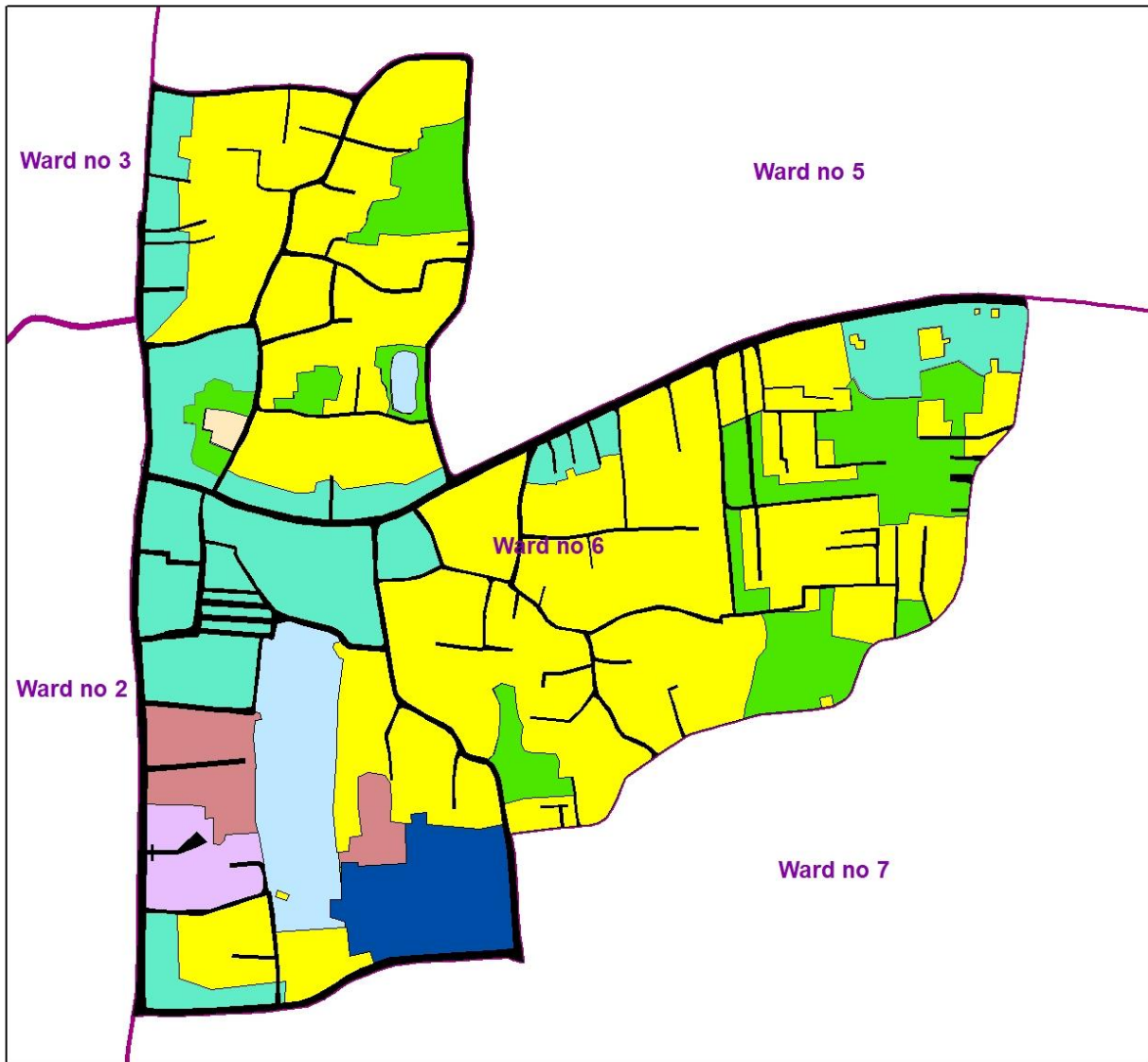
Population: 3749

**Housing** - General Residential: 50.51 Acre










Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	8.72	8.68				
Commercial	0	0.00	0.175 acre per 5000 Population	0.13	Over	
Education & Institution	3.91	3.89	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	0.79	Nearly equal	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	0.7	Insufficient	
Mixed Use	16.59	16.51				
Administrative	3.07	3.06				
Agricultural	10.53	10.48				
Utility Services	0.24	0.24	3 acres per 20000 population	0.56	insufficient	
Residential	50.51	50.26	1 acre per 95 population	39.47	Over	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.28	Insufficient	
Health Facilities	0	0.00	3 acres per 10000 population	1.13	Insufficient	
Community Facilities	1.93	1.92	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	2.1	Insufficient	
Waterbody	4.99	4.97				



## Land Use Distribution Map of Meherpur (Ward 06)



### Existing Landuse

	Administrative		Road Network
	Agriculture		Utility Service
	Community Facilities		Waterbody
	Education & Research		Residential
	Mixed Use		



## 1.7 Land Requirement Estimation for Ward No 7 of Meherpur Pourashava-

Year = 2025

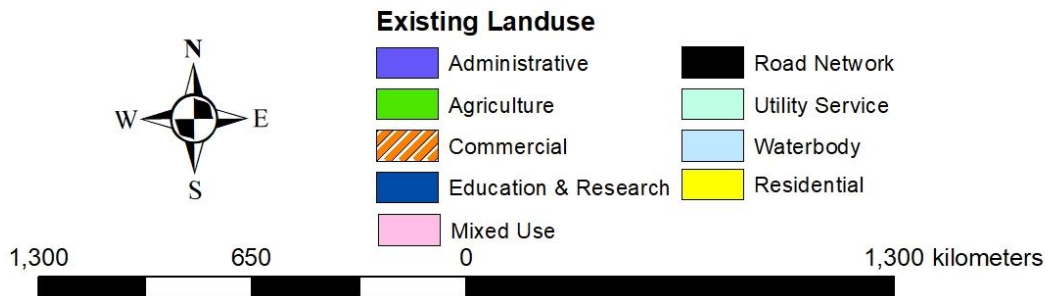
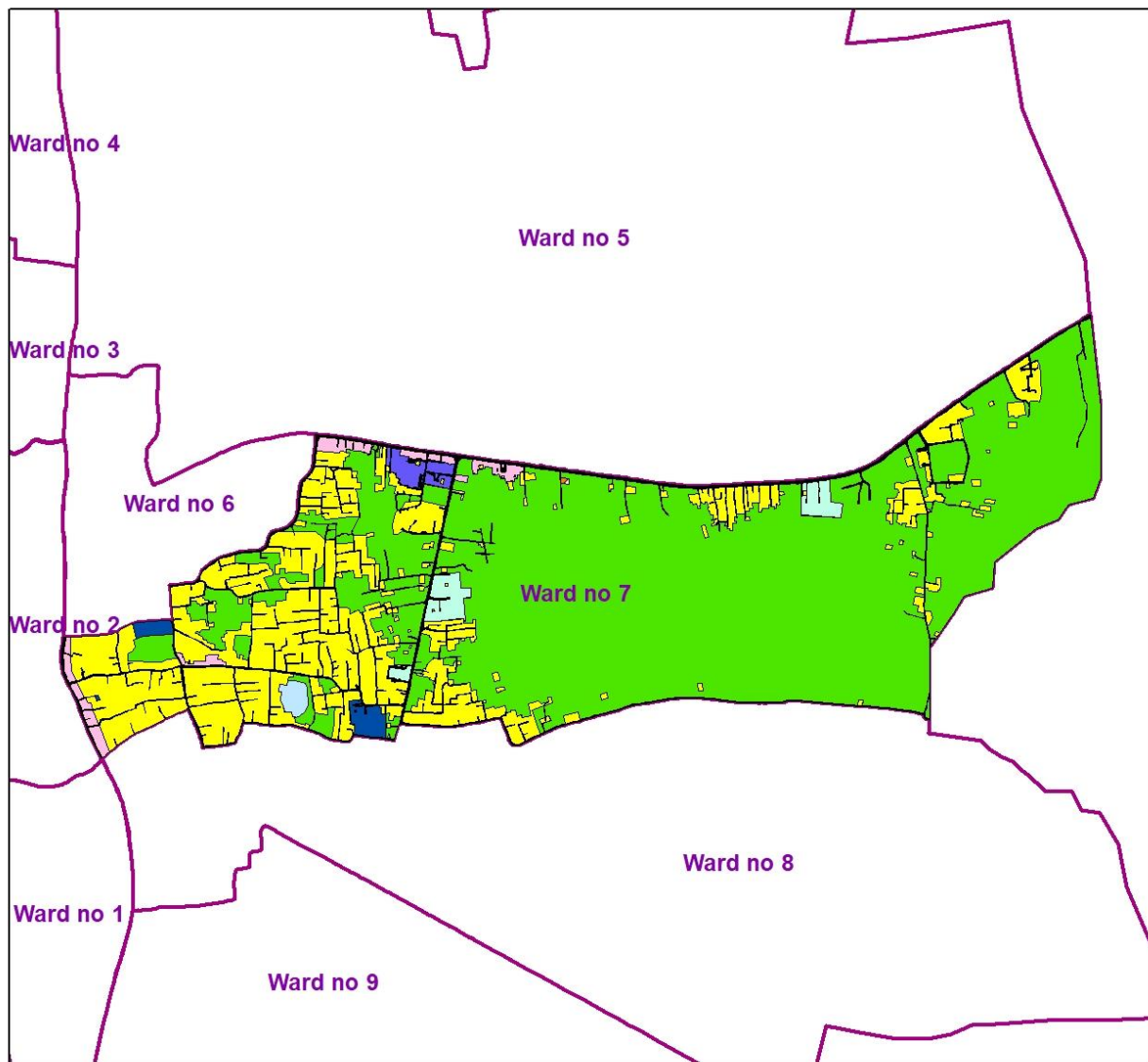
Population: 6870

