

Payra-Kuakata Comprehensive Plan Focusing on Eco-Tourism

Urban Area Plan of Amtali Pourashava: 2021-2031

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বাংলাদেশ



গেজেট

অতিরিক্ত সংখ্যা
কর্তৃপক্ষ কর্তৃক প্রকাশিত

বৃহস্পতিবার, আগস্ট ২৯, ২০২৪

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
গৃহায়ন ও গণপূর্ত মন্ত্রণালয়
পরিকল্পনা শাখা-৩

প্রজ্ঞাপন

তারিখ: ০৬ ভাদ্র ১৪৩১ বঙ্গাব্দ/ ২১ আগস্ট ২০২৪ খ্রিষ্টাব্দ

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(২৪৪৫১)

মূল্য : টাকা ৪.০০

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রাষ্ট্রপতির আদেশক্রমে

মোহাম্মদ খাদেমুর রহমান
সহকারী সচিব।

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Executive Summary

The Urban Area Plan (UAP) was developed to serve as a guide for future city infrastructure development as well as land use control. A metropolitan area plan is prepared for the Paurashava area and is intended for a period of 10 years. Urban planning is more complex than structural planning and is divided into four chapters - strategic planning areas, traffic and traffic management guidelines, environmental and drainage management guidelines, and action plans of the neighborhood including the land use guide. The Urban Area Plan will guide potential regional land and infrastructure uses for urban settlements over the next 10 years. This plan aims to develop urban area plans and action regional plans at the local level. The presentation of this Report is following the Terms of Reference for Payra Kuakata Comprehensive Plan Focusing on Eco-Tourism. Amtali Paurashava was established in 1998 and covers an area of 1651.32 acres, including 9 yards and 4 mauzas. The current population is approximately 25,223, with a growth rate of 0.27%. Based on planning standards and the demand of local residents, the UAP proposes the allocation of 1651.32 acres of land for urban services over the next 10 years. The plan considers future development infrastructure, amenities, and service facilities to meet the needs of the growing population. Strategic Planning Zones are categorized based on the growth pattern and development potentiality of the area. According to this, the potential urban area of Amtali has divided into seven types. Land use zoning is the primary focus of the Land Use Plan. Additionally, relevant implementation guidelines and pertinent land development control regulations have been integrated.

The current state of transportation facilities, the volume of traffic, travel demand projections for the next 20 years, future traffic volume, and a strategy for transportation development are all included in the transportation and traffic management plan. Additionally, this plan includes descriptions of the management and execution strategies for the transportation system. The fourth part of the management plan is broken into two sections: drainage and environment. This plan also includes descriptions of the current drainage system, the elevation of the land, and plans for managing flooding and drainage. There are further sections on the current state of the environment, solid waste management, environmental contamination, plans for environmental management, and techniques for plan implementation. This plan includes projections for urban services that are both current and prospective.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

The urban area plan is a comprehensive blueprint outlining the development of an Amtali Upazila under the project of “Payra Kuakata Comprehensive Plan Focusing on Eco-Tourism” to facilitate sustainable urbanization over a predetermined time span of 10 years. An urban area plan is a detailed framework that outlines how a city or urban area should be developed over a specific period. Typically, the plan comprises directives, rules, and policies for zoning, land use, infrastructure, housing, and environmental protection. A city or metropolitan area's growth and development should be guided by a comprehensive and coordinated strategy that serves the demands of its citizens, businesses, and tourists while preserving the area's distinctive identity. Typically, a collaborative process involving a range of stakeholders, including government representatives, planners, architects, developers, community leaders, and residents, results in the creation of the urban area plan. Periodically revising the plan is possible to consider shifting goals and needs as well as alterations to the urban area's social, economic, and physical landscape.

Urban area should be developed sustainably and with care, and its surroundings should be protected, according to an urban area plan. This Plan is naïve about projects that have been permitted for development but haven't yet been built as well as about development that is now underway when defining the boundaries of the metropolitan area. The Urban Area Plan covers areas that need economic, physical, and social renovation as well as those that are anticipated to experience significant development during the plan's duration.

The Urban Area Plan has four parts, one of which is the Land use Plan. Land usage Land use is regulated by planning rules, which are statutory regulations. It is based on land use policies, such as Local Plans, which address issues including development density, road quality, the provision of infrastructure, and service availability. The legal instruments in effect with relation to the execution of planning control and standards are the pertinent Acts and Master Plans of the cities. As a result, the relationship between the proposed and current land uses will influence the future land use of the Amtali Urban Area.

An urban area plan, in general, offers a blueprint for a city's or urban area's sustainable growth and development, balancing economic, social, and environmental factors, and assuring that the urban area will stay thriving, livable, and competitive throughout time.

The Urban Area Plan (UAP) will consist of the following plans:

- Strategic Planning Zones
- Urban Land Use Plan
- Transportation and Traffic Management Guideline
- Drainage and Environmental Management Guideline
- Plan for Future Urban Services

1.2 Purpose of Urban Area Plan

Urban Area Plan is a statutory planning document to guide future development of urban up to 10 years. The plan will play an important role of enabling Upazila parishad to play greater role as a facilitator for promoting private sector development initiatives. These plans guidance to how it can develop the roles i.e. to promote development, to co-ordinate development and to control development. Urban Area Plan includes Transport Network, Drainage and Future Facilities. In this report, Future Demand has been calculated as per derived planning standard and proposals have been made based on existing facilities and local demand from the PRA output. The future service allocation proposals have been outlined in this also.

1.3 Reflection from Upper-Tier Plans

Upper-tier plans, such as regional plan and structure plan can provide valuable insights and guidance for Urban Area Plan. By considering the broader regional or statewide context, anyone can gain a better understanding of the potential impacts and opportunities of their development decisions. Upper-tier plans often address issues such as transportation, housing, and environmental protection that are relevant to urban areas. By aligning local plans with these broader objectives, it can ensure that their plans contribute to the overall regional or state-level goals. The Urban Area Plan offers a mid-term strategy for the development of the existing potential urban area and those areas that are projected to experience pressure from urbanization over the following 10 years.

For example, if a regional plan emphasizes the need to reduce greenhouse gas emissions, it can incorporate policies and regulations that promote sustainable transportation, energy-efficient

buildings, and renewable energy sources into its local plans. Upper-tier plans can also provide valuable data and analysis that can inform local planning decisions. For instance, regional and structure plans may include demographic and economic projections that can help to anticipate future population growth and employment trends, which can inform decisions about land use and infrastructure investments. The Structure Plan provides a long-term strategy up to the year 2041 for the development of Amtali Upazila. It consists of a report and map on the basis of several strategic zones. It identifies the magnitude and direction of growth and recommends spatial and sectoral policies over the long term for the urban area. The Urban Area Plan provides a mid-term strategy up to the next 10 years for the development of the existing potential urban area and those areas likely to come under urbanization over the next decade

1.4 Urban Plan Proposals

Urban facilities are distributed contingent on prevailing facilities, projected population for 10 years and local demand from PRA. The Transportation network and drainage network has been given top priority. Other facilities like schools, health clinics, neighborhood markets, eco- Park, bus terminal, CNG stand and many more have been proposed accordingly.

1.5 Area Coverage under Urban Area Plan

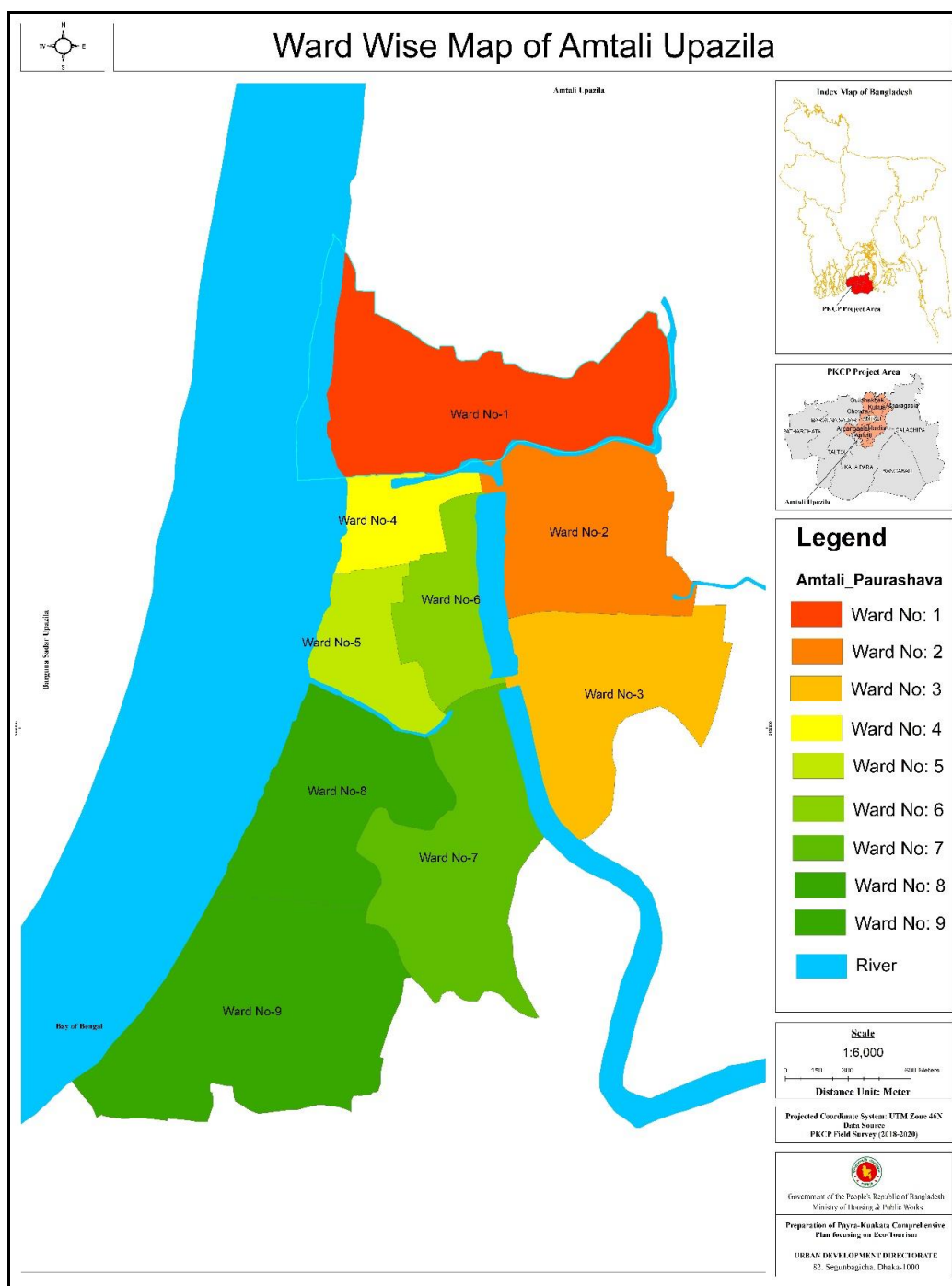
Total area of Amtali Upazila is about 720.76 Sq. km. and total population is 270,802 (in 2011). The following table represents the area and Population of PKCP Project. Some specific areas have been greatly impacted by urbanization. The Mitha Bazar area is witnessing high density urban growth, per the structure plan. The Transport Network, Drainage Plan, and Future Facilities are all included in the Urban Area Plan. Future Demand has been estimated in this chapter using derived planning standards, and a proposal has been produced based on available facilities. This chapter has a summary of the recommendations for future service allocation. The future urban area has been defined based on current land usage, population projections, and Paurashava area.

Table 1.1: Ward wise Area of Amtali Paurashava

Ward Name	Area (Sq. Km.)	Area (Acre)
Ward No-1	1.04	257.83
Ward No-2	0.70	174.18
Ward No-3	0.74	183.97
Ward No-4	0.34	84.27
Ward No-5	0.40	99.83
Ward No-6	0.37	90.46

Ward No-7	0.81	201.22
Ward No-8	0.92	226.83
Ward No-9	1.35	332.73
Total	6.68	1651.32

Source: BBS, 2011



Map 1.1: Ward Wise map of Amtali Paurashava

CHAPTER TWO: STRATEGIC PLANNING ZONE

2.1 Demographic Setting and Projected Population

In 2022 the total population of the Amtali Paurashava was 25223. which has increased in 2011 compared to 2011. The growth rate of this Paurashava was 1.23 % in 2011. The below Table 2.1 shows the demographic scenario of Amtali Paurashava.

Table 2.1: Ward Wise Population Projection

Ward NO.	Population, 2011	Population, 2022	Population, 2031	Population, 2041
Ward No-1	1,011	2212	2644	3037
Ward No-2	1,800	3664	6947	11425
Ward No-3	2,718	4338	6607	9165
Ward No-4	2,662	3354	4129	4854
Ward No-5	2,441	3378	4525	5681
Ward No-6	1,901	1804	1721	1659
Ward No-7	2,018	2635	3350	4038
Ward No-8	1,648	2545	3763	5101
Ward No-9	1,112	1293	1481	1646
Total	17,311	25223	35167	46606

2.2 Existing Land use

Land use is the principal component for the preparation of urban area plan. There are eight land use categories exist in the Amtali Paurashava which covered 1651.32 Acre of land area.

Table 2.2: Existing Land use Category

Sl. No.	Existing Land use Category	Area (Acre)	%
1	Waterbody	246.65	14.93
2	Agriculture	453.94	27.48
3	Commercial	79.83	4.83
4	Community Facilities	14.76	0.89
5	Education and Research Institute	28.20	1.70
6	Green Space	65.13	3.94
7	Health Facilities	13.17	0.79
8	Open Space	71.68	4.34
9	Public Services and Utilities	73.72	4.46
10	Residential	580.32	35.14
11	Transportation Facilities	23.88	1.44
	Total	1651.32	100



Map 2.1: Existing Land use Map of Amtali Paurashava

2.3 Strategic Planning Zone

Strategic Planning Zones (SPZs) are predetermined areas within a municipality or region that have been identified for certain land use purposes. Spatial planning zones based on the analysis of comprehensive knowledge about existing land resources which provide a guideline for future resources utilization policy. The urban area of Amtali has been divided into 8 Strategic Planning Zones (SPZ), and it is necessary to analyze each zone individually and determine the actions required for their promotion. Strategic planning zones play a crucial role in managing land use in a coordinated and efficient manner. By considering the needs and priorities of various stakeholders, these zones help ensure effective management and utilization of land resources. The Strategic Planning Zones of Amtali Upazila are listed below:

SPZ-1: Urban Town Center

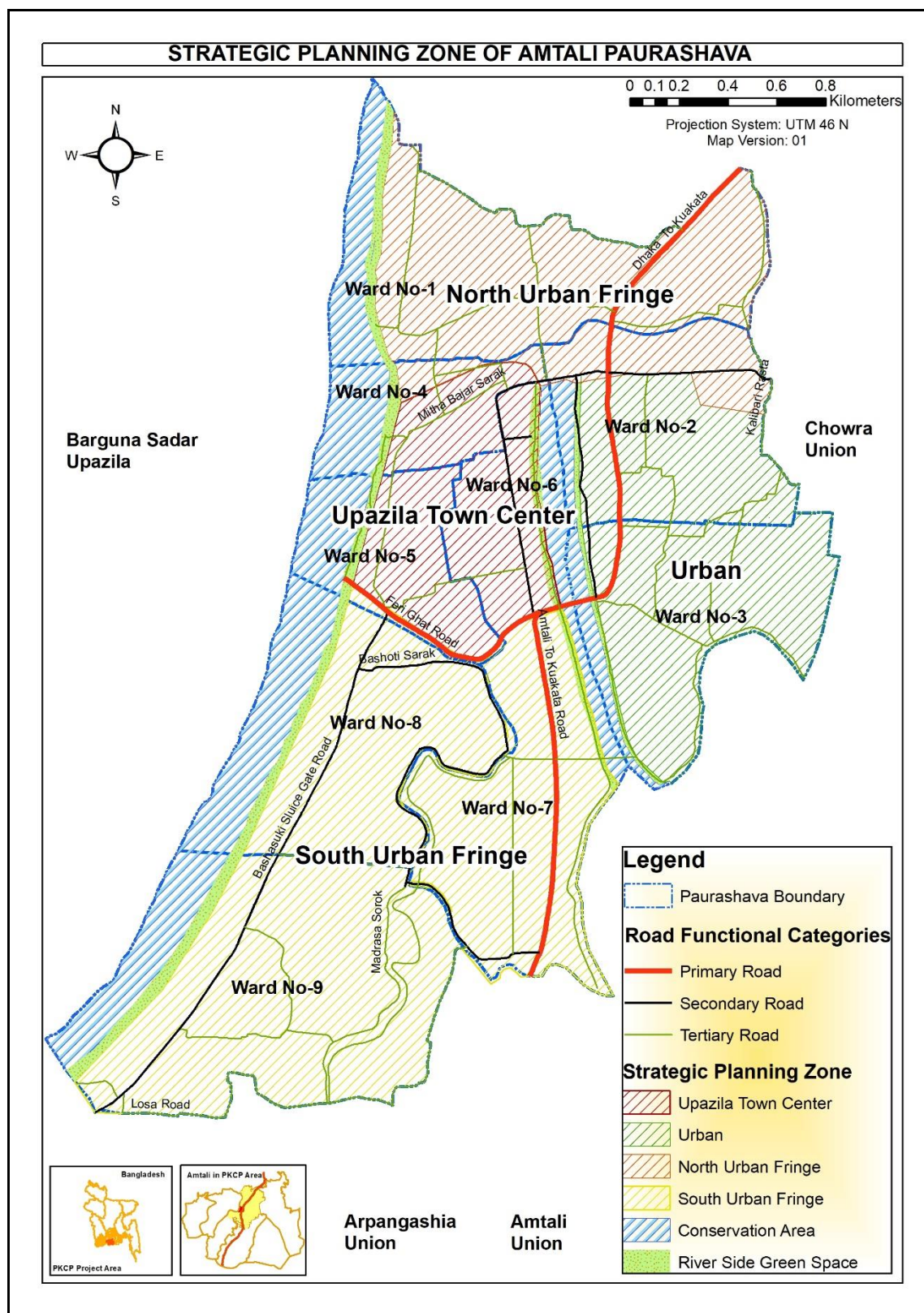
SPZ-2: Urban Area

SPZ-3: North Urban Fringe

SPZ-4: South Urban Fringe

Table 2.3: Demarcated Area of SPZ

SPZ Categories	Ward No.	Mouza Name	JL No	Plot No	Sheet No	Area (Acre)
Upazila Town Center	4,5,6	Chowra	30	54	1	184.57
Urban	2,3	Chowra	30	954	1	103.30
North Urban Fringe	1	Ghatkhali	29	2056	2	146.74
South Urban Fringe	7,8,9	Chhota Nachna Para	82	260	0	131.45
Conservation Area	3	Chowra	30	954	1	52.33
Conservation Area	8	Ghatkhali	29	1913	2	196.70
River Side Green Space	3	Chowra	30	954	1	7.69
River Side Green Space	7	Chhota Nachna Para	82	1	0	11.49
Grand Total						834.27



Map 2.2: Proposed Spatial Planning Zone

2.3.1 SPZ-1: Urban Town Center Zone

Core Town Center Zone area has a well road network. This zone is the region with high transit, walking, and cycling rates for business trips, as well as high population densities. The area is dominated by wholesale markets, bazar and some institutional uses while the remaining is predominantly mixed use. Dominant land use includes AK High School, Bus Counter, Bdreseller Ltd., thana, and Commercial activities.

Major Issues and Problems:

- Road network is comparatively better than the other parts of the Upazila. Lot of roads are narrow and earthen surfaces with very bad conditions.
- Due to the proper communication network, the agricultural product and others good price is high compare to the other Upazila of Bangladesh.
- The economic activities of Amtali Upazila are very limited. People mainly deal with agricultural and fishery-related products.
- Due to the lack of proper communication network, the agricultural product and other goods price is high compared to the other Upazila of Bangladesh.
- The growth is haphazard as there is no development control authority. As a result, the agricultural lands are destroying rapidly.
- The long-route buses as well as local vehicles are stopped on the road here and there which creates congestion often.
- Water logging is a common problem during the rainy season.
- Crises of safe water source for the Local People.

Opportunities

- Regional Road Connectivity.
- The proposed ferry ghat will establish a well-connected road network with other Upazila.
- The proposed primary road from Gorur bazar will ease traffic circulation.
- The construction of proposed bridge improves the communication system and connects other union of Amtali Upazila.
- Construction of new roads, and improving and widening the existing may reduce the transportation problem and improve the transportation system.

- A Central Bus Stand is proposed outside the UTC area. Thus, the Intercity Buses will need not enter the UTC. Moreover, an Easy Bike and Auto Rickshaw stand is proposed on the southern side of the UTC for avoiding random parking.
- The proposed primary road surrounding the UTC area will ease traffic circulation and reduce traffic congestion in the future.

Action Required

- Widening of roads and Construction of drainage should be pivotal. This will substantially reduce the traffic and drainage problem. The local authorities can invest in infrastructure such as roads, drainage systems to make the area *more accessible and safer* for businesses and customers.
- Promote all investors to ensure that the area develops with a positive image of a gateway.
- Parking facility is necessary to avoid congestion.
- **Amtali** Core Town Center area is connected through waterway transport so that a well-connected public transport system can make it easier for people to access the Core Town Center area. A prompt action is needed to construct proposed Bridge from **Amtali** ferighat to **Amtali** Paurashava.
- Local authorities can work with transport providers to improve connectivity so that people from other upazila or unions can easily communicate.
- Prepare an action plan.

Permitted Activities

- Administrative use
- Development use
- Commercial use
- Recreational use
- Educational Use

Controlled Activities

- Residential use
- Industrial use
- Agriculture use

2.3.2 SPZ-2: South Urban Fringe

Urban Fringe areas are conserved for the Upazila's projected growth and accommodate the land uses. Development inside Zones before the creation and approval of a comprehensive structural plan may expose the area's potential to be completely developed and adequately served for its planned future use. In order to meet growing needs, land intended for conversion from its present land use to an alternative land use must be clearly recognized, occur in a planned way, and have its resources safeguarded for its expected future use.

Major Issues and Problems

- Unplanned growth without the necessary infrastructure
- There is no effort to provide a reserve for infrastructure.
- A substantial part of the zone is low lying. However, new urbanization pressures may endanger the area reserved for a retention area.
- Vacant land available for urban development will need substantial landfill or special protection.
- This zone is mostly agriculture area.
- It is a zone of fast-changing ownership of the land.
- The expansion of residential houses took place fast.
- Hazardous growth is found.
- Service-oriented facilities such as – water supply; sewerage system, gas, etc. are not good.

Opportunities

- Low density development near to the Bashasujuki sluice Gate Road.
- It has potentiality for future development.
- The zone is served as open space as well as urban agricultural lands to meet the food demand of the urban population.
- This zone could be used for low-rise low-income housing and a detailed plan in this respect is required.
- The area is fairly agricultural and with less intense development.
- The site of the envisioned central wholesale market.
- Closeness to a major road and River.

Action Required

- Start community-based initiatives to create a local development strategy.
- The zone shall remain rural for many more years to boost the rural economy agriculture, aquaculture and other rural activities may be prompted.
- Adequate measures are required to prevent further filling and reduction.
- Plan and guide the development of hitherto undeveloped areas of the zone to complement the development character of the zone.
- All developments in the area should safeguard the retention pond areas, Canals and khals.
- The zone should be brought under Upazila administration and manage the expected fast development.
- For providing improved access, various khals in the zone may be re-excavated, and which may then also be used for retaining irrigation water. Create a local area plan as soon as possible.
- Determine the alignment of the proposed route and the roads that need to be upgraded.
- Start a community-based awareness campaign to save and safeguard water bodies.
- Hold off on building on the land needed for the new road.

Permitted Activities

- Residential use
- Development use
- Commercial use
- Industrial use
- Recreational use

Controlled Activities

- Agriculture use
- Educational Use
- Administrative use

2.3.3 SPZ-3: Urban Area

The zone comprises the relatively high-density development area except CBD zone. This is the prime development area of Amtali Paurashava. High-density residential area in this plan mostly refers to a mixed-use region that is dominated by residential purposes and has experienced rapid growth in recent years. Furthermore, it is anticipated that substantial development would take place in this area over time. Numerous public facilities and services are also suggested for this zone in accordance with the findings of the analysis. This region will support residential high-density and commercial arterial land uses. In multifamily arrangements, strong residential activity is well suited to high-density residential areas, as are other uses that can be incorporated into this categorization without significantly impairing its residential character. On arterial streets are wholesale, retail, and commercial activities including restaurants and service stations. Additionally, local commercials are also promoted here. This zone is occupied by the most of the peoples in this Paurashava.

Major Issues and Problems

- Spontaneous development without proper infrastructure provision
- Insufficient road width
- Building footprints are growing uncontrolled without any authorization.
- Major commercial activities are amalgamating with core residential areas rapidly.
- No drainage network except natural water bodies.
- No initiative for the provision of infrastructure reserve.
- There is poor condition of several roads.

Opportunities

- Proximity to major urban services
- Proximity to the urban core area
- Proximity to major road.
- Though this area is predicted to be highly developed, there is much space for a planned or systematic approach.
- There is a proposal for 80 feet bypass road surrounding the eastern boundary which is connecting Amtali Upazila Road directly to the Thermal plant road. As a result, major

vehicles may be directed to the thermal plant road through the bypass road without entering the dense urban area.

- Proximity to the CBD area and Upazila Road.
- Major roads and canals form the boundary. Thus, the transportation network has a good opportunity for well development.
- Several public and community services are proposed here to facilitate the local people.

Action Required

- A road network plan should be prepared and maintained by respective authority.
- Urban services should be provided according to Urban Area Plan
- Initiate community-based awareness program to preserve and protect water bodies.
- Prepare Local Area Plan on priority basis.
- Initiate community-based actions to prepare local development plan.
- Prepare Local Area Plan on priority bases.
- Linear development should be discouraged to contain the urban areas in manageable limits in view of the resource constraint.

Permitted Activities

- Residential use
- Administrative use
- Development use
- Commercial use
- Recreational use
- Educational Use

Controlled Activities

- Industrial use
- Agriculture use

2.3.4 SPZ-4: New Urban Area

The zone comprises the relatively low-density development area around the periphery area of the Paurashava. The term "low-density development area" refers to a collection of rural communities with a lower density than the surrounding area, which has experienced slower expansion in recent years. In a similar vein, it is predicted that little development will happen in this region throughout time. This area will promote neighborhood business land uses and low-density residential construction. Additionally, a number of significant public and utility facilities are proposed for this area, which will serve the main urban districts. Low-density Residential is generally intended for low-density, single-family, detached residential dwellings and unoccupied land, with restrictions on construction at greater densities. Such a low-density development is suited in places with easy access to utilities and public services, as well as less sensitivity to environmental dangers or natural disasters. Only neighborhood retail facilities, such as convenience stores and service businesses that depend on regular purchases and have modest trade areas, should be allowed for commercial expansion in such regions. This area describes urban agriculture with rural settlements in nature.

Major Issues and Problems

- These zones are situated mainly in Semi-urban and urban fringe areas.
- Very Low-density development.
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve
- North, south and west side of the zone is surrounded with ecologically sensitive area.

Opportunities

- Due to Low-density development, it has a rural nature.
- Immense Utility and Public Facilities are proposed in this zone such as water treatment plant, waste disposal site, Bus Terminal etc. that will serve the major areas of the potential Urban.
- The transport corridor and natural setting marks the zone as high-quality residential area.
- Transport corridor and natural setting marks the zone as high-quality development area.
- Eastern boundary formed by Road, northern boundary formed by proposed Road.

Action Required

- Identify the alignment of proposed road and road those need up-gradation.
- Initiate community-based awareness program to preserve and protect water bodies.
- Motivate community to maintain pervious ground coverage to a ratio of
- Defer development activities on land required for new road.
- Initiate community-based actions to prepare local development plan.
- Pursue different government agencies to prepare plan before development takes place.
- Prepare Local Area Plan on priority basis.

Permitted Activities

- Residential use
- Administrative use
- Development use
- Commercial use
- Recreational use
- Educational Use

Controlled Activities

- Industrial use
- Agriculture use

2.3.5 SPZ-5: North Urban Fringe

The Inner urban fringe, sometimes referred to as the suburban, area situated between urban core and rural area with less population density. The Inner urban fringe is the region that is in between urban and rural areas. It is frequently seen towards the edge of a city, where the built-up urban environment gives way to open space and rural regions. A mix of urban and rural land uses, such as development subdivisions, shopping malls, industrial parks, and agricultural land, can be found on the urban periphery. There may be more green spaces, parks, and natural areas here, and the human density is often lower than in the center urban regions. People who relocate from the city to the suburbs in search of more affordable housing and a higher quality of life frequently target the urban periphery for suburbanization.

Major Issues and Problems

- It is a transitional zone.
- Hazardous growth is found
- It is a zone of fast changing ownership of the land.
- The expansion of development houses took place fast.
- It is an area of present and future development.
- Fringe withdraws the land from agricultural production.
- Land value of fringe area is more than rural less than urban area.
- Service oriented facilities such as – water supply; sewerage system, gas etc. are not good.

Opportunities

- It has better road and waterways network compare to the other area.
- Low density development
- Proximity to the existing urban area

Action Required

- A layout plan has been prepared for this Bangabandhu planned development area. So, all activities have developed in the plan
- Initiate community-based actions to prepare local development plan.
- Pursue different government agencies to prepare plan before development takes place.
- The zone shall remain rural for many more years. As such the authority should discourage
- A municipality or development board should be created for the governance of the zone and to provide guidance for the public and private development.

Permitted Activities

- Agriculture use
- Residential use
- Administrative use
- Development use
- Commercial use
- Recreational use
- Educational Use

Controlled Activities

- Industrial use

2.3.6 SPZ-6: Conservation Zone

Conservation zones set aside ecologically fragile areas to guarantee sustainable use of space. If ecological conservation is not given priority, urbanization could be disastrous for the further development of built-up areas. Beaches, char areas, and forests or mangrove forests are the categories on which conservation zones have been determined.

Major Issues and Problems

- Spontaneous development without proper infrastructure provision
- Insufficient and unsafe pedestrian facilities

Opportunities

- Presence of heritage buildings and site.
- Vibrant urban life.
- Criss-crossed by many lanes

Action Required

Pursue concerned agency to conduct full length study to identify heritage buildings & sites and take initiatives to preserve them.

Take marketing initiatives of the heritage resources to the potential tourists.

Negotiate with concerned authority of the central government to relocate the jail outside the Structure Plan Area.

Pursue concerned agency to identify heritage buildings and structures inside the jail and take proper step to preserve those.

Initiate stakeholders, specially community, consultation to promote and preserve the value of buildings and sites having architectural, historical and other cultural significance.

Permitted Activities

- Agriculture use
- Recreational use
- Educational Use

Controlled Activities

- Commercial use
- Residential use
- Administrative use
- Development use

2.3.7 SPZ-7: River Side Green Space

Major Issues and Problems

- Major wholesale trading activities.
- Spontaneous dense development.
- Motorized vehicle doesn't match the development pattern.
- Criss-crossed by narrow lanes; which are of pedestrian scale.

Opportunities

- Land and river connectivity.
- Existing use for fish landing and distribution.

Action Required

Market the area for private and public investment for the development of fresh water fish processing industry.

Promote all investors to ensure that the area develops with a positive image of a gateway to Barisal.

Permitted Activities

- Agriculture Use
- Recreational Use

Controlled Activities

- Industrial Use
- Residential Use
- Administrative Use
- Development Use
- Commercial Use
- Educational Use

CHAPTER THREE: TRAFFIC AND TRANSPORTATION MANAGEMENT GUIDELINE

3.1 Introduction

In coordination with the land use plan, this plan must include an inventory and analysis of all existing and prospective circulation networks, patterns, and modes of mobility. Municipal streets and roads, pedestrian circulation, nearby facilities, nearby bicycle routes, parking, and other facilities supporting or providing for the people and things within the Jurisdiction will be the main local concerns. Associated land, such as ports, stations, and other maritime facilities, will also be included in this focus. Better transit accessibility is desperately needed to strengthen the study region's connectedness with the rest of the Upazila, the country, and the potential urban area. Better accessibility inside the tourist areas can improve the nation's tourism industry, which would have a stronger impact on tourism and the economy in Bangladesh. In order to give local and foreign visitors comfort and safety, the walkability within the tourist areas must also be improved.

In order to do this, it is essential to comprehend the current status of the transportation system, on the basis of which a sustainable transportation system can be developed in the future. A complete traffic study of the current road network is therefore essential. This will provide information on the current status of transportation, as well as information on its advantages and disadvantages, and potential for future development. An enhanced transportation system guideline will be suggested using the results of this survey and study on transportation.

3.2 Objective

The objective of the transportation system guidelines should be to offer a sustainable transportation system that satisfies community demands by allowing the movement of people, goods, and wealth at the highest possible degree of safety, economy, and efficiency.

3.3 Transportation Survey Findings

From the transportation survey, it is observed that, on average, 4.37 trips per household are generated within the Amtali area per day among which 67.74% is travel by walking. As the study area is surrounded by a river network and the most disaster-prone area, the travel pattern is not as same as the dry season in the rainy season. The survey also unveils that toilet and drinking facilities were not at a satisfactory level. The parking facility and road condition surrounding the

Bazar area required up-gradation. the participants mentioned that congestion creates due to on-street parking, narrow road network, and lack of parking facilities. The roads were observed to have narrow carriage width considering the requirements for two vehicles to pass side by side. The roads had several sharp turns as well. Road condition is very bad; roads are not paved, there is a crack in roads, brick soling, wholes exist in here and there, ongoing construction works etc.

3.4 Existing Conditions of Transportation Facilities

The majority of the notable crossroads are located on the Amtali-Khepupara-Kuakata Regional Highway (R881) and the Patuakhali-Amtali Regional Highway (R880). Both regional highways (R880 and R881) must be developed for the future since the access road would instantly serve the Payra Deep-Sea Port and Payra 1320 MW Thermal Power Plant. There are no public bus stops nearby, and the roads in Upazila and Union are not suitable for supporting vehicular traffic.