**Housing** - General Residential: 138.84 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	25.54	4.46				
Commercial	0.11	0.02	0.175 acre per 5000 Population	0.24	Insufficient	
Education & Institution	4.13	0.72	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	4.81	Nearly equal	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	10.86	Insufficient	
Mixed Use	7.40	1.29				
Administrative	3.81	0.67				
Agricultural	382.96	66.89				
Utility Services	7.70	1.34	3 acres per 20000 population	1.03	insufficient	
Residential	138.84	24.25	1 acre per 95 population	72.42	Over	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.52	Insufficient	
Health Facilities		0.00	3 acres per 10000 population	2.06	Insufficient	
Community Facilities	0	0.00	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	2.06	Insufficient	
Waterbody	2.06	0.36				



## Land Use Distribution Map of Meherpur (Ward 07)



## 1.8 Land Requirement Estimation for Ward No 8 of Meherpur Pourashava-

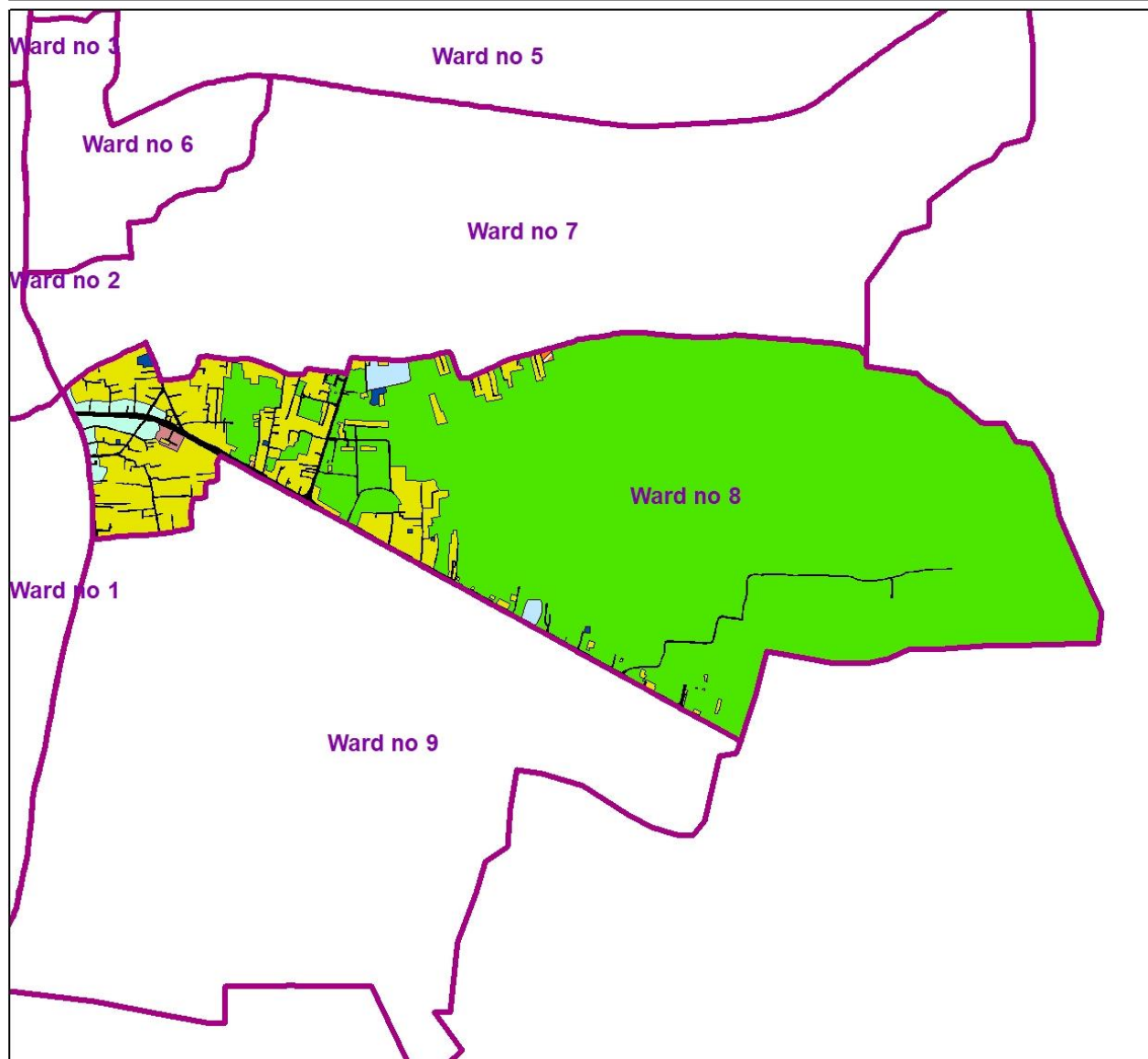
Year = 2025

Population: 4405

**Housing** - General Residential: 81.92 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	17.66	2.72				Insufficient
Commercial	0.43	0.07	0.175 acre per 5000 Population	0.15	Over	
Education & Institution	1.26	0.19	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.86	Insufficient	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	10.55	Insufficient	
Mixed Use	7.45	1.15				
Administrative	1.03	0.16				
Agricultural	535.05	82.48				
Utility Services	0	0.00	3 acres per 20000 population	0.66	insufficient	
Residential	81.92	12.63	1 acre per 95 population	46.37	Over	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.33	Insufficient	
Health Facilities	0	0.00	3 acres per 10000 population	1.32	Insufficient	
Community Facilities		0.00	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	1.32	Insufficient	Insufficient
Waterbody	3.87	0.60				

## Land Use Distribution Map of Meherpur (Ward 08)



### Existing Landuse

 Administrative	 Education & Research
 Agriculture	 Road Network
 Commercial	 Waterbody
 Residential	 Mixed Use



## 1.9 Land Requirement Estimation for Ward No 9 of Meherpur Pourashava-

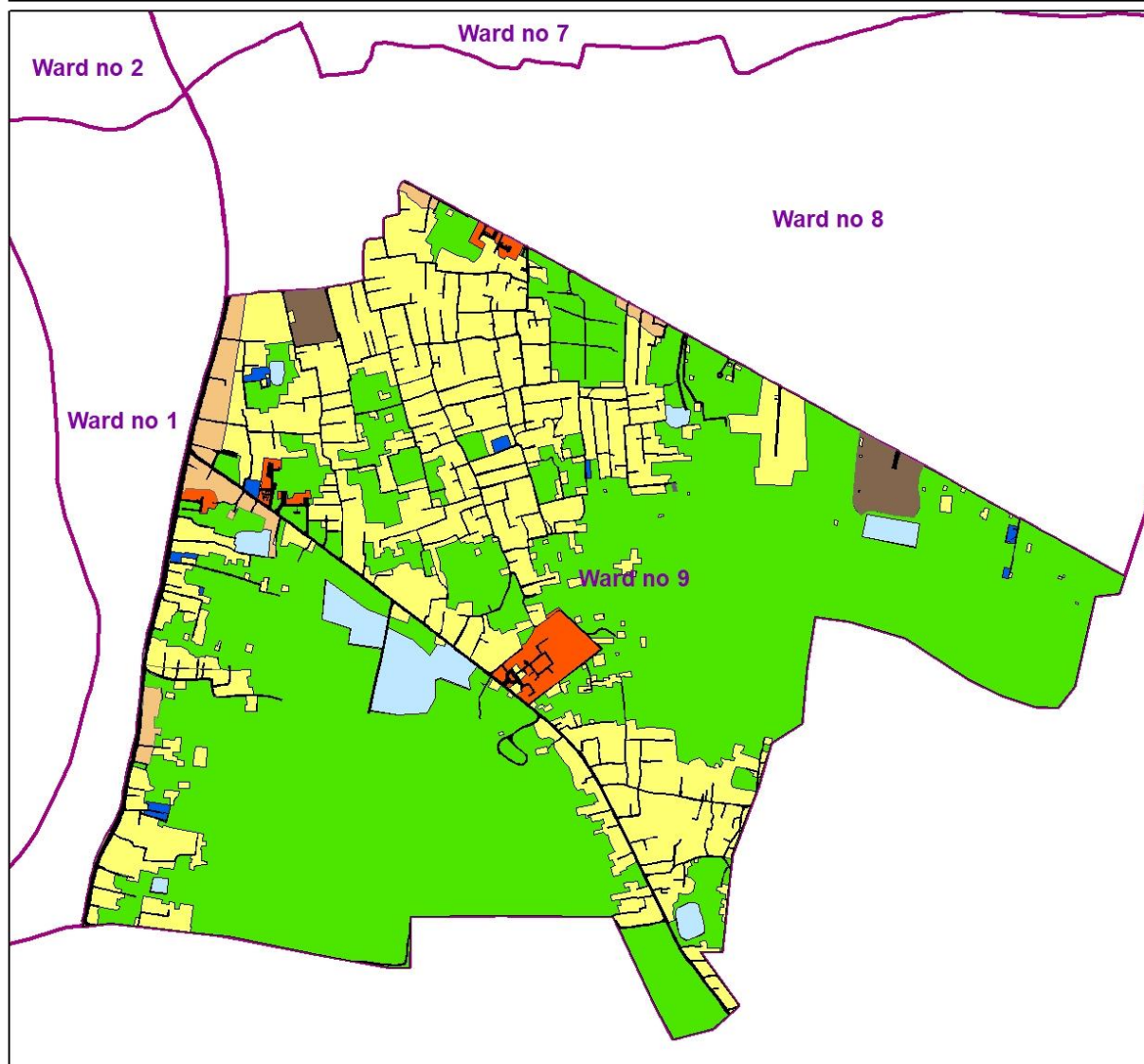
Year = 2025

Population: 6929

**Housing** - General Residential: 185.24 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	24.14	3.66				Insufficient
Commercial	0	0.00	0.175 acre per 5000 Population	0.24	Over	
Education & Institution	2.29	0.35	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	4.51	Insufficient	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre. Stadium 5-10 acre. Cinema Hall 0.5 acre/20000 population	10.86	Insufficient	Insufficient
Mixed Use	11.70	1.78				
Administrative	8.76	1.33				
Agricultural	401.30	60.92				
Utility Services	0	0.00	3 acres per 20000 population	1.04	insufficient	
Residential	185.24	28.12	1 acre per 95 population	72.94	Over	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.52	Insufficient	
Health Facilities		0.00	3 acres per 10000 population	2.08	Insufficient	
Community Facilities	9.07	1.38	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	2.08	Over	
Waterbody	6.20	2.46				