Amtali intersection is the most significant among the other intersections and merits further development planning since Kuakata-Khepupara regional highway (R881) and Barguna-Amtali-Patuakhali regional highway meet here. All types of vehicles must pass through this intersection to get to the Payra-Kuakata tourism zone. Amtali crossroads was also found to be the busiest intersection in the research area since it serves as a gateway to the main town area, local and long-distance bus stoppages, and important business hubs for this area.

3.4.1 Existing Road Network

This part analyzes current shortcomings in the transportation sector by describing existing transportation infrastructure, including roadway characteristics, modal share of vehicular traffic, level of service, which incorporates degree of traffic congestion and delay of Amtali. The majority of the roads have such poor conditions that driving a motor vehicle on them is dangerous. The majority of the roads are brick and katcha pavement roads, both of which are in poor shape. Roads become flooded and muddy during a flood, leaving locals completely reliant on waterways for transportation. The launch ghat is also in poor condition. Additionally, it has been noted that the disorganized and temporary stands for local buses, electric auto rickshaws, and motorbikes cause traffic congestion in the Amtali chow Rasta area.



Map 3.1: Existing Road network of Amtali Paurashava

3.4.2 Roadway Characteristics and Functional Classification

The primary roads are the urban highways whose function is to channelize the longer movement from one place to another and beyond. The primary road of Amtali Paurashava is connected in north and north east directions and these roads maintain connectivity with the outside areas of Paurashava. Moreover, the primary roads are also connected with secondary and access roads and all these roads maintain good connectivity within the Paurashava area. Secondary road cannot provide access to individual buildings because the consequent frequency of interruptions would give rise to traffic dangers. Tertiary road connects secondary road with access road. But in Amtali Paurashava most of the roads cannot be defined according to road hierarchy.

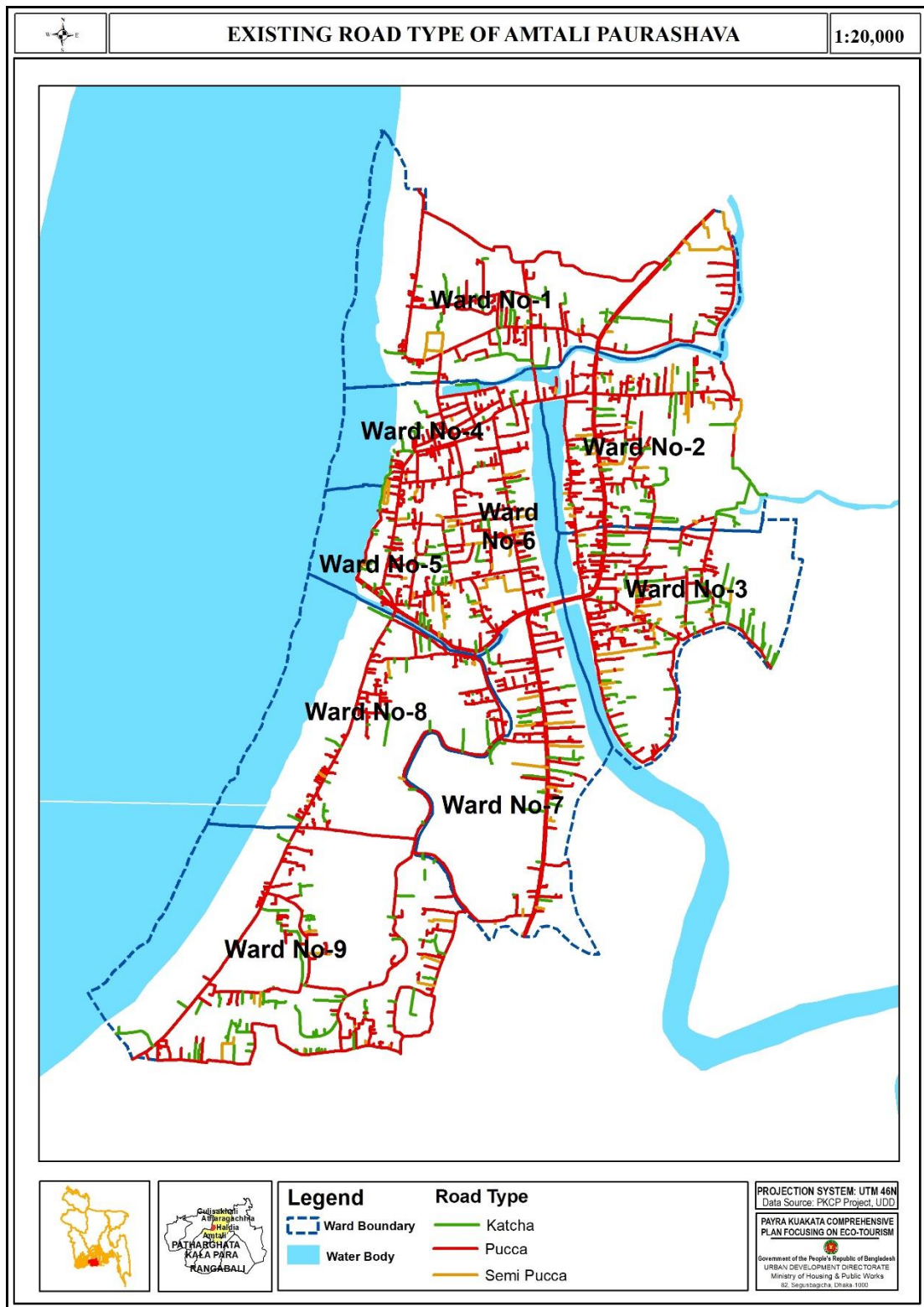
Table 3.1: Existing Functional Category of Amtali Paurashava

Functional Category	Area	(%)
Path	38900.51	41.35
Primary Road	4737.92	5.04
Secondary Road	8100.81	8.61
Tertiary Road	42334.15	45.00
Grand Total	94073.40	100

From the physical feature survey, it has been observed that about 72.96 % (68637.57 m) of the roads are Pucca, 19.18% (18044.47 m) roads Katcha and the rest of the roads are Semi-pucca 7.85% (7391.35 m). There are 44 bridges at Amtali Paurashava. Few bridges are pucca and condition of pavement are good.

Table 3.2: Existing Road Network of Amtali Paurashava

Road Type	Area (m)	%
Katcha	18044.47	19.18
Pucca	68637.57	72.96
Semi Pucca	7391.35	7.85
Grand Total	94073.40	100



Map 3.2: Existing Road Type of Amtali Paurashava

3.4.3 Existing Waterways

From transportation survey it is found that overall ferry service in Patuakhali and Barguna is in awful condition over the years. Most of the ferries are now at risky situation due to low demand. Overall ferry service in Patuakhali and Barguna is in awful condition over the years. 10 ferries are already shutdown a long time ago. Most of the ferries are now at risky situation due to cracks that let water in and it often requires removal of the water with pumping machines.

One ferry is active now: Amtali on the Payra River along Patuakhali-Barguna road.

The ferry service is unavailable and only used to transport heavy vehicles. So, not more than one ferry mainly serves this area. The Bike, Easy bike or Auto Rickshaw.

3.4.4 Existing Ferry Ghat and Launch Terminal

Existing Ferry Ghat and Launch Terminal is situated at Long: 22° 07' 59.1600" N, 90° 13' 50.5200" E Noyabangoli road, TNT road, Arambag road, Sobujbag road intersect Launch ghat road. All are located within north-west of R880. All the roads are constructed with flexible pavement. Road surface along with the Amtali bazar area is started deteriorating. Condition of access road for ferry is poor. Largest economic hub in the study area made most crowded place. On street parking. Easy bikes, Mahindra, Electric auto van and Motorbikes. Boats, trawler, launches in waterway

3.4.5 Existing Boat Ghat

The Location of Amtali Upazila is boat ghat. Vehicle Type is Trawler/ Cargo. Goods Type is Rice, Wheat, Salt, Flour, Oil etc. The Capacity of existing boat ghat is 300-400 tons. Frequency is Every Tuesday two boats come from Jhalakathi but not stay in Amtali. On season almost 12 boats come to the ghat and stay at the boat ghat.

3.4.6 Bot Tola Truck Stand

Amtali Bot Tola is the only prominent truck stand in Amtali Upazila. During off-season, around 100 trucks come to the stand and about 40-50 trucks leave the stand per day. On an average 50-60 trucks stay there every day for a duration of 2 hours - 2 days. During on-season mainly in January and April, around 500 trucks come and go every day. Sometimes 100 trucks stay for a single day. These trucks mainly come from different locations such as Dhaka, Rajshahi, Jessore, Khulna, Satkhira, Barguna etc. by carrying various types of goods like paddy, rice, wheat, tin, fruits (mango, water melon) etc.

3.4.7 Mode of Travel in Amtali Upazila

Manikjhuri Bus Stop is at Amtali. Latitude/Longitude: 22° 06' 08.7559" N, 90° 13' 40.1706" E. T-intersection joining Barishal-Kuakata and Amtali Sonarchar Road. The regional highway condition at this point is fair. Emergence of crocodile crack. The condition of Amtali- Sonarchar road at intersecting point is paved though the pavement is started to deteriorating. Urbanized area so most crowded place. Encroached by different economic activities. On street parking. Easy bikes, Mahindra, Electric auto van and Motorbikes, Bus for long distance.

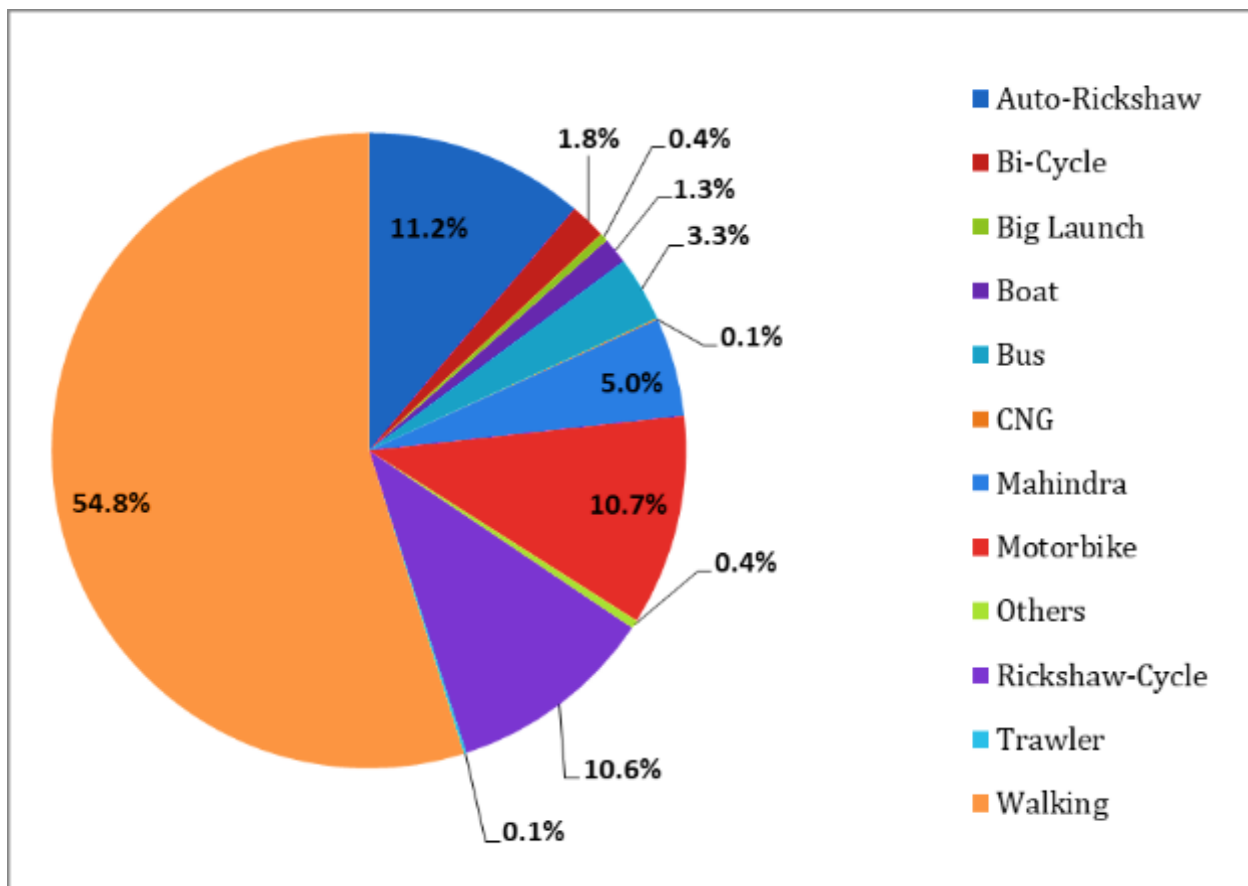


Figure 4.1: Mode of Travel in Amtali Upazila

3.5 Transportation Development Plan

Prepare inventory of existing transportation infrastructure, land use and socioeconomic data. Develop a computer based 4-step travel demand forecasting model for the base year using CUBE software package with the input data from Step 1, i.e., taking 2018 as the base year. Identify major bottle necks within the network and match those with the findings from the survey.

Prepare an inventory of all the future land use and transportation infrastructure projects that will have impact on travel demand and supply throughout the design life. Obtain the future land use and projected socioeconomic data for every five years till the end of the design period of the project. Identify the bottle necks; determine the origin-destination pairs having high flow but at high travel cost. Propose new transportation infrastructure projects to address the concerns raised by the outcome of Step 6. It is important to create several alternative infrastructure project proposals at this step. Evaluate the efficacy of various future scenarios represented by various future transportation infrastructure projects and rank them based on their effectiveness.

3.5.1 Deteriorated Pavement Condition

Problem: Except for several Zila highways and regional routes, it was discovered that nearly the entire road network's pavements were in poor condition. There are various factors at play here: Weak construction, poor maintenance, flooded pavement during the rainy season, pavement utilized as bazaars and parking lots leading to creep failure despite fatigue failure being taken into consideration, etc.

Solution: The responsible authorities should have well thought out pavement maintenance plans in addition to improving local pavement construction practices. Additionally, regular pavement condition monitoring is required to lower maintenance costs. As was previously indicated, bazaar areas can be moved away from the main carriage width. It is necessary to build separate parking facilities at the same time. By doing this, pavements will be subjected to the least amount of dead load that could result in creeping collapse.

3.5.2 Bazar Area Congestion

Problem: In the study region, it was noted that congestion almost always occurs around bazaar areas, which are frequently found close to junctions. This occurs because these places frequently draw a sizable number of visitors. At the same time, these bazaars are easily accessible from the road system, and frequently they are built on top of the actual highways. A significant number of items are also brought to and from these bazaars in addition to people. Roads are blocked while such loading and unloading occurs. These bazaars are frequently leased by different local authorities.

Solution: Every growth center should assign a certain land area to serve as the bazar area, at least 250 meters away from the intersections. The location should have clearly marked access points and dedicated areas for the loading and unloading of cargo. To prevent jaywalking, which poses a risk to both operations and safety, decent pedestrian amenities should be built.

3.5.3 Congestion due to Unconventional Modes of Transport Parking

Problem: It was clear that unconventional modes of transportation (UCM) have significantly increased to fulfill the rising demand for travel because suitable public transportation facilities are lacking in many areas of the research area. These UCMs almost typically lack a parking area and are uncontrolled. As a result, they intrude on public roadways, frequently reducing the carriage width to less than one legitimate lane. At crossroads, the situation is significantly worse.

Solution: Every major stop in the study area that serves as a point of entry or exit for UCMs must have a parking place for them that is accessible from a local road. UCMs will use those spots that are off the road to load and unload people. Access to UCM stands should also include proper pedestrian facilities. These stands should be built with the idea that they will still be functional when UCMs are replaced by more traditional public transportation, such buses, in the future.

3.5.4 Congestion at Intersections

Problem: Culturally the development work in Bangladesh often take place keeping the intersections in focus. It causes substantial problems as in one side it attracts traffic from all directions and at the same time there is not enough space or set rules to channelize their movement without conflict. Often, there are no parking areas or locations for proper access and egress from vehicles.

Solution: Intersections need to be widened and various major movements are to be channelized constructing physical barriers. Also, parking facilities should be constructed in such way that they don't hinder the traffic movement at intersections.

3.5.5 Lack of River Crossing Facilities for Vehicular Traffic

Problems: It was found that although ferry services are available at various locations, particularly on the regional roads, their condition is quite dilapidated causing huge safety concern. Moreover, often the frequency of ferry services is inadequate creating long queues.

Solution: At present, several initiatives have been taken to construct bridges replacing the ferries. It is expected that once such projects reach completion, this issue will mostly get resolved. At the same time, once the computer-based model is constructed, analyzing the origin-destination demand matrix, locations where new ferry services can be introduced to reduce travel time can be identified.

3.5.6 Poor Pavement Condition

Problem: It was found that other than the regional road and some zila roads, pavements in almost all the road network is in dilapidated condition. There are several reasons for it: i) weak construction, ii) lack of maintenance, iii) pavement going under water during the rainy season, iv) pavement being used as bazar and parking area resulting in creep failure although they were designed considering fatigue failure, etc.

Solution: Apart from enhancing the local practice of pavement construction, concerned authorities should have well designed maintenance plans for pavements. Also, regular monitoring of pavement conditions is necessary to reduce the cost of maintenance. Bazar areas can be relocated from the main carriage width as mentioned earlier. At the same time, separate parking facilities are required to be constructed. This will ensure that pavements are subjected to minimum dead load that may cause creeping failure.

3.5.7 Lack of Properly Designed Inter-Modal Transfer Opportunities

Problem: Being a riverine region, it is quite expected that waterways will play a significant role in transportation of people and goods. However, waterways cannot provide the ‘last-mile’ connectivity which is in general provided through road network. In order to ensure proper operation of inter-modal transfer opportunities, proper facilities are to be designed connecting these two modes. Often such facilities are unplanned creating congestion and delay.

Solution: Inter-modal transfer areas need to be properly designed for both goods and passengers. There should be designated public transport, personal vehicle and goods vehicle loading-unloading-parking areas designed in such areas. People should also be provided with waiting areas with basic amenities.

3.6 Proposed Road Network

To maintain Amtali Upazila Urban Area's status as a modern metropolis and to provide for the needs of the administrative, financial, and commercial hub of the nation, comprehensive and efficient transportation systems with good interlinkages are crucial. To ensure that everyone has equal access to the many advantages of urban living, the city must be able to provide an effective and equitable transportation system. Due to the urban area's current ineffective transportation system, the country could suffer serious socioeconomic losses and lose its competitive edge

internationally. New Road Network has been proposed and widening of existing roads also proposed.

3.7 Future Plan and Direction

Safe, affordable, sustainable and connected communities. Communities will find better places to live, work and raise a family, with easy and safe access to social and economic opportunities. An effective network of connectivity will foster the safe, efficient movement of people and goods and contributes to Amtali Upazila economy. Roads and highways and other mass transits directly connect to other transportation modes and are vital to moving of products to markets both within and outside the urban area. To achieve the goal following issues will have to be addressed:

- Providing a greater choice of travel modes (BUS/CAR/TRUCK)
- distributing goods and services more efficiently;
- Improving road safety and road widening;
- Reducing the environmental impacts of the transport system;
- Fostering medium density development;
- Utilization of water way transport network;

CHAPTER FOUR: URBAN DRAINAGE AND ENVIRONMENT MANAGEMENT PLAN

4.1 Drainage Management Plan

This chapter states about goals and objectives, and methodology of Drainage Development Plan. An inventory of the existing drainage system of Amtali has been made as a part of the comprehensive topographical survey to be taken-up under this project. While assessing the drainage conditions, the serviceability, structural conditions, obstruction, siltation, blockages are taken into consideration. And finally describe the drainage and environmental management plan, and its implementation strategies.

4.2 Goals and Objectives

Provision of drainage facilities are important concern to human settlements to create better living environment. Failure to provide the adequate drainage facilities results in flooding and detrimental environmental quality. Drainage of high rainfall region particularly in the context of Barishal region is very important. The objectives of drainage planning are described as follows:

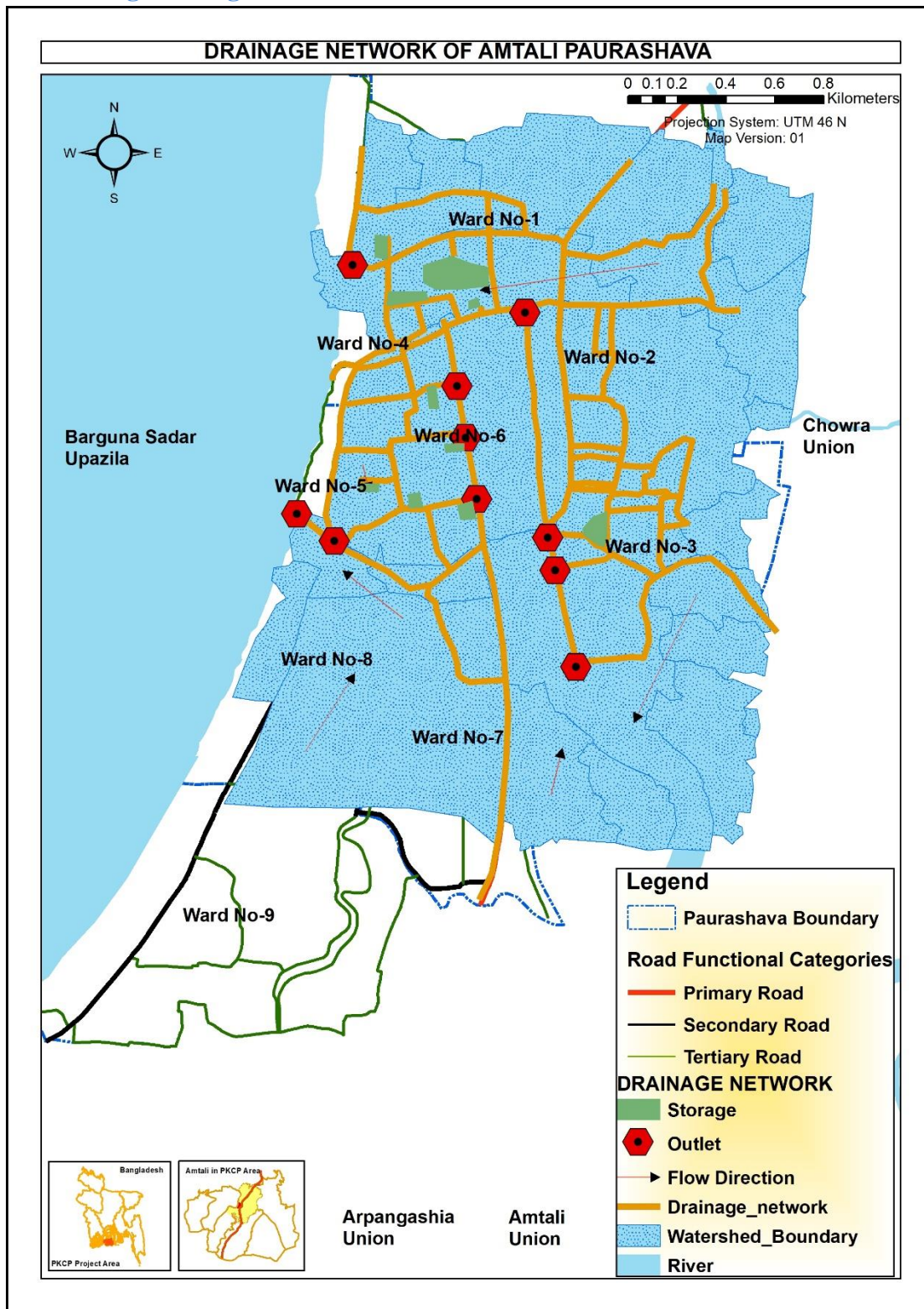
- To analyze drainage aspects in the planning of the Paurashava.
- To study geological fault and lineament of the project area and its surroundings.
- To study the existing water development, flood protection and flood control project (if any) in the area and their impacts in the Paurashava plan.
- To present planning options for drainage of the future Paurashava area.
- To study conservation of the natural resources like parks, open space, water bodies, existing ponds etc.
- To conserve place of historical, architectural (if any) and agricultural importance including natural fisheries.

4.3 Methodology and Approach to Planning

Drainage Network Survey for Amtali Paurashava has been carried out through the guideline of ToR. In this survey explore the existing drainage network system at Amtali Paurashava. The main vision of this survey is explored the length, depth, flow direction, coverage area and satisfactory level of the Paurashava inhabitants. The information of drainage network gathered from topographic, socioeconomic and physical feature survey. Major feature of drainage and environment survey are as follow:

- Survey the main drainage channels from their heads to the outfalls and to estimate their capacity to discharge water.
- Collect and analyze meteorological data over time in the area to determine the meteorological conditions and predict storm surges.
- Determine the efficiency of the present drainage systems and make recommendation to government. • Organize a public enlightenment campaign to expose the adverse effects of dumping refuse in drainage channels, through a mass media meeting.
- Drainage channels were surveyed by leveling from the head of the channels to the outfall using a surveyor's level. A zero datum was chosen at the head of each channel. These zero heights were then used to level the channel from the head to the toe or outfall. In areas where water flow was observed, the velocity of the flow was recorded.

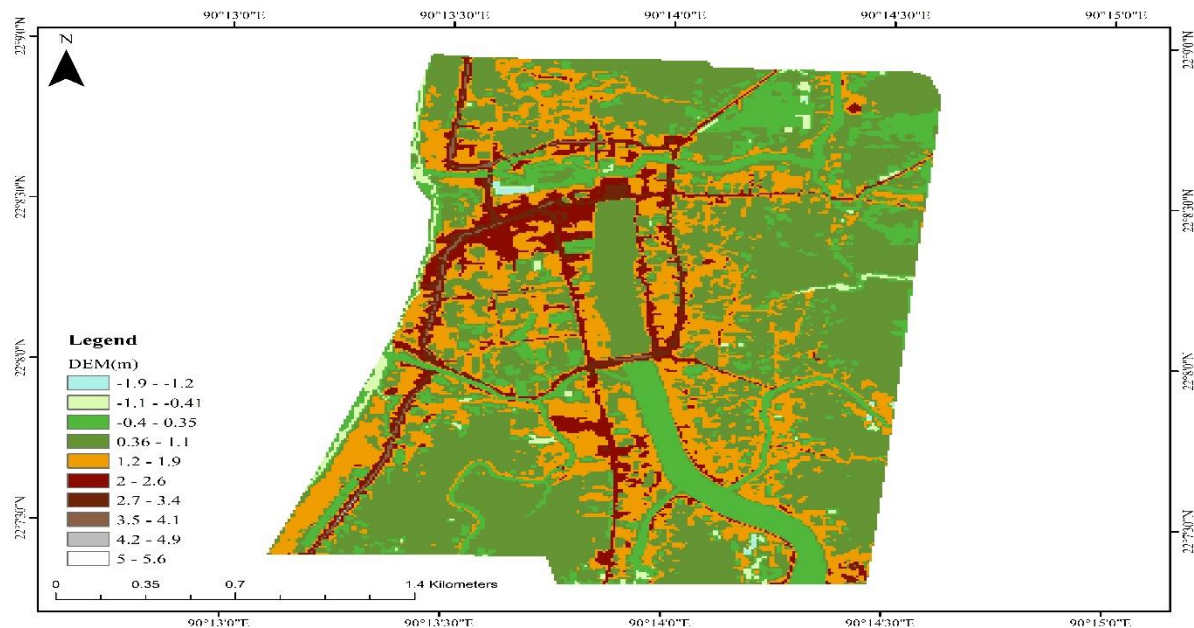
4.4 Existing Drainage Network



Map 4.1: Existing Drainage Network

4.5 Existing Digital Elevation Model (DEM)

Drainage catchments for the Paurashava and urban area are delineated using digital elevation model (DEM) with spatial resolution of 1m which is collected from Tiller consulting firm. However, this DEM is resampled into 10m spatial resolution for the processing of drainage catchment delineation as shown in Map 4.1. The Sub-watershed analysis has been conducted using ArcGIS spatial analysis and Arc hydro extension tools.

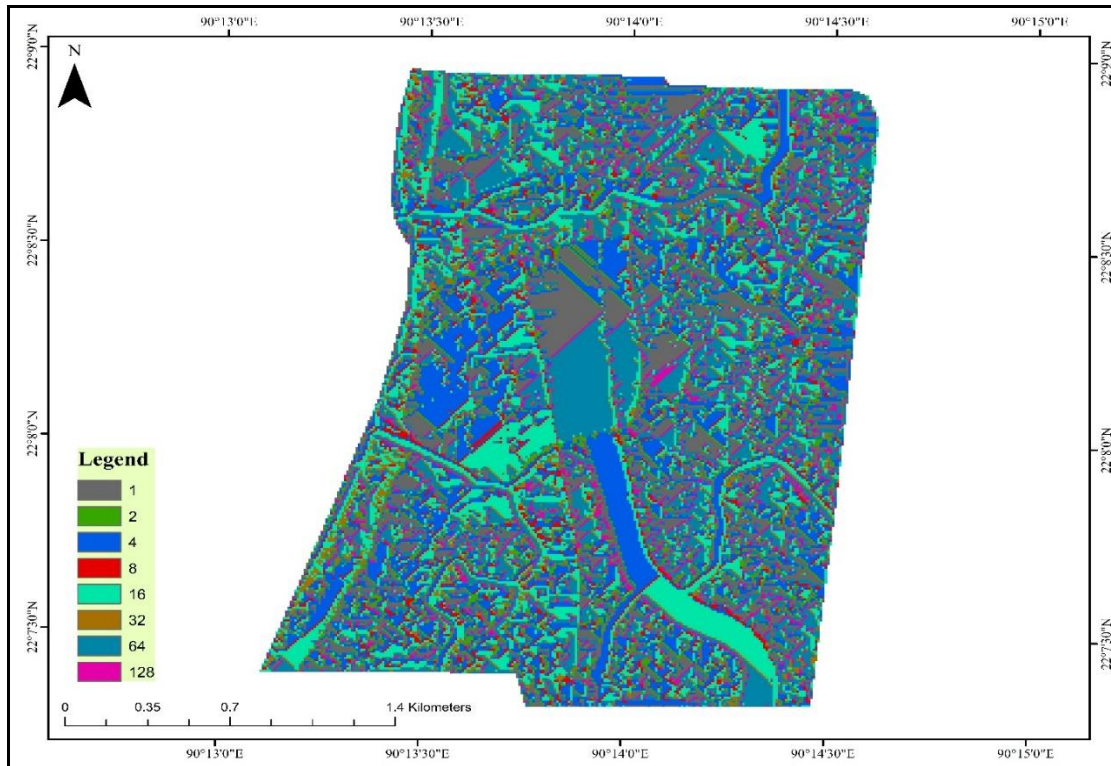


Map 4.2: Digital Elevation Model (DEM) of Amtali Paurashava

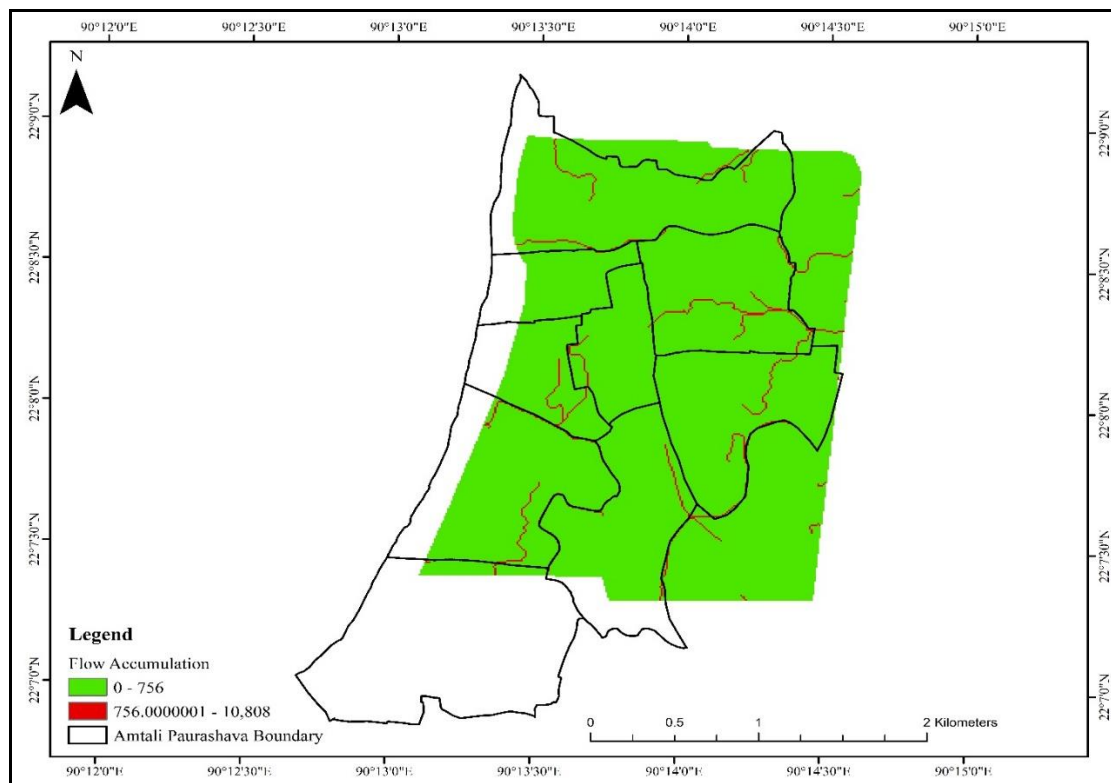
4.6 Flow Direction

Watershed analysis requires fill the sinks (depression) of the study area as first step. The sinks are low elevation areas in DEMs that are surrounded by higher terrain that disrupts the flow path. Filling sinks creates a hydrologically connected DEM for watershed analyses. The fill process helps to raising the value of a cell identified as a sink cell to match the elevation of its downhill neighbor.