## Land Use Distribution Map of Meherpur (Ward 09)



### Landuse

Road Network	Residential
Administrative	Waterbody
Agriculture	Education & Research
Community Facilities	Mixed Use

1,000 500 0 1,000 kilometers

In Meherpur Pourashava, almost all wards show a significant surplus of residential land compared to actual requirements. However, there are severe shortages in essential services such as health facilities, transport infrastructure, open spaces and parks, community services, and utility provisions. Many wards lack educational institutions altogether or have far fewer than needed. While some wards have an excess of commercial and mixed-use land, this allocation appears unplanned and uneven. Agricultural land still occupies a considerable portion, particularly in peripheral areas. Overall, although residential land is over-allocated, there is a notable lack of basic urban amenities, pointing to an imbalance in land use and the need for better urban planning.

## 2 Land Requirement Estimation of Gangni Pourashava

### 2.1 Land Requirement Estimation for Ward No 1 of Gangni Pourashava-

Year = 2025

Population: 3289

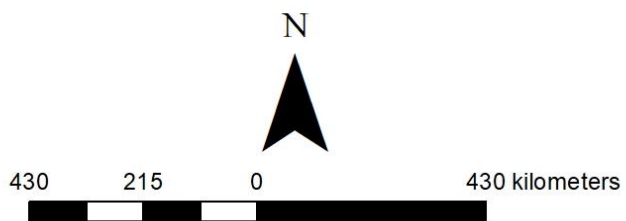
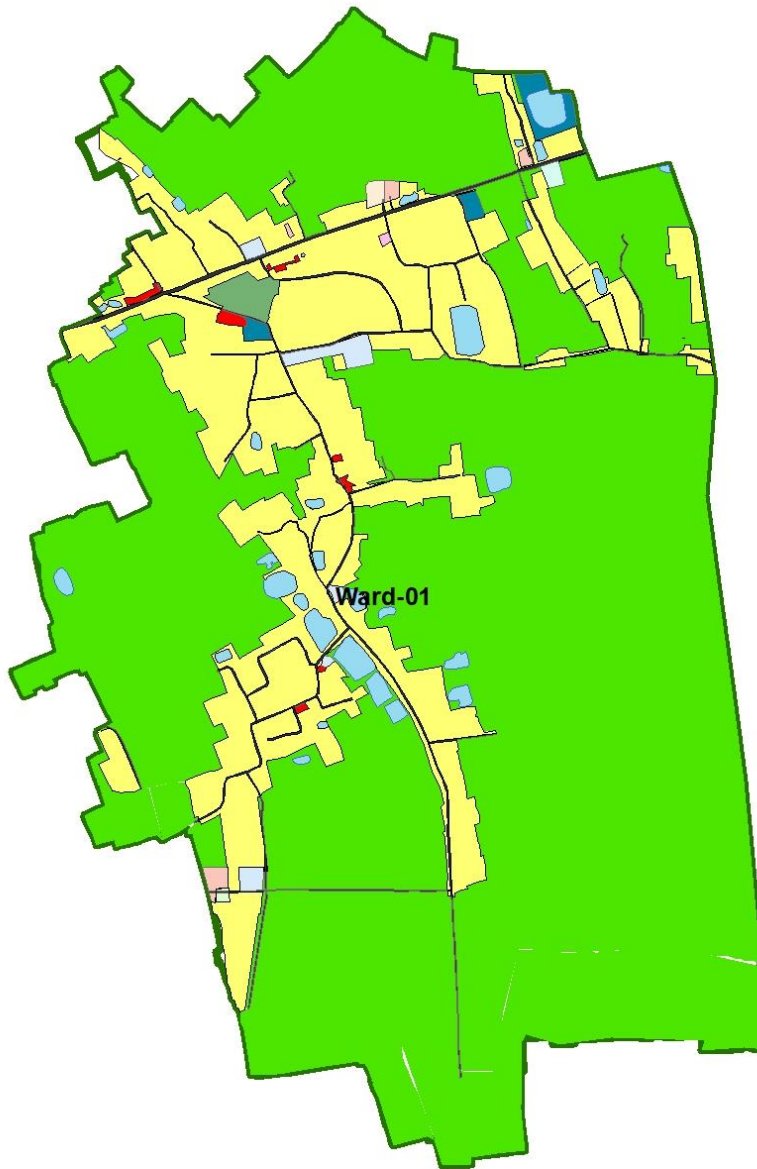
**Housing** - General Residential: 112.69 Acre






Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	7.53	1.45%		Nil		
Commercial	0.91	0.18%	0.175 acre per 5000 Population	0.115	sufficient	
Education & Institution	2.08	0.40%	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.30	Nearly equal	Insufficient
Open Space & Recreation	1.96	0.38%	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.41	Sufficient	Insufficient
Mixed Use	0.95	0.18%		Nil		
Administrative	0.10	0.02%		Nil		
Agricultural	380.06	73.28%		Nil		
Utility Services	0.38	0.07%	3 acres per 20000 population	0.49	Nearly equal	
Residential	112.69	21.73%	1 acre per 95 population	34.62	Over	
Transport Facilities	0.14	0.03%	1.5 acre per 20000 population	0.25	Insufficient	Insufficient
Health Facilities	0.38	0.07%	3 acres per 10000 population	0.99	Insufficient	Insufficient

Community Facilities	2.45	0.47%	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	0.74	Over	Insufficient
Waterbody	9.03	1.74%		Nil		



## Landuse Distribution Map of Gangni (Ward 01)



Landuse	
	Education & Institution
	Administrative
	Agricultural
	Circulation Network
	Commercial
	Community Facilities
	Health Facilities
	Mixed Use
	Open Space & Recreation
	Residential
	Transport Facilities
	Utility Services
	Waterbody

## 2.2 Land Requirement Estimation for Ward No 2 of Gangni Pourashava-

Year = 2025

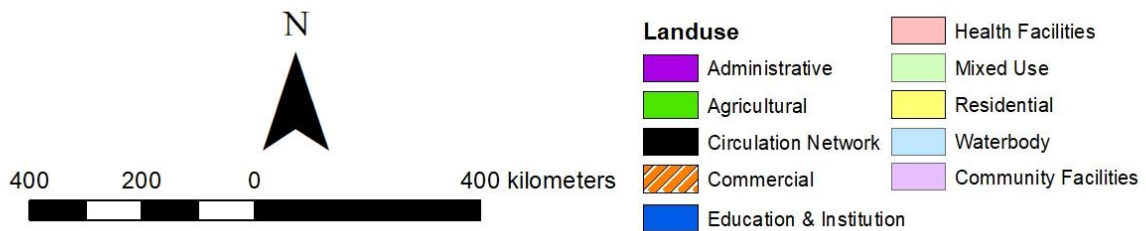
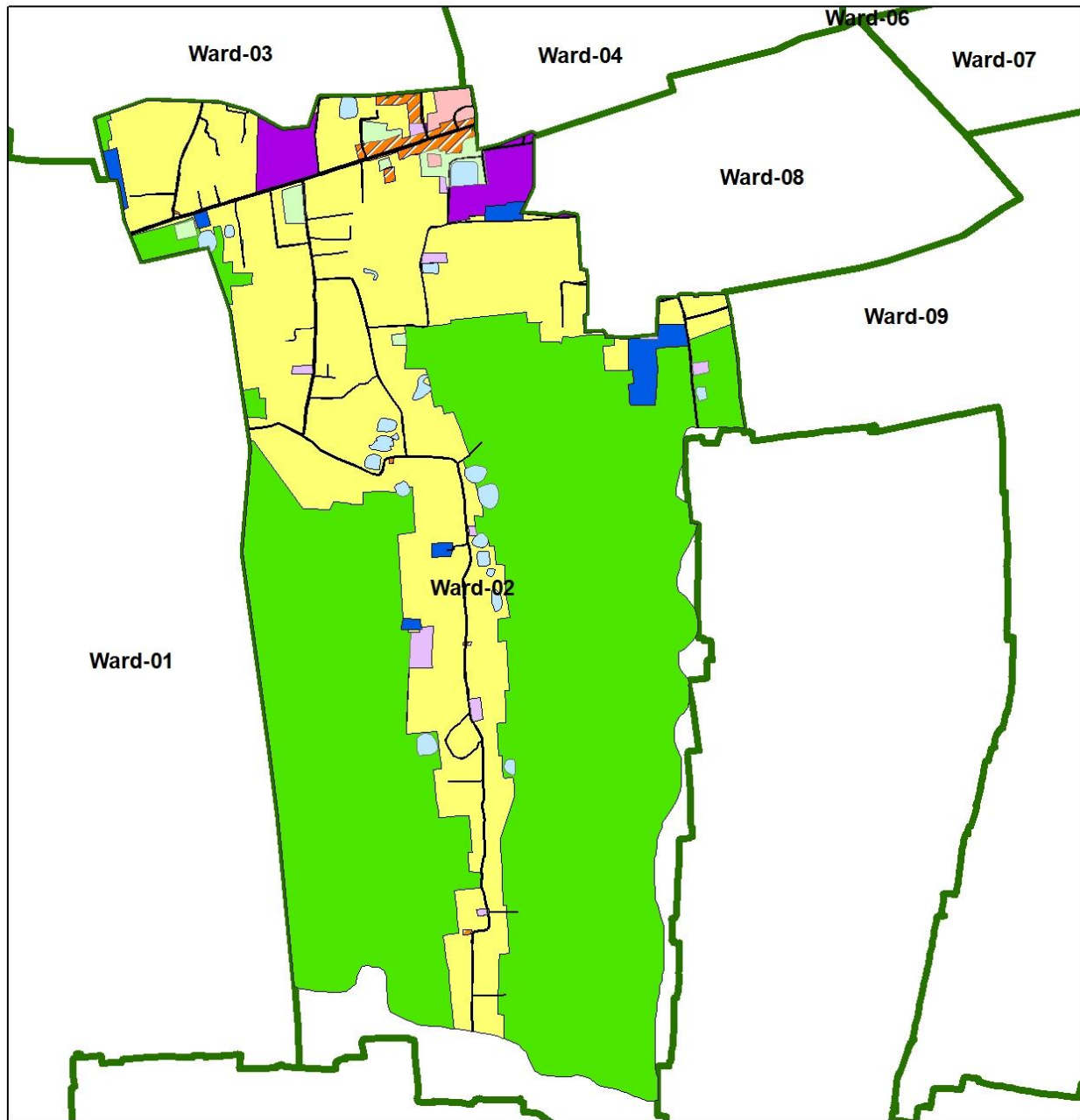
Population: 3303