Using Arc hydro tool extension of ArcGIS, flow direction has been determined for the study area from the processed DEM. The main concept of the model is that water from cell that would flow to the adjacent cell which has steepest gradient. It also assumes the catchment as depression less without any ponds or pits. After filling the DEM sinks, a flow direction was computed by calculating the steepest slope and by encoding into each cell eight possible flow directions towards the surrounding cells. This is called the 8-direction pour point model to determine flow path. Flow direction maps of all Paurashava and urban area are shown in Map 4.2.



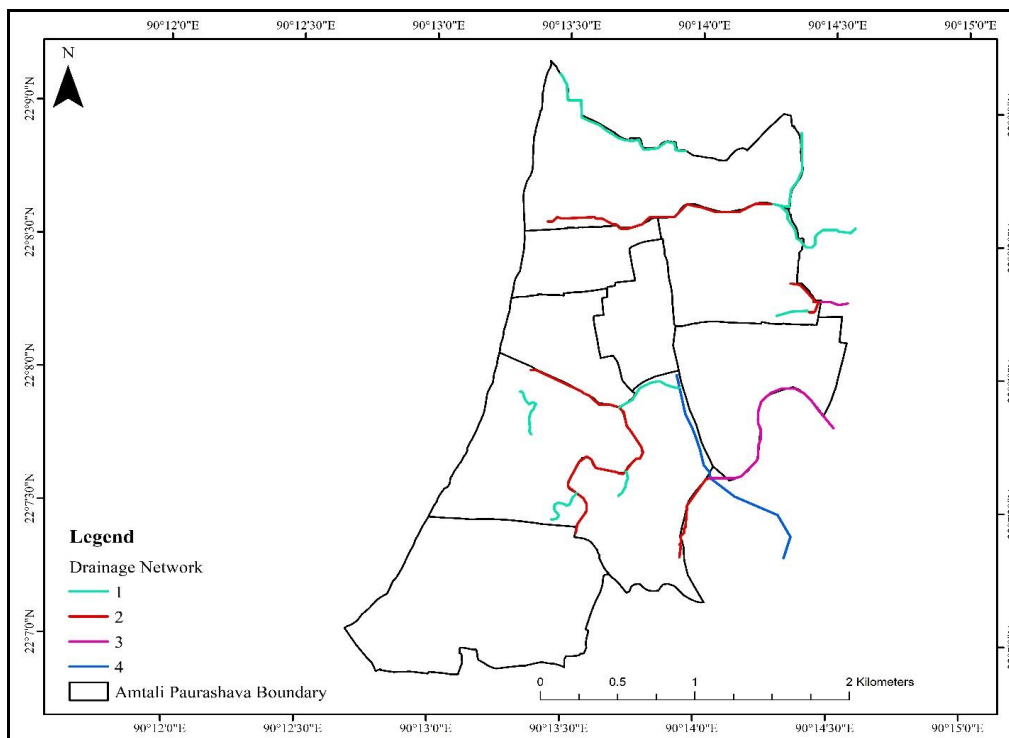
Map 4.3: Flow direction map of Amtali Paurashava



Map 4.4: Flow accumulation map of Amtali Paurashava

4.7 Stream Network

The stream network can be divided into segment which will determine the outlets of the basin. Watershed divide is assumed as a line whose flow accumulation value is zero and those cells, which have flow accumulation value greater than a threshold value provided by the user, is assumed as stream channel or river. After applying trial and error methods, the threshold value of 7% (Amtali) of the longest flow path was used to determine the drainage network. An extensive field survey in Amtali urban area was done to check the accuracy of delineated drainage network. However, some major corrections of delineated drainage network are made on the basis of field report information. Map 4.4 shows the drainage network of the all Paurashava and urban area.

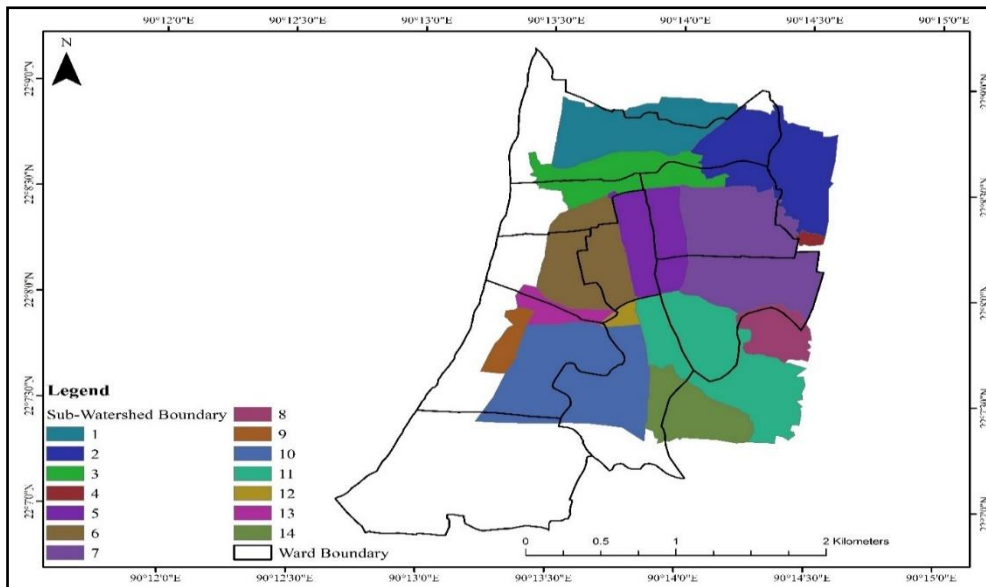


Map 4.5: Drainage network map of Amtali Paurashava.

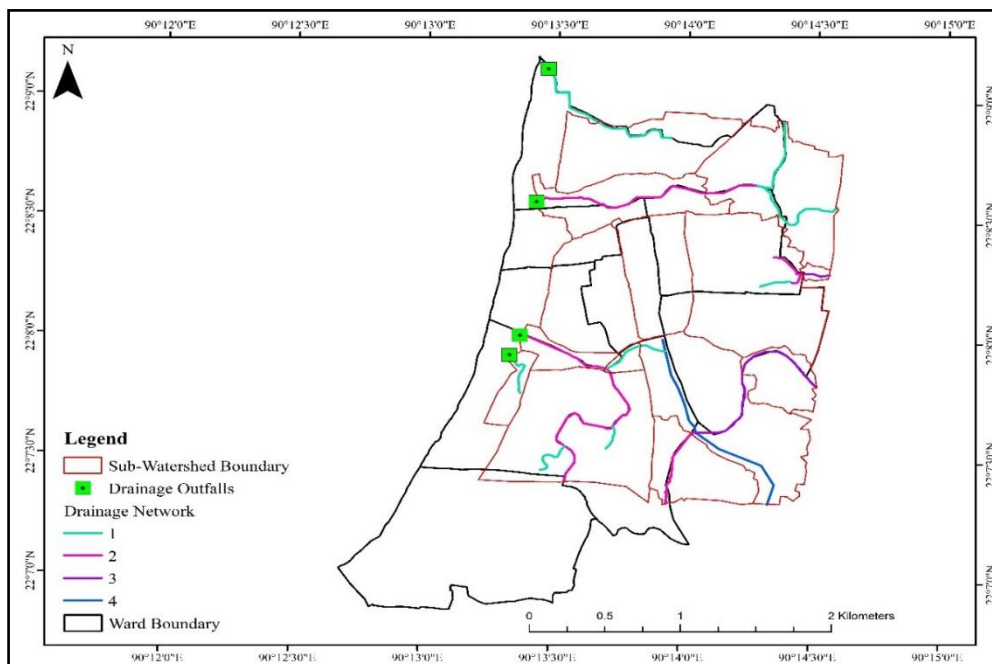
4.8 Drainage Outfall

Based on the above threshold value and field report information, there are 14 sub-catchments and 4 outlets are found in Amtali Paurashava. Based on the above threshold value and field report information, there are 14 sub-catchments and 4 outlets are found in Amtali Paurashava. Moreover, the location of two drainage outlets of Amtali Paurashava are near the Bashasuki

Sluice Gate Road and rest two are near the Wapda Road and all the outlets are fall into the Payra River.



Map 4.6: Sub-catchments map of Amtali Paurashava



Map 4.7: Map of sub-watersheds outlet in Amtali Paurashava

There are only 2 sluice gates exists, without any formal outfall of drains in or outside Amtali Paurashava. The secondary drains mainly discharge storm water to the nearby khals and borrow pits, which will be act as primary drain. One of the existing sluice gates situated by the side of Amtali-Patuakhali road is being proposed to up grate up to three gates. Total 27 drainage out falls and 2 new sluice gates are proposed for drainage development plan of Amtali Paurashava.

This plan should address the major environmental issues facing a paurashava. From environmental agreement perspective it is important that critical areas, natural resource lands and the environment be protected. In addition, environmental infrastructure such as water supply, storm drainage sanitary sewer and solid waste management facilities that are required to mitigate negative environmental consequences resulting from individual and collective human activities, should be properly planned and implemented. Proper management of existing infrastructure and services is also of crucial. This plan should cover the following environmental features and issues where applicable:

Natural Resources

- Forests and natural vegetation Streams and water bodies
- Wetlands
- Water quality
- Air quality

CHAPTER FIVE: URBAN SERVICES, UTILITIES PLANS AND PRIORITY DEVELOPMENT PROJECT

The urban service plan includes following three components-

- Urban Water Supply Management Plan
- Urban Sanitation and Solid Waste Management Plan
- Energy, ICT and Another Urban Services Plan.

The scopes of each of the plan are discussed in the following paragraphs-

5.1 Urban Water Supply Management Plan

The water supply management plan should address the major issues related to water supply and management. The scopes of the plan include:

- a) Outlining the water supply scenario of the Municipality and other urban areas of the upazila considering the projected population for the planning period.
- b) Preparation of detailed inventory of existing drinking water sources (including water quality) through inventory of groundwater resources, and surface water sources within/surrounding the urban areas, and hydro-geological setting of the area; assessment of precipitation characteristics for potential use of rainwater as a water source
- c) Proposal of a more detail layout of water supply system within the urban areas in line with the proposal of the Structure Plan.
- d) Recommendation of a suitable institutional arrangement, for implementation and management of the water supply system in line with relevant rules and regulations of the Government.
- e) Identification and prioritization of relevant projects through rigorous public participation and stakeholder engagement.

5.2 Urban Sanitation and Solid Waste Management Plan

The sanitation and solid waste management plan is concerned with important environmental infrastructure such as sanitary sewer and solid waste management facilities that are required to mitigate negative environmental consequences resulting from individual and collective human activities.

The scopes of this plan include:

- a) Outlining the sanitation and waste management targets for the urban areas including
- b) Preparation of a baseline status for sanitation practices and solid waste generation
- c) Identification of infrastructure and land requirements for complete onsite sanitation system (including fecal sludge management, in line with the institutional and regulatory framework for fecal sludge management of the Government) and solid waste management (focusing on resource recovery options).
- d) Preparation of plan for household wastewater (grey water) disposal options.
- e) Preparation of a plan for inclusive sanitation system for the urban areas, considering onsite sanitation system, including facilities of mechanical desludging and fecal sludge treatment, and decentralized wastewater treatment system (DEWATS).
- f) Designing a solid waste management system in line with the 3R policy of the Government, with waste collection system and solid waste processing site(s) for safe processing (including resource recovery) disposal of solid waste.
- g) Proposal of institutional arrangement for sanitation (including Fecal Sludge Management) and solid waste management, in line with relevant rules and regulations of the Government.
- h) Identification and prioritization of relevant projects through rigorous public participation and stakeholder's engagement.

5.3 Energy, ICT and Other Urban Service Plan

The energy, ICT and other service plan is concerned with allocation of space for the mentioned service sectors to develop their infrastructure, service line and the institutional arrangements that are necessary for efficient implementation of the plan. The plan must also consider future possible expansion of the infrastructure as well as technology changes and shifts along with effects thereof on other domains (e.g., in environment, power requirement).

The scopes of this plan include:

- a) Preparation of detailed inventory of existing energy sources, amount of energy used etc.

- b) Outlining the energy demand for the Municipality and other urban areas of the upazila considering the projected population and economic activities in the planning period.
- c) Allocation of space for infrastructure to meet the future demand of energy system in line with the both sectorial and spatial strategies proposed in the Structure Plan.
- d) Developing a 10-year road map for clean energy, RE and energy conservation strategies in the urban areas of the upazila.
- e) Outlining the ICT infrastructure and service requirement of the upazila considering the projected population for the planning period. Preparation of detailed inventory of ICT infrastructure.

5.4 Priority Development Project

Table 5.1: Sector wise Priority Development projects with Implementing Agencies

Sector	Priority Projects	Financing and Implementing agency
Transport	Road, Bridge, Culver, Terminals and Bus Stops, Taxi, Tempo and Rickshaw Stands	Paurashava and Local Agencies of Ministry of LGRD&C and Ministry of Road Transport & Bridges
Drainage	Drains, Sluice Gate,	Paurashava and Local Agencies of Ministry of LGRD&C
Utilities	Waste Disposal Ground, Waste Collection Point/ Centre for each ward of Paurashava	Paurashava and Local Agencies of Ministry of LGRD&C
Social Services	Community Centre	Paurashava and Local Agencies of Ministry of Social Welfare/Ministry of LGRD&C
Housing	Housing Complex, Satellite Town/ Neighbourhood Town	NHA and Local Agencies of Ministry of Works
Commercial-Industrial	Retail/ Sales/ Neighbourhood Shopping Complex/ Kitchen/ Agro Market	Local Agencies of Ministry of Works & Ministry of LGRD&C

Tourism	Lake Development, Sites for Tourism Development/ River Front Development	Paurashava and Local Agencies of Ministry of LGRD&C & Tourism
Cultural	Eidgah, Graveyard, Crematorium, Mosque, Temple, Pagoda	Paurashava and Local Agencies of Ministry of Cultural Affairs

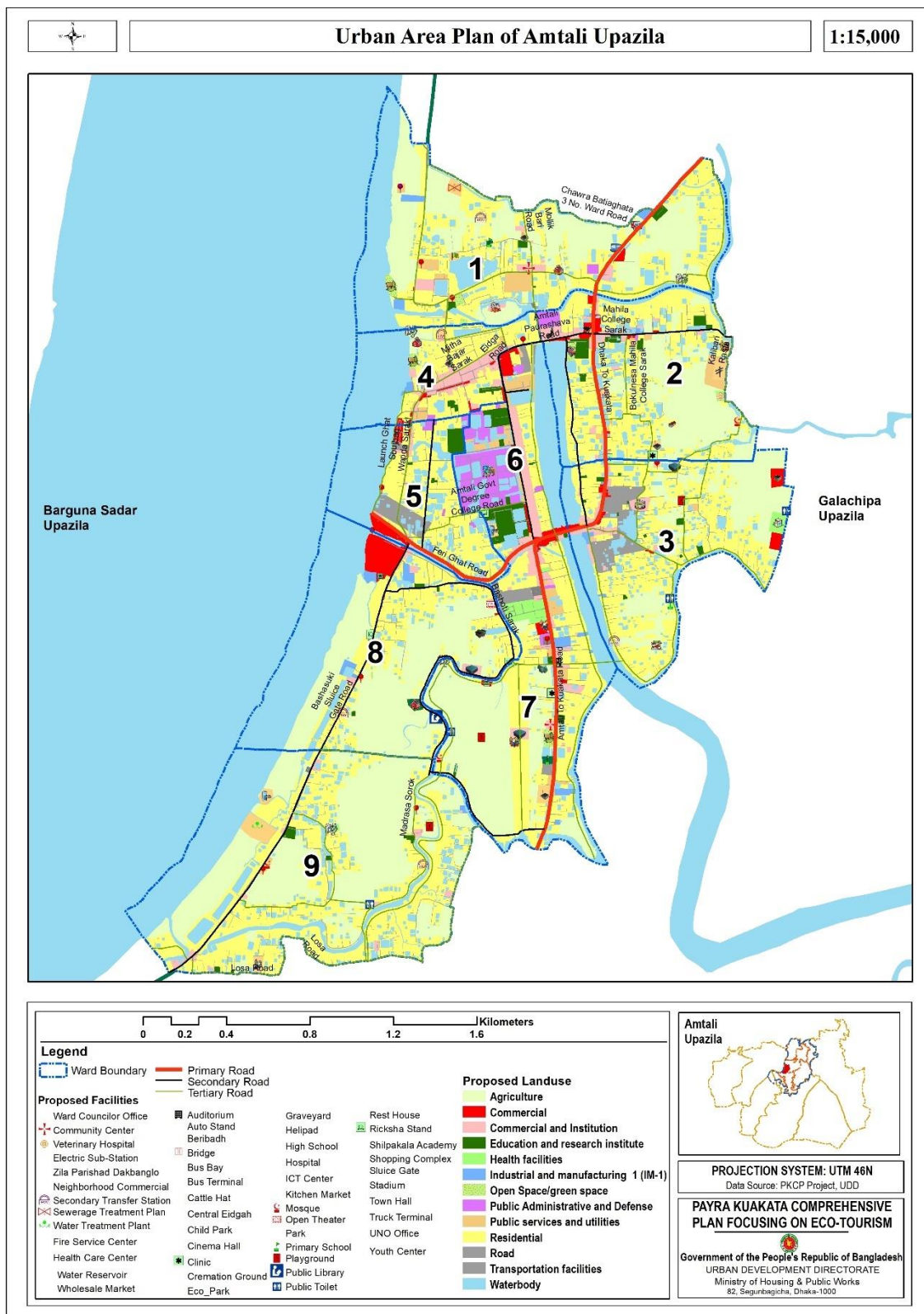
Chapter SIX: Urban Land Use Plan Guideline

6.1 Land Use Plan Guideline

The land use plan is the principal component of the Urban Area Plan. The plan must consider the allocation of land for residence, business, industry, potential municipal facilities, public and private recreation, major institutional facilities, mixed uses, open space and natural and fragile areas. Optimum intensities and standards of development must be established for each use classification and location based upon current development, natural land characteristics, and projected municipal services and facilities.