**Housing** - General Residential: 112.69 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	Nil	Nil	Nil	Nil	Nil	
Commercial	0.91	0.18	0.175 acre per 5000 Population	0.116	Over	
Education & Institution	2.08	0.41	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.31	Nearly equal	
Open Space & Recreation	1.96	0.38	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.41	Over	Insufficient
Mixed Use	0.95	0.19		0.33	Over	
Administrative	0.10	0.02		0.08	Nearly equal	
Agricultural	380.06	74.36				
Utility Services	0.38	0.07	3 acres per 20000 population	0.49	insufficient	
Residential	112.69	22.05	1 acre per 95 population	34.77	Over	
Transport Facilities	0.14	0.03	1.5 acre per 20000 population	0.24	Insufficient	Insufficient
Health Facilities	0.38	0.07	3 acres per 10000 population	0.91	Insufficient	Insufficient
Community Facilities	2.45	0.48	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost	0.99	Over	Insufficient

			requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.			
Waterbody	9.03	1.77				

## Landuse Distribution Map of Gangni (Ward 02)



## 2.3 Land Requirement Estimation for Ward No 3 of Gangni Pourashava-

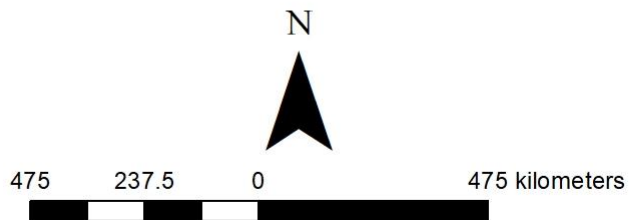
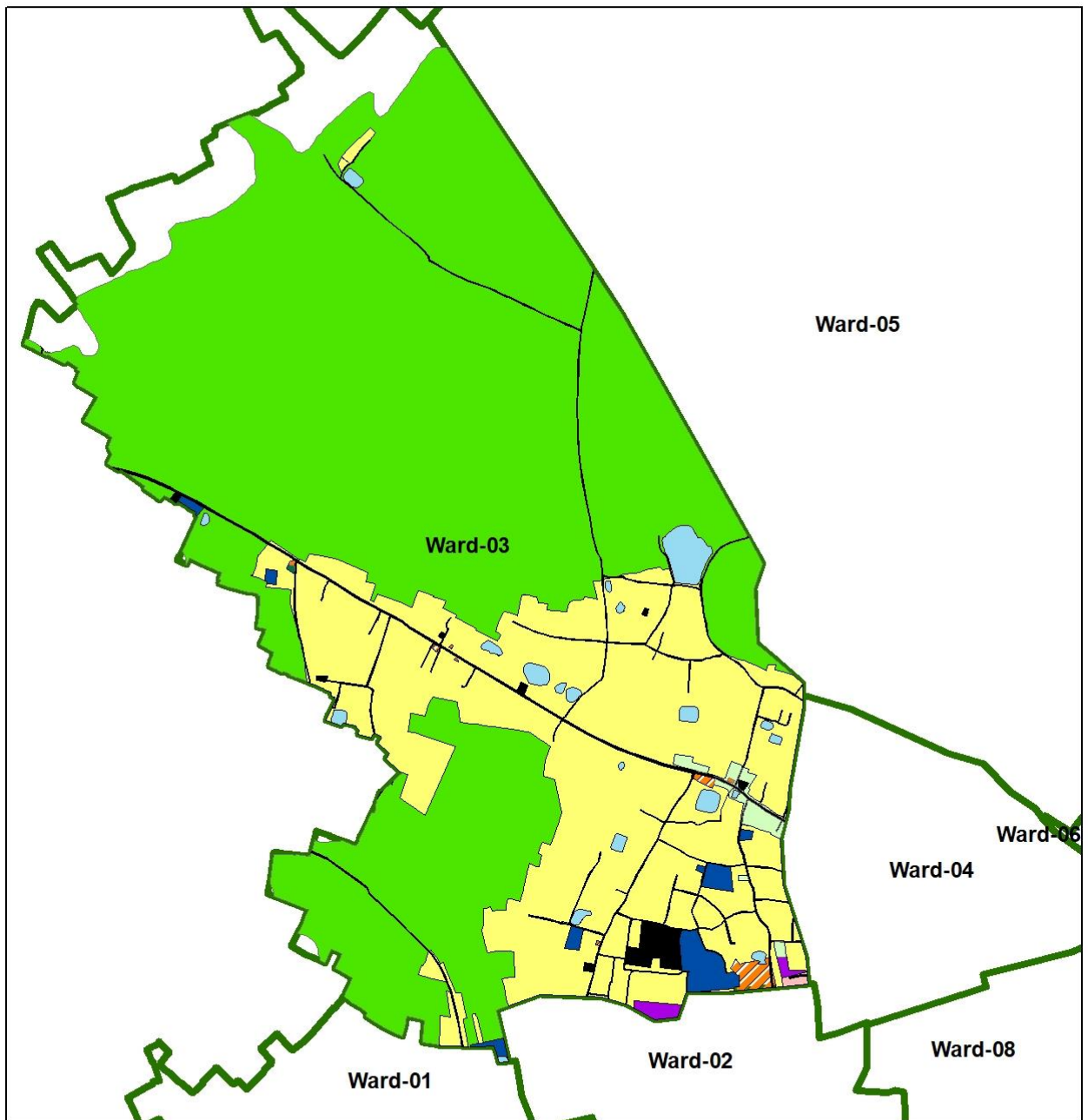
Year = 2025

Population: 4549

**Housing** - General Residential: 169.69 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	9.38	1.55				Insufficient
Commercial	1.83	0.30	0.175 acre per 5000 Population	0.116	Over	Insufficient
Education & Institution	5.69	0.94	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.3	Over	Insufficient
Open Space & Recreation	0.06	0.01	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.57	Insufficient	
Mixed Use	2.96	0.49				
Administrative	1.24	0.21				
Agricultural	403.10	66.66				
Utility Services		0.00	3 acres per 20000 population	0.68	insufficient	
Residential	169.69	28.06	1 acre per 95 population	47.88	Over	
Transport Facilities		0.00	1.5 acre per 20000 population	0.34	Insufficient	Insufficient
Health Facilities	0.34	0.06	3 acres per 10000 population	1.36	Insufficient	
Community Facilities	3.23	0.53	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	1.36	Insufficient	Insufficient
Waterbody	7.20	1.19				

## Landuse Distribution Map of Gangni (Ward 03)



Landuse	
Education & Institution	Health Facilities
Community Facilities	Mixed Use
Administrative	Open Space & Recreation
Agricultural	Residential
Circulation Network	Waterbody
Commercial	