Allocations of land use must consider impacts on surface and ground water resources, wetlands, coastal features, and other sensitive and fragile natural resources. Judgments must be made on the ability of various existing and new land use controls to properly protect these natural resources.

The characteristics, trends and projections of population and employment will be essential input to the allocation of land areas for use. The plan should show how the projections have been used to determine amounts of land needed for residential, industrial, and other purposes. These quantitative relationships carry over to other components of the plan in that certain facilities and services (utilities, transportation, recreation areas etc.) are needed to support the land allocation to each use.



Map 6.1: Urban Plan Map of Amtali Paurashava

6.2 Land Use Plan Components

Designation of Land Use

One of the objectives of land use plan is to designate appropriate areas for residential, commercial, industrial, parks and open space, and various types of community and public facilities that will be mutually supportive, equitably distributed and will accommodate the projected need for reasonable development opportunities in each sector. Following is the classification of land use that may be used as a guide for designating appropriate areas for different types of land uses in the potential paurashava depending upon its size and its socio-economic and physical characteristics.

Land Development Management Zones

As a basis of land development management for Amtali Upazila, the urban area plan designates fourteen development management zones as listed below and which are indicated on the potential urban area plan map.

Table 6.1: Land Development Management Zones

<u>Zone Title</u>	<u>Code</u>
Agriculture	AG
Commercial	COM
Community facilities	CF
Education and research institute	ERI
Health facilities	HF
Industrial	IND
Mixed use	MIX
Non-government organization	NGO
Open space	OS
Public administration and defense	PAD
Public services and utilities	PSU
Residential Land use	RL
Transportation Facilities	TF
Urban Green Space	UGS

For each of these zones, land uses are indicated in three categories are permitted uses, conditional uses and use requiring a special plan review.

Agriculture Use

Relevant Structure Plan Policy

AP-1: Save and protect at least double and triple cropped agriculture lands.

AP-2: Keep suitable agriculture lands free from any kind of encroachments particularly from human settlements.

AP-3: Increasing crop intensity while conserving existing agricultural land and keeping water bodies (canals and rivers) active for the sustainable agriculture development.

Purpose and intent-The purpose of the agriculture zone is to protect and preserve the agriculture land for urban encroachment and development. Mainly existing use consisting of

- Cropland
- Orchard
- Horticulture
- Sericulture
- Dairy Farm
- Poultry Farm

Table 6.2: Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
<ul style="list-style-type: none">- Dwellings, farm- Dwellings, minimal housing- Dwellings, single/multi-family- Flood management structures- Recreation facilities, outdoor - Religious uses & structures- Repair shops, minor- Retail shops & restaurants- Retention ponds/khals- Utility installations Type A	<ul style="list-style-type: none">Graveyards/CemeteriesParking facilities, commercialPetrol/service stationsSchools, privateWarehousing/Distribution

Mixed use

An area where no single land use is overwhelmingly dominant and may contain various types of uses such as

- Residential
- Commercial
- Institutional
- Community facilities
- Parks and playground

Purpose and Intent

The purpose and intent of the mixed use planned is to allow a variety of residential densities and some commercial uses in residential neighborhoods. The allowed commercial uses are intended to support the daily and weekly commercial service needs neighborhood, conserve energy by lessening automobile dependency, and enable more diverse neighborhoods that optimize the use of both land and available urban services and facilities. Mixed uses may occur both horizontally and vertically, but controls are established to maintain the character of these neighborhoods primarily as residential areas.

Table 6.3: Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
<ul style="list-style-type: none">- Clinics, medical- Clubs, private / Restaurants - Ferry ghats & jetties- Dwellings, farm- Dwellings, minimal housing- Dwellings, single/multi-family- Embassies, high commissions - Flood management structures- Hotel, guest house- Institutions- Offices/Services- Public uses & structures- Recreation facilities, outdoor - Religious uses & structures- Repair shops, minor- Retail shops & restaurants- Retention ponds/khals- Schools, government & religious- Utility installations Type A	<p>Graveyards/Cemeteries Cinemas Industrial class 2 uses Major development Parking facilities, commercial Petrol/service stations Schools, private Warehousing/Distribution</p> <p>PLAN REVIEW REQUIRED Colleges/Universities Hospitals Stadium, sports Prisons Shopping centers / Large markets Terminals: train/bus/freight Trade centers Hotels, international class Utility installations Type B</p>

Industrial Land Use

The objective is to designate areas to provide for a variety of industrial and public utility land use including quasi industrial parks, light industrial and general industrial activities.

Type of industrial land use

The future land use map should include one or more of the following categories of land uses depending on the characteristics of the town:

Quasi-industrial areas: Such areas provide for a mixture of whole sale and warehousing activities, as well as some limited office and retail land uses.

Light industrial: This designation is suited to lighter or service-oriented activities. Typical activities include, but not limited to, the production of handcrafted goods, electronics equipment, components related to instrumentation and measuring devices, bio-medical and telecommunications technologies, computer parts and software, optical and photographic equipment and processing and packaging activities which are non-offensive and do not involve processes which generate significant levels of bat, noise odors and /or particulate, and do not involve chemicals or other substances which pose a threat to health and safety.

General Industrial: Such areas are sailable for a wide range of industrial acclivities involving significant mechanical and chemical processes or large amount metal transfer. Typical activities include but are not limited to paper and textile milling, wood processing and the production of prefabricated structural products; the manufacture of soaps and detergents; rubber processing and the manufacture of rubber products; the production of vehicles; machinery and fabricated metal products; electroplating; cement making and the production of concrete; gypsum and related products; and the production of chemical products; perfumes and pharmaceuticals; and the production of paving and roofing materials.

Relevant Structure Plan Policy

EZ-01: Light industries need to be developed to flourish the industrial sector development

Table 6.4: Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
Roads/Railways/Utility - Clinics, medical - Ferry ghats & jetties - Flood management structures - Industrial Class 2 uses - Institutions - Parking facilities, commercial - Petrol/service stations	- Graveyards / Cemeteries - Clubs, private -Dwellings, minimal housing - Industrial Class 3 uses - Salvage, scrap storage & processing - Offices/Services Utility installations Type B

<ul style="list-style-type: none"> - Public uses & structures - Recreation facilities, outdoor - Religious uses & structures - Repair shops, major - Repair shops, minor - Retail shops & restaurants - Retention ponds/khals - Ship & boat servicing - Utility installations Type A - Warehousing/Distribution 	<p>PLAN REVIEW REQUIRED</p> <ul style="list-style-type: none"> - Hospitals - Major development - Prisons - Terminals: train, bus, freight - Waste disposal & processing
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Residential Land Use

The objective is to designate sufficient area within the town to accommodate the projected need for residential living opportunities with an array of densities and building intensities capable of providing a full range of housing options in a harmonious manner.

Types of Residential Land Use

Low density Residential: This designation is intended primarily for low-density, single family, detached residential dwellings and vacant land with constraints to development at higher densities. Areas where availability of utilities and public facilities and where sensitivity to the natural environment or natural hazards indicate reduced sensitivity, are appropriate for such type of low- density development. Commercial development in such areas should be limited to only neighborhood retail facilities.

Medium - Density Residential: This designation is intended primarily for medium density detached and attached residential dwellings, including existing developed areas and vacant lands suited to single or multi-family structures and necessary supporting facilities and utilities. Appropriate locations would be near institutional uses and as buffer areas separating higher density residential and commercial activities from lower density residential areas.

High-Density Residential: This designation is suited to intense residential activity in multi-family configurations and other uses that can be integrated into this designation without being unduly detrimental to its residential character. Lands suited to this designation would be close to shopping and employment centers and areas adjacent to commercial uses to serve as buffer between non-residential activities and lower density residential areas.

Relevant Structure Plan Policy

RS-1: Lay strong emphasis to develop rural infrastructure

RS-2: Impose restriction on non-agricultural development on agricultural land

RS -3: Introduce permit system for construction in rural areas

RS-4: Keeping rural development within established frameworks for rural settlement.

Table 6.5: Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
<ul style="list-style-type: none">-Roads/Railways/Utility- Clinics, medical- Ferry ghats & jetties- Flood management structures- Industrial Class 2 uses- Institutions- Parking facilities, commercial- Public services & structures- Recreation facilities, outdoor - Religious uses & structures- Retail shops & restaurants- Retention ponds/khals- Warehousing/Distribution	<ul style="list-style-type: none">- Graveyards / Cemeteries- Clubs, private-Dwellings, minimal housing- Industrial Class 3 uses- Salvage, scrap storage & processing- Offices/Services-Utility installations Type B PLAN REVIEW REQUIRED <ul style="list-style-type: none">- Industry- Hospitals- Major development- Prisons- Terminals: train, bus, freight - Waste disposal & processing

Commercial Land Use

The objective is to designate sufficient land within the towns planning area to accommodate the projected need for commercial opportunities, promote economic diversification and to provide the goods and services needed within the planning area.

Types of commercial land uses:

The future land use designations would include the following categories of commercial uses, which vary in intensity by function and location.

Neighborhood Commercial: Such uses include convenience retail and service establishments relying upon frequent purchases and having small trade areas. These uses are compatible with, and may be located in, residential areas.

Community Commercial: Areas for commercial activities to meet retail shopping and service needs of the community. Accommodates clusters of retail, financial, professional service business and entertainment activities that attract shoppers from an area significantly larger than a neighborhood.

Arterial Commercial: Land uses such as restaurants and service stations as well as wholesale and retail activities located on arterial streets.

Central Business District (CBD)/Town Centre: This area provides for a variety of employment opportunities in a well-designed and pedestrian-friendly commercial core. CBD should be provided with public facilities and public open spaces, pedestrian friendly circulation, retail stores and services, offices, community services, entertainment facilities and residential dwelling units in conjunction with an appropriate Commercial / office use.

Relevant Structure Plan Policy

PU-01: Prepare more detailed land use zoning for potential Paurashava/urban areas.

PU-02: Limiting urban expansion to the Proposed Urban Area

Table 6.6: Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
<ul style="list-style-type: none"> -Roads/Railways/Utility - Clinics, medical - Ferry ghats & jetties - Flood management structures - Industrial Class 2 uses - Institutions - Parking facilities, commercial - Petrol/service stations - Public uses & structures - Recreation facilities, outdoor - Religious uses & structures - Retail shops & restaurants - Retention ponds/khals - Warehousing/Distribution 	<ul style="list-style-type: none"> - Clubs, private -Dwellings, minimal housing - Industrial Class 3 uses - Salvage, scrap storage & processing - Offices/Services -Utility installations Type B <p>PLAN REVIEW REQUIRED</p> <ul style="list-style-type: none"> - Industry - Hospitals - Major development - Prisons - Terminals: train, bus, freight - Waste disposal & processing

Open space

The objective is to develop a high-quality, diversified park, recreation and open space system that benefits citizens of various incomes and physical abilities.

Types of open space

The future land use map may include following types of open space depending on the size and characteristics of the Paurashava Town:

Parks: This category may include

- Regional park serving the town and adjoining areas and emphasizing an outdoor setting and usually having facilities for activities such as picnicking, swimming etc.
- Urban park serving the town and emphasizing passive recreation. This may also have picnic and zoo areas.
- Community park which emphasizes active recreation and should be within three miles of the area it serves.
- Neighborhood parks which are designed to be within the neighborhood (or within half to one-kilometer radius of the area they serve) and are related to the neighborhood character.
- Pocket parks are areas which satisfy special needs - a place for relaxation in a dense urban area; a spot for a specific recreational activity; an outdoor urban space; or they simply afford verbal pleasure.

Play-Grounds: This may include

- Stadium
- Playing-fields. Community and neighborhood parks may also include playing fields. Playing fields of the schools belong to this category.
- Play-lot, usually designed for small children.

Natural and undeveloped resource Areas: This may include:

- Lands that preserve wild life habitat and fragile ecosystems such as wooded areas, ravines, etc.
- Lands that preserve unique scenic features such as wooded views from urbanized areas.
- Lands that contain potential recreational value for passive uses such as picnicking, walking jogging, bicycling, bird watching or simply resting.
- Areas that can be integrated with existing or proposed community parks.

Relevant Structure Plan Policy

POLICY-01: Conservation of park and playground

Table 6.7 Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
<ul style="list-style-type: none"> -Roads/Railways/Utility - Clinics, medical - Ferry ghats & jetties - Flood management structures - Industrial Class 2 uses - Institutions - Parking facilities, commercial - Petrol/service stations - Public uses & structures - Recreation facilities, outdoor - Religious uses & structures - Retail shops & restaurants - Retention ponds/khals - Warehousing/Distribution 	<ul style="list-style-type: none"> - Clubs, private -Dwellings, minimal housing - Industrial Class 3 uses - Salvage, scrap storage & processing - Offices/Services -Utility installations Type B <p>PLAN REVIEW REQUIRED</p> <ul style="list-style-type: none"> - Industry - Hospitals - Major development - Prisons - Terminals: train, bus, freight - Waste disposal & processing

Community Facilities

The plan should ensure that the community facilities are properly distributed throughout the town so the people of the town are adequately served. Community facilities should include the following:

- Community Centre
- Cinema Halls
- Theatres
- Town Hall
- Gymnasium
- Mosque
- Temple (Mondi)
- Church

Relevant Structure Plan Policy

POLICY-01: Conservation of park and playground

Table 6.8 Permitted and conditional uses

<p style="text-align: center;">PERMITTED USES</p> <ul style="list-style-type: none"> -Roads/Railways/Utility - Clinics, medical - Ferry ghats & jetties - Flood management structures - Industrial Class 2 uses - Institutions - Parking facilities, commercial - Petrol/service stations - Public uses & structures - Recreation facilities, outdoor - Religious uses & structures - Retail shops & restaurants - Retention ponds/khals - Warehousing/Distribution 	<p style="text-align: center;">CONDITIONAL USES</p> <ul style="list-style-type: none"> - Clubs, private -Dwellings, minimal housing - Industrial Class 3 uses - Salvage, scrap storage & processing - Offices/Services -Utility installations Type B <p style="text-align: center;">PLAN REVIEW REQUIRED</p> <ul style="list-style-type: none"> - Industry - Hospitals - Major development - Prisons - Terminals: train, bus, freight - Waste disposal & processing
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Public Services and Utilities

The plan should provide the residents with adequate public services in vent/appropriate locations, to permit the delivery of services to meet the needs of all ramps and Localities Following services and utilities are included in this category:

- Postal services
- Water supply (Treatment point/intake point set)
- Fire Services
- Sewerage treatment/disposal area
- Waste disposal areas
- Power station
- Graveyard

Relevant Policy

POLICY-01: Conservation of park and playground

Table 6.9: Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
<ul style="list-style-type: none"> -Roads/Railways/Utility - Clinics, medical - Ferry ghats & jetties - Flood management structures - Industrial Class 2 uses - Institutions - Parking facilities, commercial - Petrol/service stations - Public uses & structures - Recreation facilities, outdoor - Religious uses & structures - Retail shops & restaurants - Retention ponds/khals - Warehousing/Distribution 	<ul style="list-style-type: none"> - Clubs, private -Dwellings, minimal housing - Industrial Class 3 uses - Salvage, scrap storage & processing - Offices/Services -Utility installations Type B PLAN REVIEW REQUIRED - Industry - Hospitals - Major development - Prisons - Terminals: train, bus, freight - Waste disposal & processing

Communication and Transportation

The plan should ensure that communication and transport facilities are properly located so as to accommodate the needs of the town's residents. This category would include the following:

- Radio Station
- Telephone exchanges building
- Railway (including right of way)
- Bus, truck, taxi terminal
- Rickshaw/Tempo Stand
- Launch/Boat/Steamer Terminals

Public Administration and Defense:

This category includes the following:

- Air fields
- Biman/Biman/Another airline Office
- Lands and building belonging to
- Armed forces
- BDR
- Police
- Ansar
- BNCC

Roads

The plan should provide for safe and efficient roadway transportation facilities capable of accommodating motorized and non-motorized needs of the town, Streets in a town should be classified in the following way.