## 2.4 Land Requirement Estimation for Ward No 4 of Gangni Pourashava-

Year = 2025

Population: 3855

**Housing** - General Residential: 61.99 Acre

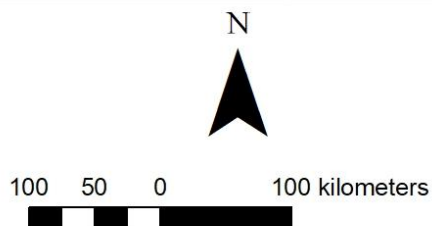
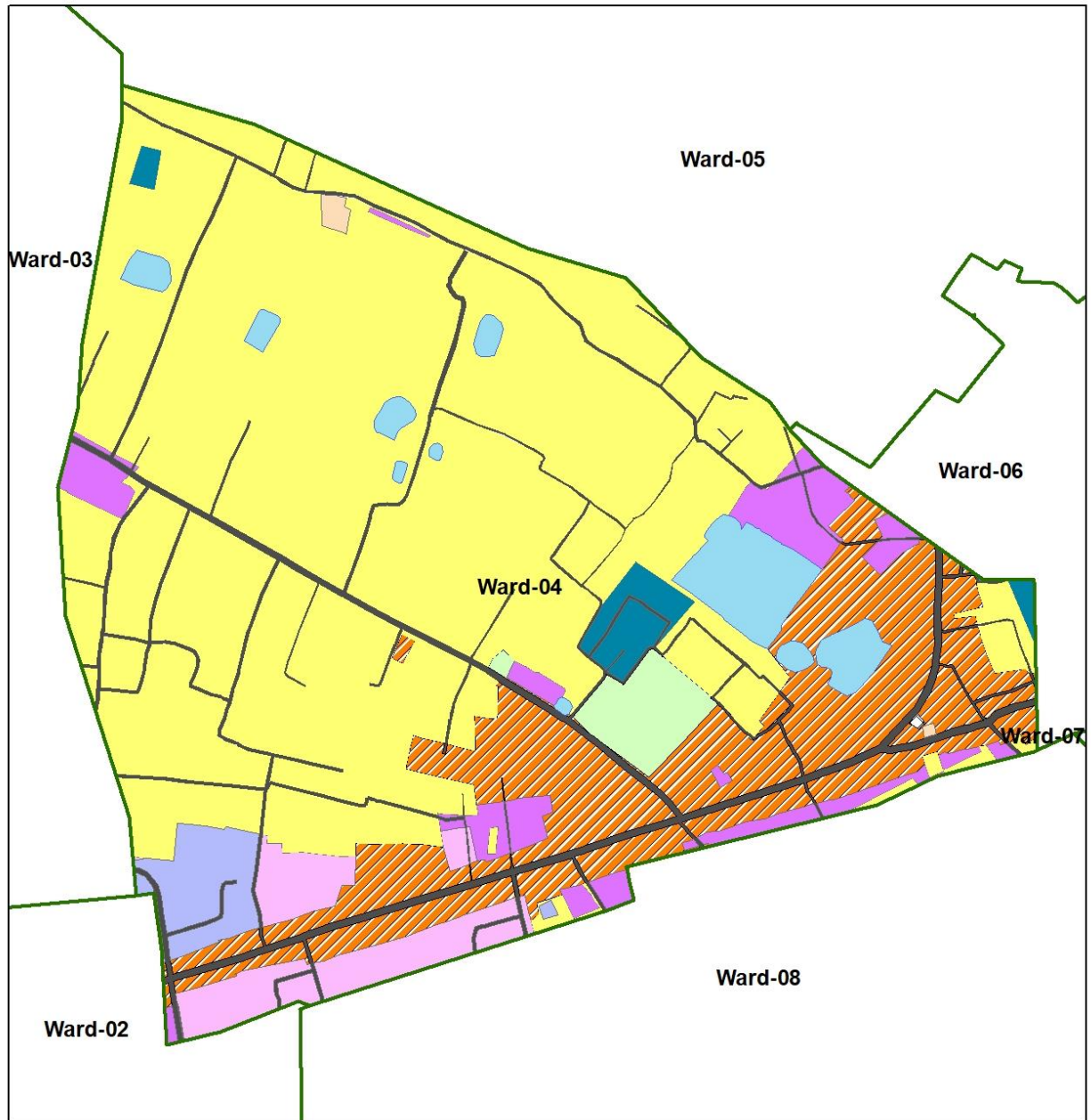
Landuse	Area	Standard	Requirement	Remarks
Circulation Network	6.21			
Commercial	16.83	0.175 acres for the commercial lands per 5000 population.	1.It needs 0.13 acre of commercial land for serving the purpose of the locals	Ward no 4 has over commercial land.
Education & Institution	1.47	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	1. It need 0.77 acre for primary school 2. It need minimum 0.77 acres for High schools 3. It need 0.96 acre for university	As per the standard the educational facility of ward no 4 is comparatively low. It is nearly half of the requirement.
Open Space & Recreation	1.81	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.33 Acre	Sufficient for the entire ward
Mixed Use	4.42			
Administrative	3.83			
Residential	61.99			
Transport Facilities	0.024			
Health Facilities	2.00			
Community Facilities	0.18	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or	0.19 Acre	It needed 0.19 acre for this ward. But it has 0.96-acre land for community facilities. So it is insufficient












		outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.		
Waterbody	3.58			

Existing Land-use	Area	Percentage	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	6.21	6.07%			Insufficient
Commercial	16.83	16.44%	0.13 acre	Over	
Education & Institution	1.47	1.44%	2.5 acres	Insufficient	
Open Space & Recreation	1.81	1.77%	0.33 acres	Insufficient	Insufficient
Mixed Use	4.42	4.32%			
Administrative	3.83	3.74%			
Residential	61.99	60.57%			
Transport Facilities	0.024	0.02%			
Health Facilities	2.00	1.95%			Insufficient
Community Facilities	0.18	0.18%	0.19 acres	Sufficient	Insufficient
Waterbody	3.58	3.50%			



## Laduse Distribution Map of Gangni (Ward 04)



Landuse	
	Administrative
	Circulation Network
	Waterbody
	Transport Facilities
	Residential
	Commercial
	Community Facilities
	Education & Institution
	Health Facilities
	Mixed Use
	Open Space & Recreation

## 2.5 Land Requirement Estimation for Ward No 5 of Gangni Pourashava-

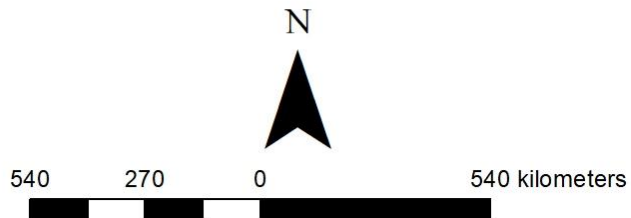
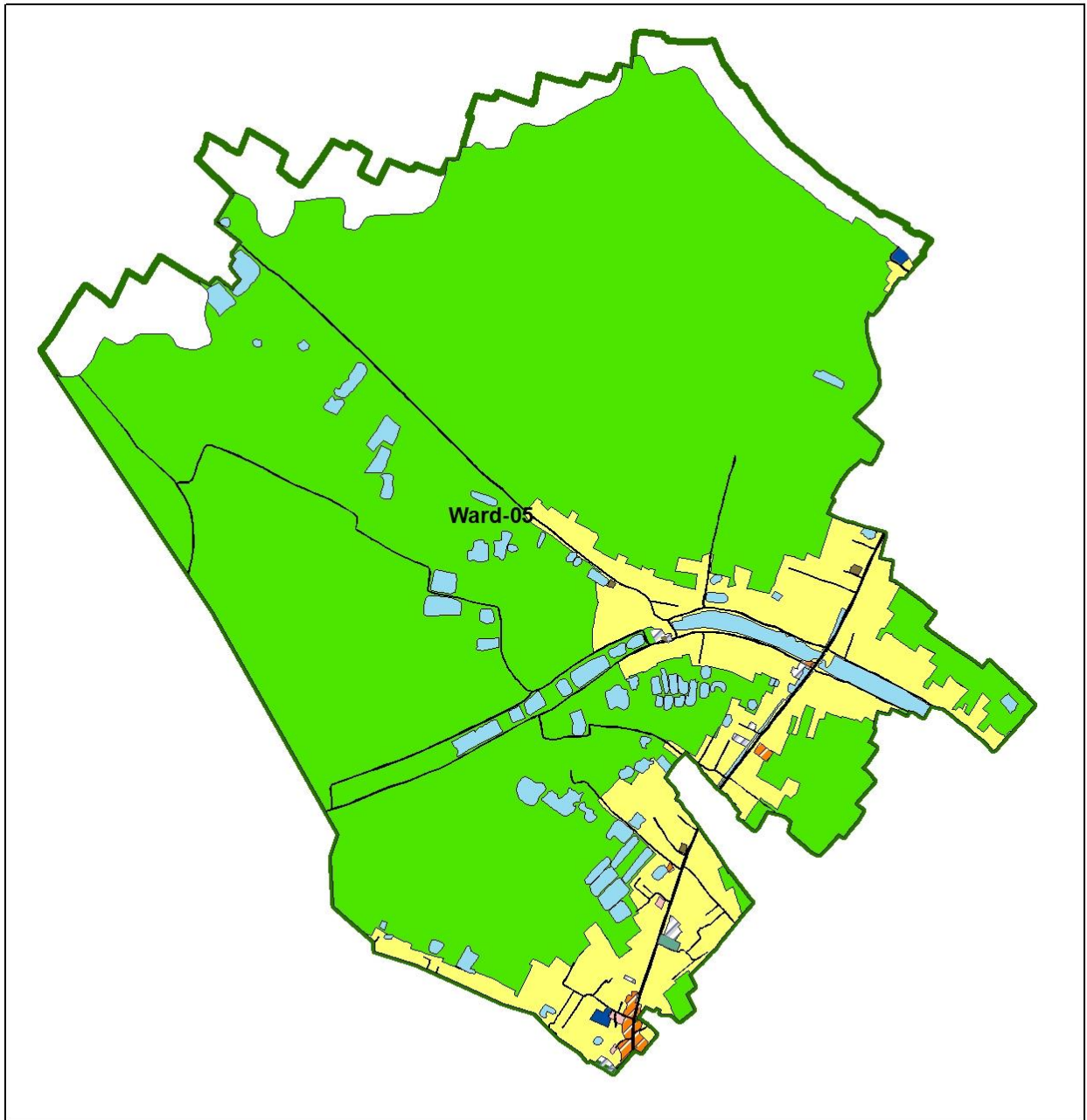
Year = 2025



Population: 2941

**Housing** - General Residential: 122.02 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	10.47	1.12%				Insufficient
Commercial	2.14	0.23%	0.175 acre per 5000 Population	0.103	Over	
Education & Institution	0.73	0.08%	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.06	Insufficient	
Open Space & Recreation	0	0.00%	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.37	Insufficient	
Mixed Use	1.64	0.18%				
Administrative		0.00				
Agricultural	753.37	80.89%				
Utility Services	0.36	0.04%	3 acres per 20000 population	0.11	sufficient	
Residential	122.02	13.10%	1 acre per 95 population	30.95	Over	
Transport Facilities		0.00	1.5 acre per 20000 population	0.22	Insufficient	Insufficient
Health Facilities	0.36	0.04%	3 acres per 10000 population	0.88	Insufficient	Insufficient
Community Facilities	0.36	0.04%	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	0.88	Insufficient	Insufficient
Waterbody	39.94	4.29%				

## Landuse Distribution Map of Gangni (Ward 05)



Landuse	
	Community Facilities
	Agricultural
	Circulation Network
	Commercial
	Education & Institution
	Health Facilities
	Mixed Use
	Residential
	Utility Services
	Waterbody

## 2.6 Land Requirement Estimation for Ward No 6 of Gangni Pourashava-

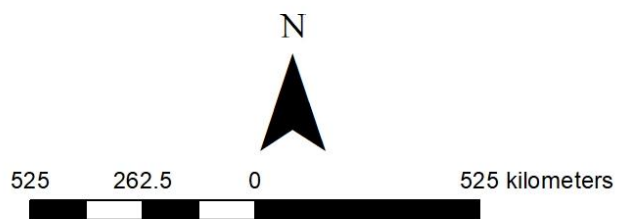
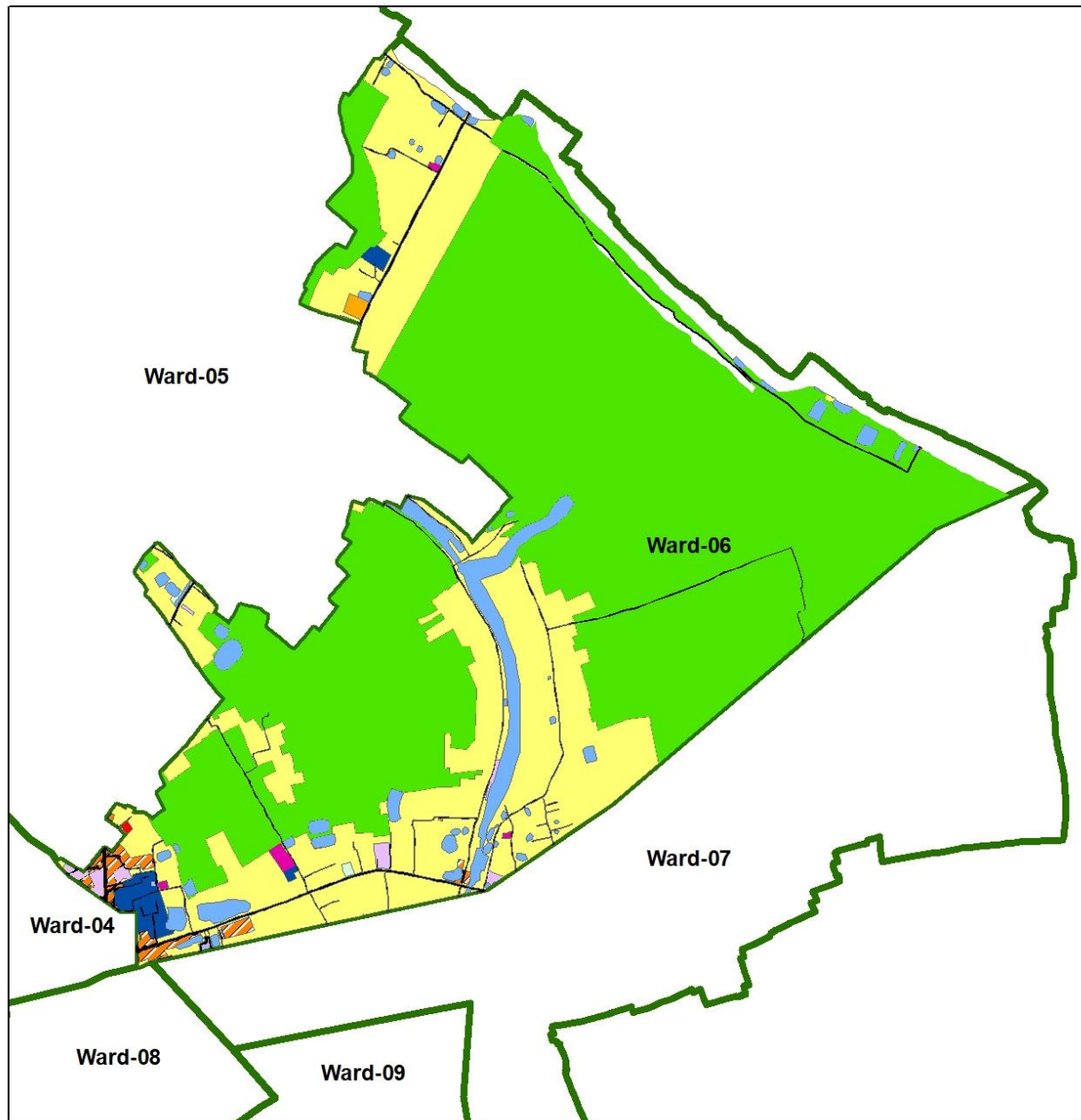
Year = 2025

Population: 2767

**Housing** - General Residential: 153.86 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	10.08	1.71%				
Commercial	4.55	0.77%	0.175 acre per 5000 Population	0.10	Over	
Education & Institution	4.42	0.75%	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	1.94	Nearly equal	Insufficient
Open Space & Recreation	0	0	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0	Insufficient	Insufficient
Mixed Use	0	0		0		
Administrative	0	0		0		
Agricultural	392.57	66.40%				
Utility Services	0.69	0.12%	3 acres per 20000 population	0.41	insufficient	
Residential	153.86	26.03%	1 acre per 95 population	29.13	Over	
Transport Facilities	0	0	1.5 acre per 20000 population	Nil	Insufficient	Insufficient
Health Facilities	0	0	3 acres per 10000 population	Nil	Insufficient	
Community Facilities	0.95	0.16%	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	0.55	Over	Insufficient
Waterbody	24.07	4.07%				

## Landuse Distribution Map of Gangni (Ward 06)



### Landuse

Education & Institution	Industrial
Administrative	Mixed Use
Agricultural	Residential
Circulation Network	Utility Services
Commercial	Waterbody
Community Facilities	Health Facilities



## 2.7 Land Requirement Estimation for Ward No 7 of Gangni Pourashava-

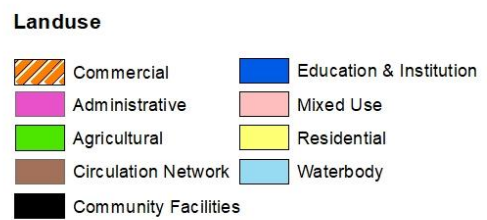
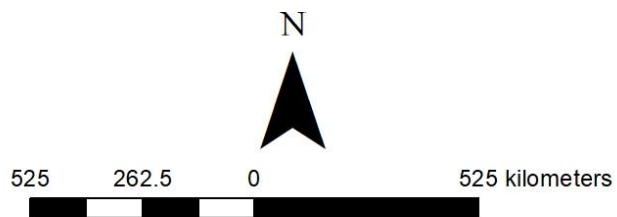
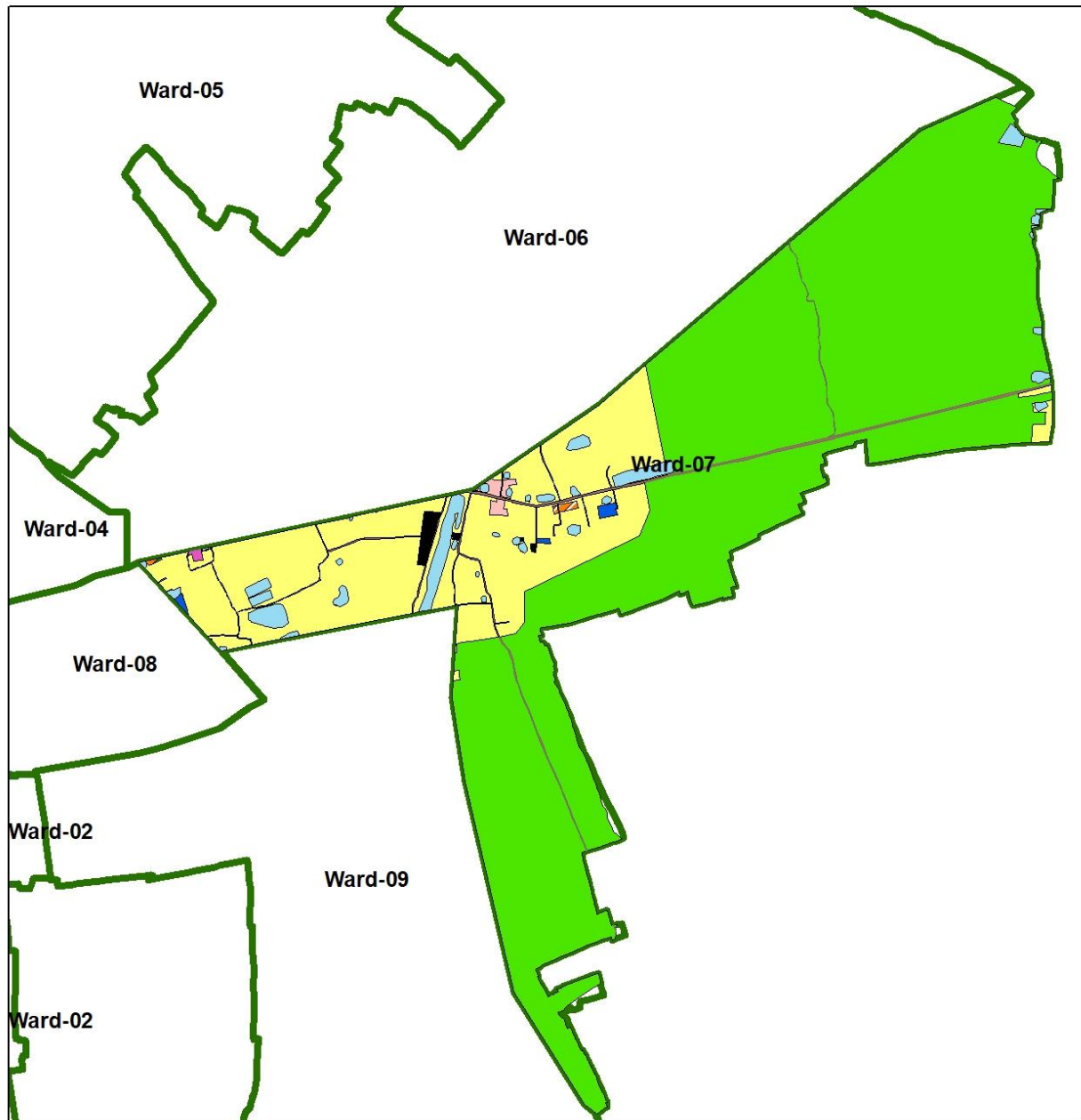
Year = 2025