Arterial streets: intended to provide important access within the town and provide important link to other fond classification

Collector streets: connect residential neighborhoods with community centers and facilities as well as provide access to the arterial streets

Access streets have a variety of functions to perform with the principal purpose to provide vehicular and pedestrian access to property abutting the public right of way

Rural Homestead

Mainly existing land use consisting of dwelling units, kitchen, latrine, out-house, kitchen garden, cowshed and courtyard

Community Facilities and services

This component should provide an inventory of existing and forecasted needs for facilities and services used by the public such as educational faculties, health care facilities, community centers etc. This of the land use plan should cover the entire range of community facilities and requires the following steps in planning:

- An inventory of existing community facilities and services, appropriately mapped. This should include all publicly operated facilities and services plus quasi-public and private facilities that provide services to the people.
- A general analysis of the effectiveness of each such facility and service, noting any deficiencies in quality and quantity of services provided.
- A forecast of current and future needs for such facilities and services, based largely upon projections of land usage and population change. The forecast should be based upon generally accepted standards of need.
- Specification of policies and actions designed to accomplish the following:
 - eliminate current deficiencies and provide improvements in services and facilities

Relevant Structure Plan Policy

POLICY-01: Conservation of park and playground

Table 6.10 Permitted and conditional uses

PERMITTED USES	CONDITIONAL USES
<ul style="list-style-type: none">-Roads/Railways/Utility- Clinics, medical- Ferry ghats & jetties- Flood management structures- Industrial Class 2 uses- Institutions- Parking facilities, commercial- Petrol/service stations- Public uses & structures- Recreation facilities, outdoor - Religious uses & structures- Retail shops & restaurants- Retention ponds/khals- Warehousing/Distribution	<ul style="list-style-type: none">- Clubs, private-Dwellings, minimal housing- Industrial Class 3 uses- Salvage, scrap storage & processing- Offices/Services-Utility installations Type B PLAN REVIEW REQUIRED <ul style="list-style-type: none">- Industry- Hospitals- Major development- Prisons- Terminals: train, bus, freight - Waste disposal & processing

e) Institutional Uses

The plan should provide for appropriate siting of various institutions so as to accommodate the needs of the areas' residents. Institutional uses would include:

- Educational institutions such as kinder gardens; primary, secondary and higher secondary schools; colleges and university; madrasahs; Technical and vocational institutions
- Research and training institution
- Social welfare organization
- Health care facilities such as hospitals clinics, dispensaries etc.
- Public libraries
- Museums and art galleries
- Orphanage

g) Cemetery/Cremation area

6.3 Ward Action Plan Proposal

6.3.1 Background

The Ward Action Plans are prepared under the framework of Structure Plan and Urban Area.

Plan. The Ward Action Plans contain details of development proposals at Ward level including the problems and opportunities existing therein and also include the proposals made in the upper level plan that is in the Urban Area Plan. The Ward Action Plans have been formulated for execution within a period of 5 years.

Ward Action Plan is a vital part of the current plan package as far as spatial development and development control is concerned. Absence of Ward Action Plan not only hampers undertaking of development projects by planning authority, but also leads to uncontrolled and unwanted spatial development in the private sector. Land use zoning is also provided in the Ward Action Plan to enable detailed view of proposed land use and development.

Review of Existing Land Use

6.3.2 Existing Land use of Amtali Paurashava

Out of total 1599.96 acres of land of this ward, more than 16.60 acres of land i.e. 33.08% is used in residential. The agricultural use with 487.75 acres, occupies 30.48% of total land, water bodies 26.53%, commercial use 0.94%, mixed use 1.55% and Transportation and Communication 16.03%. Only 1.34% of land is used as education facilities.

Table 6.11: Existing Land use

Existing Land use			
Sl. No.	Land use Type	Area	%
1	Administrative/ Public Service	21.91	1.37
2	Agriculture	487.75	30.48
3	Commercial	15.03	0.94
4	Community Service	11.21	0.70
5	Education and Research	21.44	1.34
6	Health Service	4.76	0.30
7	Manufacturing and Processing	13.21	0.83
8	Mixed Use	24.73	1.55
9	Open Space and Recreational	1.67	0.10
10	Residential	529.21	33.08
11	Road	19.01	1.19
12	Service Activity	9.52	0.59
13	Transportation and Communication	16.03	1.00
14	Waterbody	424.51	26.53
	Total	1599.969	100

6.3.3 Proposed Land use for Urban Area Plan

Out of total 1599.96 acres of land of this ward, more than 542.38 acres of land i.e. 33.90% is used in residential. The agricultural use with 344.04 acres, occupies 21.50% of total land, water bodies 26.53%, commercial use 1.60%, Public services and utilities 2.90% and Transportation Network 5.62%. Only 1.50% of land is used as education facilities.

Table 6.12: Proposed Land use

Proposed Land use			
Sl. No.	Land use	Area	%
1	Agriculture	344.04	21.50
2	Commercial	25.62	1.60
3	Commercial and Institution	51.07	3.19
4	Education and research institute	24.02	1.50
5	Health facilities	9.23	0.58
6	Industrial and manufacturing 1 (IM-1)	10.29	0.64
7	Open Space/green space	9.69	0.61
8	Public Administrative and Defense and Community Facilities	22.97	1.44
9	Public services and utilities	46.34	2.90
10	Residential	542.38	33.90
11	Transportation Network	89.87	5.62
13	Waterbody	424.47	26.53
	Total	1599.96	100

6.3.3.1 Ward Action Plan for Ward No. 01

The category wise proposals are presented here. Table 12 shows the amount of land uses in Ward no. 1. Map shows proposed land use of Ward 01.

Table 6.13: Population Statistics of Ward No. 01

Item	2011	2022	2031	2041
Area (acre)	257.83			
Population	1011	2212	2644	3037

Table 6.14: Existing Land Uses of Ward No. 01

Existing Land Use	Area (Acre)	%
Administrative/ Public Service	0.62	0.24
Agriculture	92.87	36.02
Commercial	0.03	0.01
Community Service	2.07	0.80
Education and Research	1.55	0.60
Manufacturing and Processing	2.26	0.88
Mixed Use	0.82	0.32
Open Space and Recreational	0.72	0.28
Residential	81.94	31.78
Road	0.33	0.13
Service Activity	0.68	0.26
Transportation and Communication	0.94	0.36
Waterbody	73.01	28.32
Total	257.83	100.00

Table 6.15: Proposed Land Uses of Ward No. 01

Proposed Land use	Area (Acre)	%
Agriculture	87.17	33.81
Commercial	0.02	0.01
Commercial and Institution	2.59	1.01
Education and research institute	1.55	0.60
Health facilities	1.00	0.39
Industrial and manufacturing 1 (IM-1)	2.26	0.88
Open Space/green space	0.72	0.28
Public Administrative and Defense	0.62	0.24
Public services and utilities	8.58	3.33
Residential	82.54	32.01
Road	0.33	0.13
Transportation facilities	0.94	0.36
Waterbody	69.52	26.96
Grand Total	257.83	100.00

Development Proposals for Ward No-1

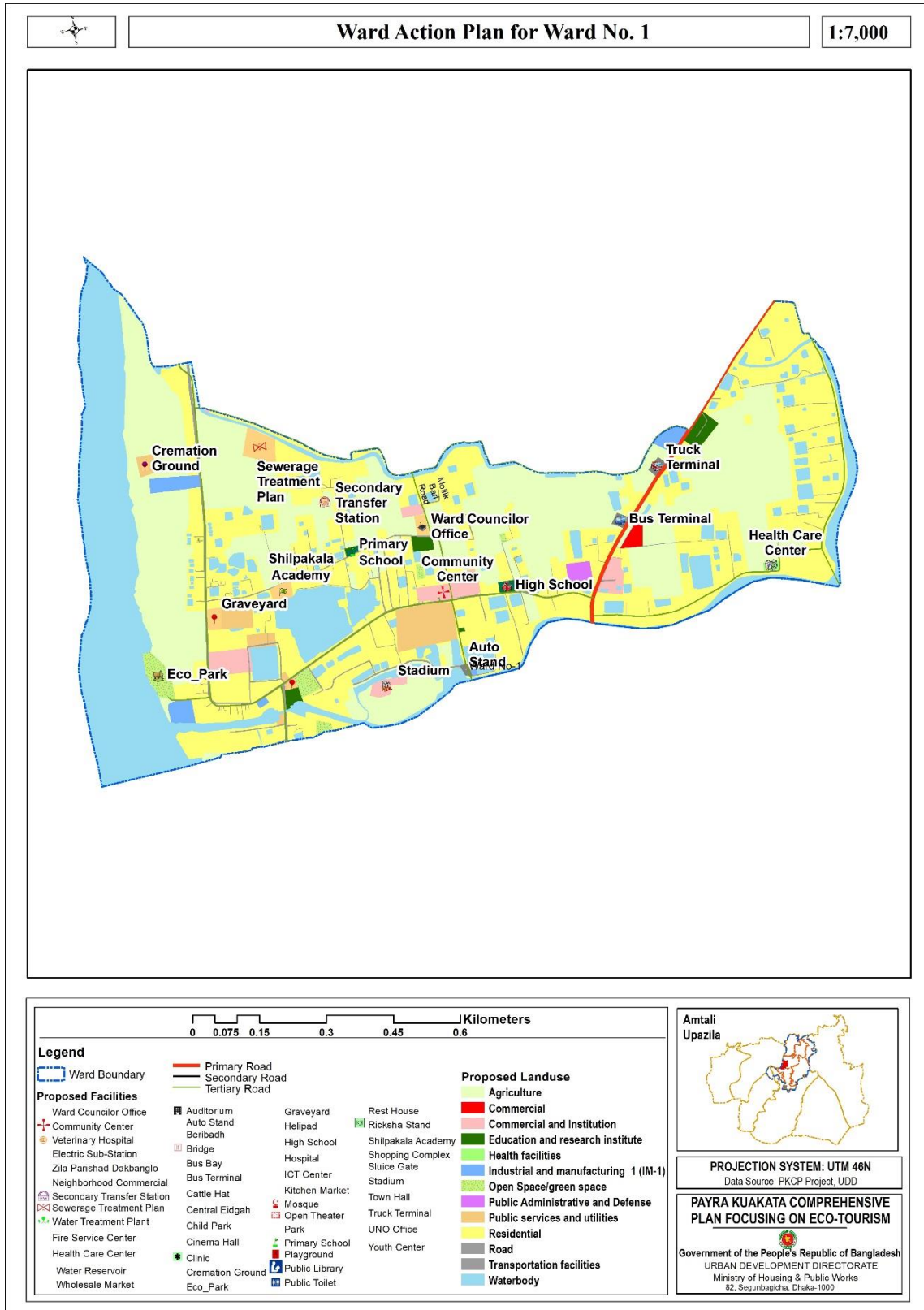
The consultant proposes some urban facilities in Ward No-1. It includes Shilpakala Academy, Graveyard, Park, Administrative Office, Truck Terminal etc. The details of the proposal are given in the table below.

Table 6.16: Development Proposals for ward 01 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
North Urban Fringe	Agriculture	Chowra	30	1	109, 136, 143, 144, 154, 157, 194, 241, 273, 486, 508, 525
North Urban Fringe	Agriculture	Ghatkhali	29	2	1808, 1854, 1969, 1979, 1997, 2042
North Urban Fringe	Commercial	Ghatkhali	29	2	2043
North Urban Fringe	Commercial	Chowra	30	1	36, 559, 565, 605
North Urban Fringe	Commercial and Institution	Chowra	30	1	157, 205, 50, 73, 465, 524, 526, 528, 546, 558, 563, 566, 608, 609
North Urban Fringe	Commercial and Institution	Ghatkhali	29	2	1854, 1975, 1978
North Urban Fringe	Education and research institute	Chowra	30	1	153, 164, 401, 468
North Urban Fringe	Education and research institute	Ghatkhali	29	2	2060
North Urban Fringe	Industrial and manufacturing 1 (IM-1)	Ghatkhali	29	2	1877, 2053
North Urban Fringe	Industrial and manufacturing 1 (IM-1)	Chowra	30	1	73, 525, 526, 564, 568
North Urban Fringe	Open Space/green space	Chowra	30	1	151
North Urban Fringe	Open Space/green space	Ghatkhali	29	2	2491
North Urban Fringe	Public Administrat	Chowra	30	1	224, 172, 73, 83, 92,

	ive and Defense				
North Urban Fringe	Residential	Chowra	30	1	102,120,139,141,144,150,153,157,178, 180, 191, 220,264,291,50,69,73,467,468,501, 508,514,523,592,199,207
North Urban Fringe	Residential	Ghatkhali	29	2	1854,1869, 1916,1917,1919,1927,1964,1969,1971,1975,1979,1990,1991,2048,2056, 2076,2084,2097,2116,2120, 1997
North Urban Fringe	Transportati on facilities	Chowra	30	1	123,141,144,146,148,149,150,154,200,207,214,215,220,224,36,50,73,83,84,92,79,84
North Urban Fringe	Transportati on facilities	Ghatkhali	29	2	1,808,187,718,861,880
North Urban Fringe	Waterbody	Chowra	30	1	119,120,122,136,140,144,146,149,151,152,154,155,157,158,170,179,180,205,206,207,214,218,220,227,228
North Urban Fringe	Waterbody	Chowra	30	1	231,234,235,241,251,253,
North Urban Fringe	Waterbody	Chowra	30	1	258,259,262,264,275,278,
North Urban Fringe	Waterbody	Chowra	30	1	279,285,286,288,291,71,73,81,83,95,98,468,492,507,
North Urban Fringe	Waterbody	Chowra	30	1	514,515,519,522,525,526,
North Urban Fringe	Waterbody	Chowra	30	1	528,538,539,540,545,546,551,552,554,557,564,567,
North Urban Fringe	Waterbody	Chowra	30	1	568,569,571,574,582,54,55,57,58,59,61,62,66,78,89,945
North Urban Fringe	Waterbody	Ghatkhali	29	2	1886,1889,1901,1902,1907,1908,1916,1917,1918,
North Urban Fringe	Waterbody	Ghatkhali	29	2	1919,1920,1924,1927,1928,1929,1954,1955,1956,1957,1959,1962,1964,1965,
North Urban Fringe	Waterbody	Ghatkhali	29	2	1966,1969,1975,1980,1983,1986,2027,2031,2042,2043, 2052,2055,2057, 2061,
North Urban Fringe	Waterbody	Ghatkhali	29	2	2071,2072,2074,2078,2079,2080,2082,2083,2084,2087,2096,2097,2099,2104,
North Urban Fringe	Waterbody	Ghatkhali	29	2	2111,2112,2118,2119,2120,21415,
North Urban Fringe	Commercial and	Chowra	30	1	601,156,157,154,1990,

	Institution				
North Urban Fringe	Commercial and Institution	Chowra	30	1	153,154,157,155
North Urban Fringe	Education and research institute	Ghatkhali	29	2	1990,1977,1964,1957,1964,
North Urban Fringe	Education and research institute	Chowra	30	1	211, 207,50
North Urban Fringe	Health Facilities	Ghatkhali	29	2	2043
North Urban Fringe	Open Space/green space	Chowra	30	1	36
North Urban Fringe	Public services and utilities	Ghatkhali	29	2	19,161,918
North Urban Fringe	Public services and utilities	Ghatkhali	29	2	1870,1916,1936,1916,
North Urban Fringe	Public services and utilities	Ghatkhali	29	2	196,619,181,916
North Urban Fringe	Transportation Facilities	Chowra	30	1	102,171,514,178,180,466,
North Urban Fringe	Transportation Facilities	Chowra	30	1	175,174,178
North Urban Fringe	Transportation Facilities	Ghatkhali	29	2	2045,2026,2045,2042,2050,



Map 6.2: Ward Action Plan for Ward No-1

6.3.3.2 Ward Action Plan for Ward No. 02

Demography

Ward No. 2 consists of the mouza named Amtali. It is situated on the southern part of the Paurashava and Ward No. 1 and 3 is on the north, Upazila area on the south, and Ward No. 3 on the west.

Present population of the Ward is 3664 (2022) and it will 6947 in the year 2031 and 11425 in 2041. Density of population is 21 persons per acre and it will be 39 in the year 2031.

Table 6.17: Population Statistics of Ward No. 02

Item	2011	2022	2031	2041
Area (acre)	174.83			
Population	1800	3664	6947	11425

Review of Existing Land Use

Out of total 2485 acres of land of this ward, i.e. 12.92% is used in residential. The agricultural use with 115 acres, occupies 4.63% of total land, water bodies 1283acre and %, commercial use 0.09%, mixed use 0.11% and Transportation and Communication 51.63%. Only 0.12% of land is used as health facilities.

Table 6.18: Existing Land use category in Ward-02

Existing Land Use	Area (Acre)	%
Administrative/ Public Service	3.37	1.93
Agriculture	47.62	27.24
Commercial	4.49	2.57
Community Service	0.82	0.47
Education and Research	4.72	2.70
Manufacturing and Processing	1.10	0.63
Mixed Use	2.92	1.67
Residential	52.50	30.03
Road	7.34	4.20
Service Activity	1.57	0.90
Waterbody	48.37	27.67
Total	174.83	67.81

Ward Action Plan Proposals

Proposed Land Use Zoning

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 2. Map shows proposed land use of Ward 02.