Population: 3164

**Housing** - General Residential: 89.42 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	4.88	1.28				
Commercial	0.42	0.11	0.175 acre per 5000 Population	0.11	Over	
Education & Institution	0.70	0.18	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.21	Insufficient	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.39	Insufficient	
Mixed Use	1.05	0.28				
Administrative	0.19	0.05				
Agricultural	272.89	71.71				
Utility Services		0.00	3 acres per 20000 population	0.47	Insufficient	
Residential	89.42	23.50	1 acre per 95 population	33.31	Over	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.23	Insufficient	Insufficient
Health Facilities	0	0.00	3 acres per 10000 population	0.94	Insufficient	Insufficient
Community Facilities	1.29	0.34	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	0.94	Over	Insufficient
Waterbody	9.72	2.55				

## Landuse Distribution Map of Gangni (Ward 07)



## 2.8 Land Requirement Estimation for Ward No 8 of Gangni Pourashava-

Year = 2025

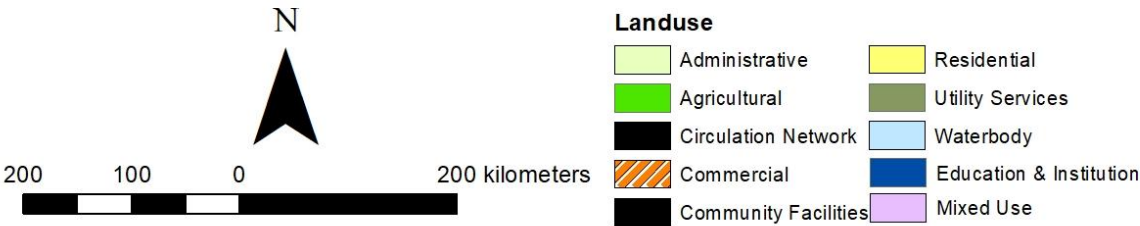
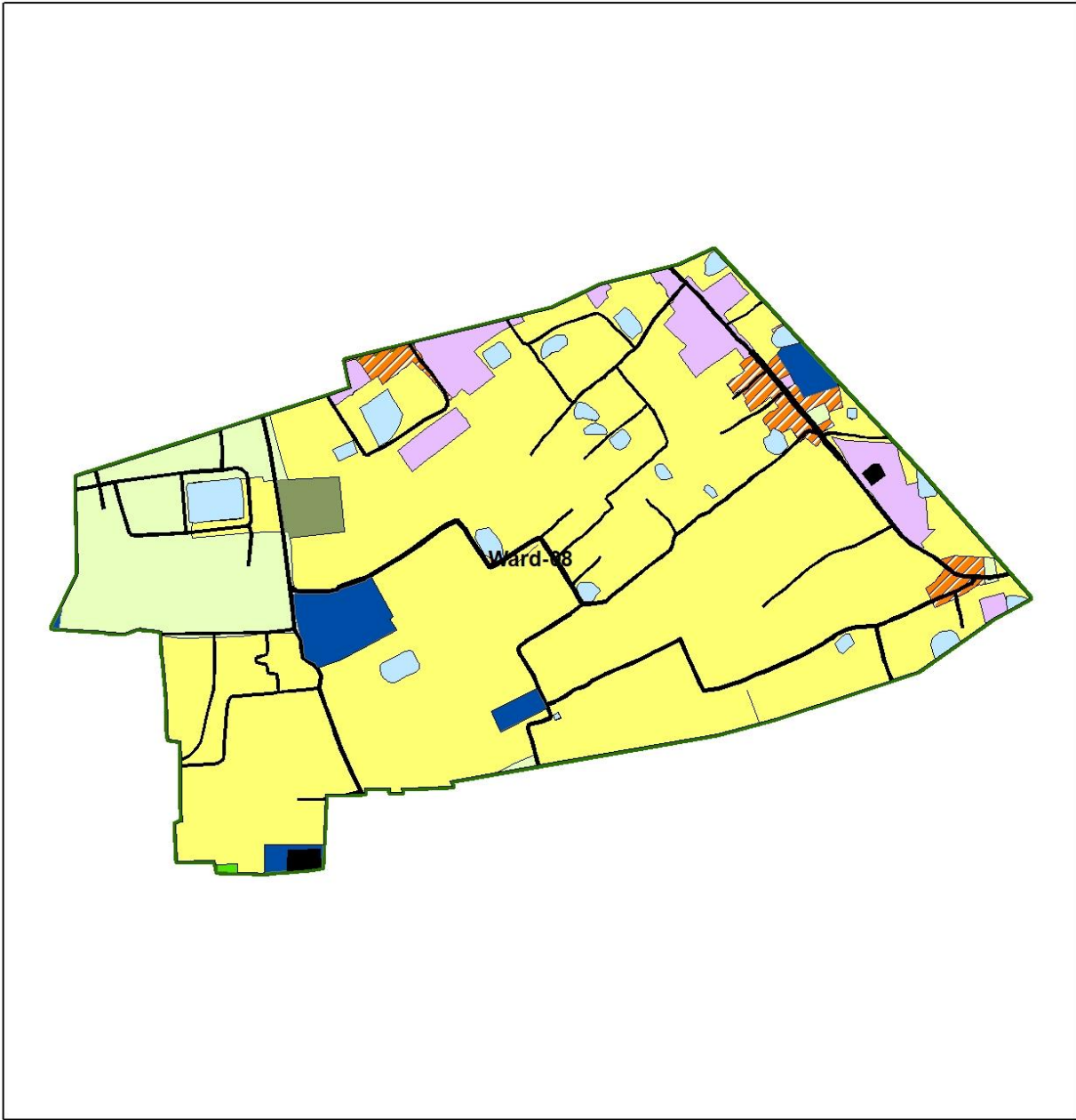
Population: 3193

**Housing** - General Residential: 65.06 Acre

Existing Land-use	Area	Percentage	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	4.16	4.57				Insufficient
Commercial	1.81	1.99	0.175 acre per 5000 Population	0.11	Over	
Education & Institution	2.57	2.82	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.24	Nearly equal	
Open Space & Recreation	0	0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.39	Insufficient	Insufficient
Mixed Use	4.47	4.91				
Administrative	9.00	9.88				
Agricultural	0.04	0.04				
Utility Services	0.91	1.00	3 acres per 20000 population	0.47	Sufficient	
Residential	65.06	71.44	1 acre per 95 population	33.61	Over	
Transport Facilities		0.00	1.5 acre per 20000 population	0.23	Insufficient	Insufficient
Health Facilities		0.00	3 acres per 10000 population	0.95	Insufficient	
Community Facilities	0.25	0.27	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	0.95	Insufficient	Insufficient
Waterbody	2.80	3.07				



Landuse Distribution Map of Gangni (Ward 08)



## 2.9 Land Requirement Estimation for Ward No 9 of Gangni Pourashava-

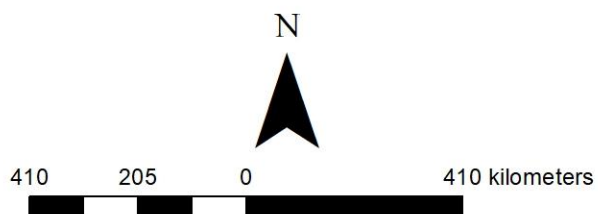
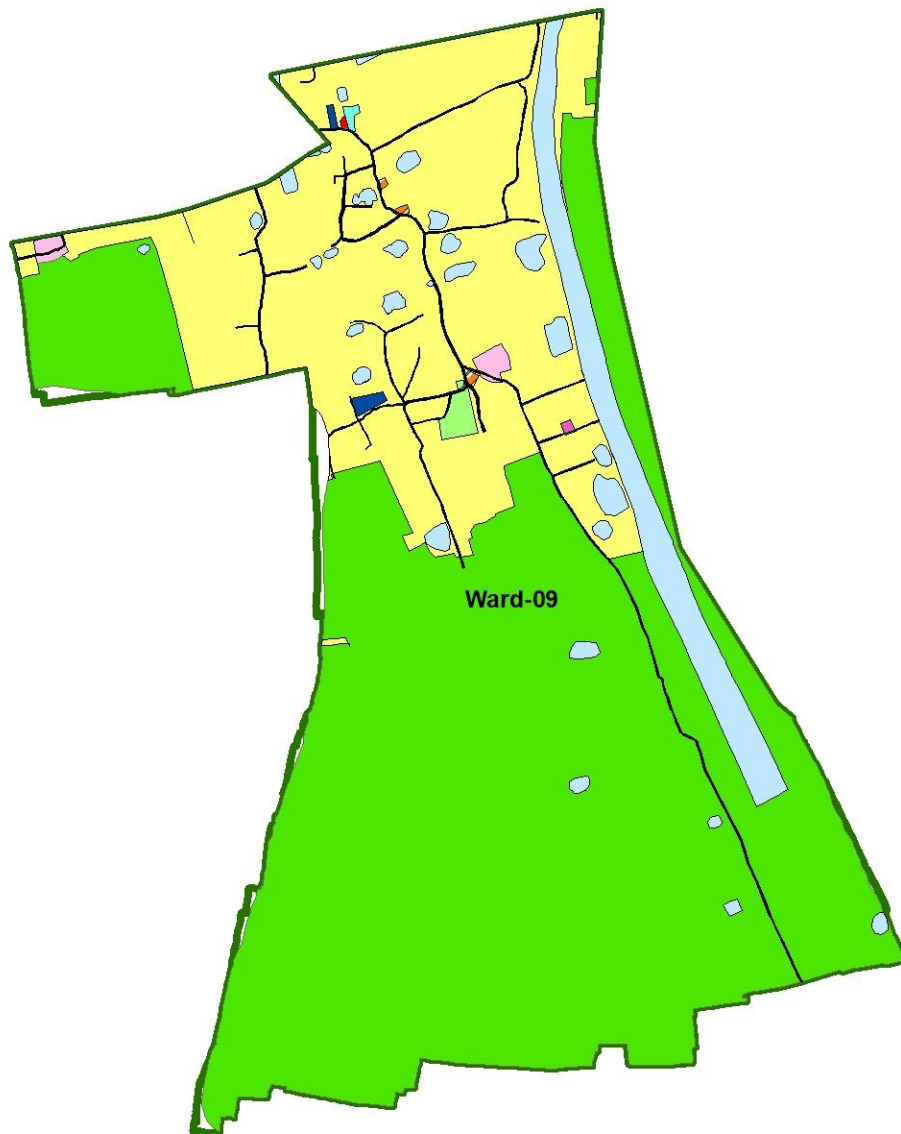
Year = 2025

Population: 3002

**Housing** - General Residential: 153.86 Acre

Existing Land-use	Area	Percent age	Standard	Estimated Land-use Requirement	Remarks	PRA Information aligned with previous MP
Circulation Network	4.87	1.12				Insufficient
Commercial	0.24	0.06	0.175 acre per 5000 Population	0.10	Over	
Education & Institution	0.56	0.13	1. 1 acre for primary school for per 5000 population 2. 2-3 acres for High school per 10000 population 3. College/ University 5 acre/ 20,000 population	2.10	Insufficient	Insufficient
Open Space & Recreation		0.00	Community/ Neighborhood Park: 1 acre/ 10,000 population. 1 Central Park, Area 5 acre Stadium 5-10 acre Cinema Hall 0.5 acre/20000 population	0.37	Insufficient	Insufficient
Mixed Use	0.25	0.06				
Administrative	1.33	0.31				
Agricultural	268.71	61.85				
Utility Services	0	0.00	3 acres per 20000 population	0.45	insufficient	
Residential	120.85	27.82	1 acre per 95 population	31.60	Over	
Transport Facilities	0	0.00	1.5 acre per 20000 population	0.22	Insufficient	Insufficient
Health Facilities	0.10	2.30	3 acres per 10000 population	0.09	Sufficient	
Community Facilities	1.18	0.27	For every 20,000 people, standard land allocations are typically as follows: 0.5 acre for a mosque, church, or temple; 1.0 acre each for an Eidgah, graveyard, community center, fire station, and post office. Police infrastructure requirements differ slightly—each police box or outpost requires 0.5 acre of land, while a full police station located at an Upazila headquarters needs between 3 to 5 acres.	0.90	Over	Insufficient
Waterbody	26.45	6.09				

## Landuse Distribution Map of Gangni (Ward 09)



### Landuse

Administrative	Industrial
Agricultural	Mixed Use
Circulation Network	Residential
Commercial	Waterbody
Health Facilities	Community Facilities
	Education & Institution

Similar trends are observed in Gangni Pourashava, where almost every ward has an over-allocation of residential land. Despite this, critical shortages remain in health services, transportation, open recreational spaces, and community facilities. Educational infrastructure is often inadequate, although a few wards come close to meeting the standard. Commercial land is over-allocated in some areas, yet the use appears inefficient or misaligned with population needs. A large portion of land is still designated for agriculture, which could hinder future urban expansion if not managed properly. In summary, while land availability is not an issue, the lack of balanced allocation for civic services highlights the urgent need for strategic land-use planning and urban infrastructure development.

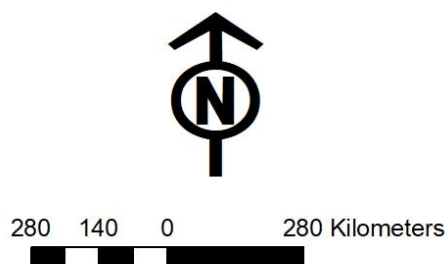
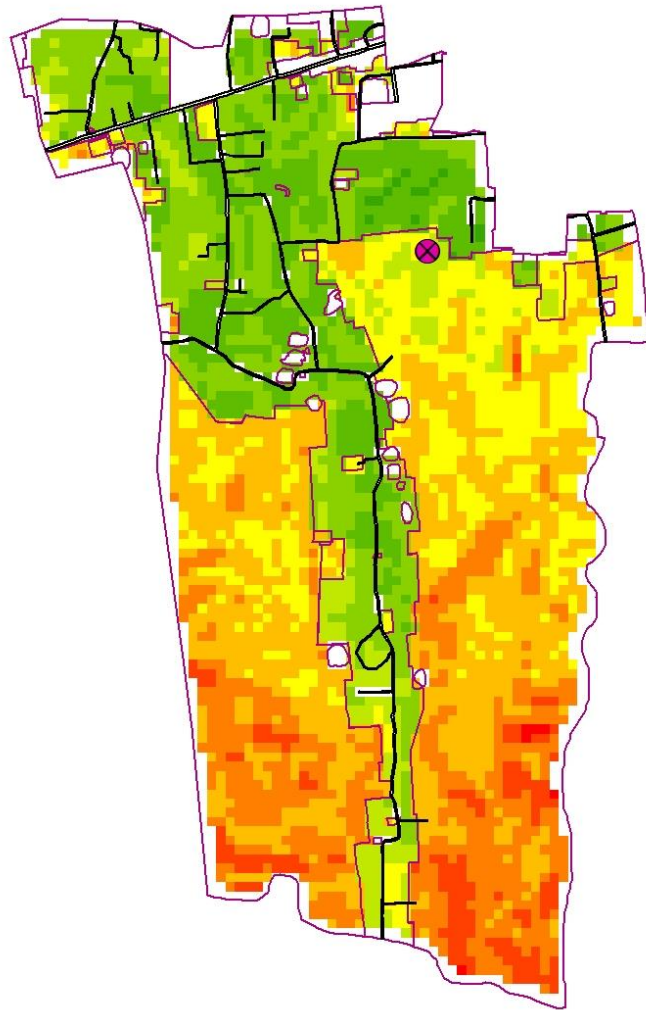
### 3 Suitability Analysis

To determine the most appropriate location for establishing a school in Ward 2 of Gangni Pourashava, a comprehensive GIS-based Multi-Criteria Evaluation (MCE) approach was undertaken. The process began by clearly defining the objective: to spatially identify zones that are most suitable for a new school, considering both geographic and socio-economic parameters. Relevant spatial data were collected, including land use patterns, road networks, population density, the location of existing educational institutions, and environmental factors such as topography and flood risk areas. Each of these factors was chosen based on their influence on school accessibility, safety, and potential for community benefit. Once identified, each factor layer was reclassified into standardized suitability classes ranging from 1 (most suitable) to 8 (least suitable), ensuring consistency in scale and interpretation. Subsequently, weights were assigned to each criterion based on their relative importance, typically derived from expert input or methods like the Analytical Hierarchy Process (AHP). These reclassified and weighted layers were then combined using a weighted overlay analysis in a GIS environment. The result was a composite suitability map where each pixel represents a cumulative score indicating its relative appropriateness for school development. This final output, color-coded from dark green (most suitable) to red (least suitable), clearly highlights the spatial variation in suitability across the ward. Such a data-driven approach enables planners and decision-makers to prioritize optimal locations for school establishment, thereby promoting efficient land use and improved access to education.

Relevant factors (criteria) influencing school location suitability are selected,

- Closeness to population clusters (more suitable)
- Accessibility via main roads (more suitable)
- Distance from existing schools (to avoid overlap)
- Avoidance of flood-prone or industrial zones (less suitable)

## Suitable Location for School (Ward 2, Gangni Pourashava)



Ward 2 Boundary

### Suitable Location

More Suitable



Less Suitable