Table 6.19: Proposed Land Uses of Ward No. 02

Proposed Land use	Area (Acre)	%
Agriculture	47.62	27.24
Commercial	4.50	2.57
Commercial and Institution	3.59	2.06
Education and research institute	4.56	2.61
Health facilities		0.00
Industrial and manufacturing 1 (IM-1)	0.52	0.30
Open Space/green space		0.00
Public Administrative and Defense	3.37	1.93
Public services and utilities	1.57	0.90
Residential	53.39	30.54
Road	7.34	4.20
Transportation facilities		0.00
Waterbody	48.37	27.67
Grand Total	174.83	100.00

Development Proposals for Ward No-2

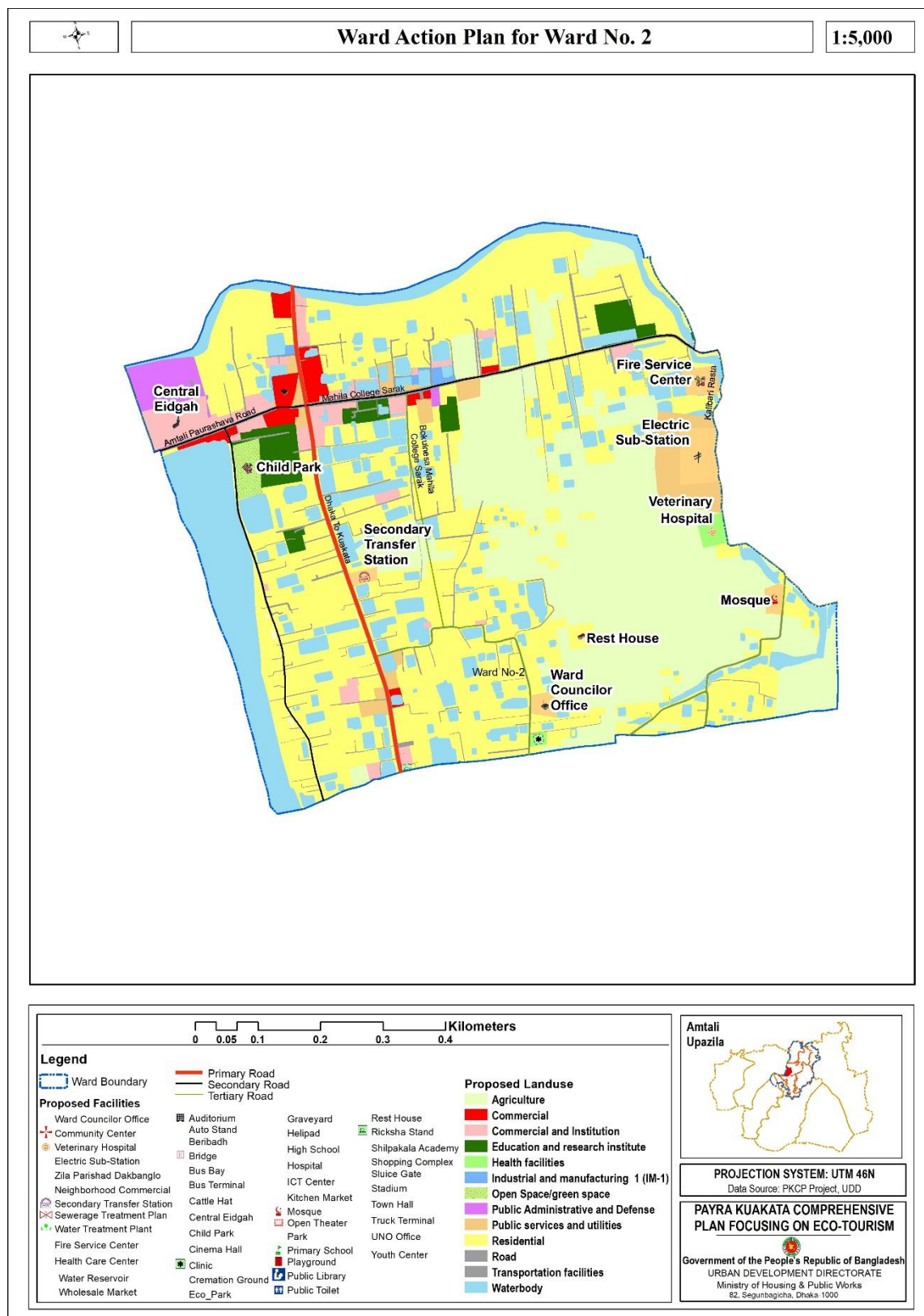
The consultant proposes some urban facilities in Ward No-2. It includes Veterinary Hospital, Electric Sub-Station, Child Park, Secondary Transfer Station, Rest House etc. The details of the proposal are given below.

Table 6.20: Development Proposals for ward 02 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
North Urban Fringe	Public services and utilities	Chowra	30	1	526, 546, 550, 568
North Urban Fringe	Road	Chowra	30	1	470, 508
North	Commercial	Chowra	30	1	599,596,602, 608,

Urban Fringe	and Institution				
North Urban Fringe	Public services and utilities	Chowra	30	1	524,76,83,94,76,92,83,124
Urban	Agriculture	Chowra	30	1	1,002,100,910,101,020
Urban	Commercial	Chowra	30	1	621,631,732,848
Urban	Commercial and Institution	Chowra	30	1	462,618,620,633,643,661,
Urban	Commercial and Institution	Chowra	30	1	715,821,851,865,868
Urban	Education and research institute	Chowra	30	1	692,732
Urban	Public Administrative and Defense	Chowra	30	1	732
Urban	Public services and utilities	Chowra	30	1	624,632,848
Urban	Residential	Chowra	30	1	1007,1008,1010,1011,400,
Urban	Residential	Chowra	30	1	446,455,641,681,708,716,
Urban	Residential	Chowra	30	1	740,741,743,744,746,752,
Urban	Residential	Chowra	30	1	755,756,764,768,790,796,
Urban	Residential	Chowra	30	1	822,836,848,884,886,887,
Urban	Road	Ghatkhali	29	2	210,211,121,178
Urban	Road	Chowra	30	1	459,878
Urban	Waterbody	Chowra	30	1	1002,1004,1005,1007,1008,1025,1028,1036,1083,1084,452,453,455,459,462,463,629,633,635,636,638,641,
Urban	Waterbody	Chowra	30	1	642,643,644,669,675,677,
Urban	Waterbody	Chowra	30	1	678,680,685,688,696,697,
Urban	Waterbody	Chowra	30	1	700,702,706,707,708,709,
Urban	Waterbody	Chowra	30	1	710,714,716,717,723,730,
Urban	Waterbody	Chowra	30	1	732,733,736,740,741,743,
Urban	Waterbody	Chowra	30	1	744,745,752,753,769,770,
Urban	Waterbody	Chowra	30	1	784,786,788,790,791,794,
Urban	Waterbody	Chowra	30	1	796,808,809,811,812,815,
Urban	Waterbody	Chowra	30	1	817,819,820,822,827,831,832,834,836,839,840,842,844,845,846,

					848,851,852,855,860,862,865,875,878,884,
Urban	Waterbody	Chowra	30	1	885,886
Urban	Commercial	Chowra	30	1	629,633,626,628,702,629,
Urban	Commercial	Chowra	30	1	633,
Urban	Commercial and Institution	Chowra	30	1	809,885,
Urban	Commercial and Institution	Chowra	30	1	808,809
Urban	Health Facilities	Chowra	30	1	740,774,740,741,
Urban	Public services and utilities	Chowra	30	1	453,1035,704,751,457,759,
Urban	Public services and utilities	Chowra	30	1	761,456,733,448,452,453,
Urban	Public services and utilities	Chowra	30	1	759,775,400,1010,1036,
Urban	Public services and utilities	Chowra	30	1	6,977,061,028
Urban	Public services and utilities	Ghatkhali	29	2	1916, 1146
Urban	Public services and utilities	Chowra	30	1	448,449,453,454,751,447,
Urban	Public services and utilities	Chowra	30	1	455,777



Map 6.3: Ward Action Plan for Ward No-2

6.3.3.3 Ward Action Plan for Ward No. 03

Demography

Ward No. 3 consists of the mouza named Chowra. It is situated on the southwestern part of the Paurashava and Ward No. 4 is on the north, Upazila area on the south and west and Ward No. 1 and 2 on the east. Present population of the Ward is 4338 (2022) and it will 6607 in the year 2031 and 9165 in 2041. Density of population is 23 persons per acre and it will be 35 in the year 2031.

Table 6.21: Population Statistics of Ward No. 03

Item	2011	2022	2031	2041
Area (acre)	183.97			
Population	2718	4338	6607	9165

Review of Existing Land Use

Out of total 183 acres of land of this ward, i.e. 53.89% is used in residential. The agricultural use with 90.35 acres, occupies 36.72% of total land, water bodies 19.64%, commercial use 1.55%, and Transportation and Communication 0.06%. Only 0.22% of land is used as service activity.

Table 6.22: Existing Land use category in Ward-03

Existing Land Use	Area (Acre)	%
Agriculture	30.35	16.50
Commercial	2.85	1.55
Community Service	0.89	0.48
Education and Research	1.22	0.67
Manufacturing and Processing	0.66	0.36
Mixed Use	3.00	1.63
Residential	99.14	53.89
Road	0.02	0.01
Service Activity	0.40	0.22
Transportation and Communication	0.12	0.06
Waterbody	45.32	24.64
Total	183.97	71.35

Ward Action Plan Proposals

Proposed Land Use Zoning

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 3. Map shows proposed land use of Ward 03.

Table 6.23: Proposed Land Uses of Ward No. 03

Proposed Land use	3.00	%
Agriculture	30.44	16.55
Commercial	2.85	1.55
Commercial and Institution	3.60	1.96
Education and research institute	1.22	0.66
Health facilities		0.00
Industrial and manufacturing 1 (IM-1)	0.63	0.34
Open Space/green space		0.00
Public Administrative and Defense		0.00
Public services and utilities	0.40	0.22
Residential	89.91	48.87
Road	9.49	5.16
Transportation facilities	0.12	0.06
Waterbody	45.29	24.62
Grand Total	183.97	100.00

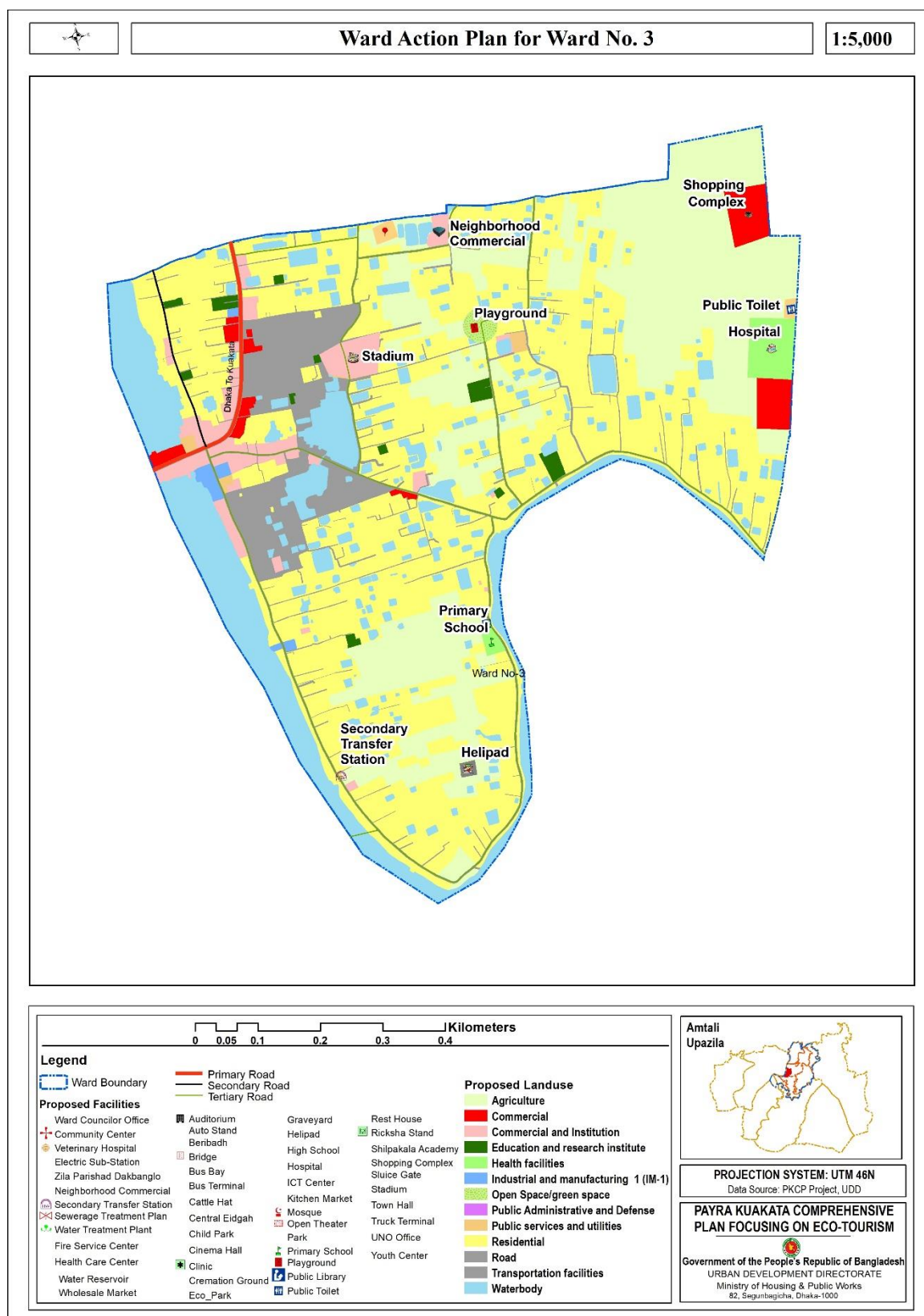
Development Proposals for Ward No-3

The consultant proposes some urban facilities in Ward No-3. It includes Shopping Complex, Cyclone Shelter, Park, Hospital, Helipad etc. The details of the proposal are given in the table below.

Table 6.24: Development Proposals for ward 03 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
Urban	Agriculture	Chowra	30	1	962,964,967,992
Urban	Commercial	Chowra	30	1	898,900,901,908,923,928,
Urban	Commercial and Institution	Chowra	30	2	1,102,118,911,941,200
Urban	Commercial and Institution	Chowra	30	1	893,898,907,911,916,919,
Urban	Commercial and Institution	Chowra	30	1	923,927,929,932,933,936,
Urban	Commercial and Institution	Chowra	30	1	952,962,963,967
Urban	Education and research institute	Chowra	30	2	110,412,051,206
Urban	Education and research institute	Chowra	30	1	897,898,907,920,966,000
Urban	Industrial and manufacturing 1 (IM-1)	Chowra	30	1	898,933
Urban	Public services and utilities	Chowra	30	1	919,936
Urban	Residential	Chowra	30	1	1001,1036,1076,869,891,
Urban	Residential	Chowra	30	1	898,899,917,923,929,936,
Urban	Residential	Chowra	30	1	942,954,962,963,964,967,
Urban	Residential	Chowra	30	1	968,970,975,995,997
Urban	Residential	Chowra	30	2	1118,1130,1154,1178,
Urban	Residential	Chowra	30	2	1182,1219,
Urban	Road	Chowra	30	1	944,962
Urban	Transportation facilities	Chowra	30	1	937,940,964
Urban	Waterbody	Chowra	30	1	100,010,011,005,100
Urban	Waterbody	Chowra	30	2	1102,1103,1105,1109,1110,
Urban	Waterbody	Chowra	30	2	1112,1114,1123,1126,1128,1133,1134,1139,1140,1146,1153,1170,1177,1178,
Urban	Waterbody	Chowra	30	2	1183,1188,1189,1194,1195,1

					197,1205,1207,1208,1214,1219,1220,1222,1223,
Urban	Waterbody	Chowra	30	2	12,241,225,122,712,200,000
Urban	Waterbody	Chowra	30	1	865,866,888,889,891,893,897,898,899,907,908,909,916,917,918,919,922,932,944,945,947,948,949,950,951,
Urban	Waterbody	Chowra	30	1	952,954,956,957,958,961,
Urban	Waterbody	Chowra	30	1	962,963,964,965,966,967,968,969,970,971,975,976,
Urban	Waterbody	Chowra	30	1	977,980,982,984,986,987,988,989,990,991,992,995,996,997,998,999,
Urban	Commercial	Chowra	30	1	10,761,067
Urban	Commercial	Chowra	30	1	1022
Urban	Commercial and Institution	Chowra	30	1	891,909,917,
Urban	Commercial and Institution	Chowra	30	1	908,944,888,891,917
Urban	Health Facilities	Chowra	30	1	1076,1183,1183,
Urban	Open Space/green space	Chowra	30	1	917,1080,917,909,919,965,
Urban	Open Space/green space	Chowra	30	1	1080
Urban	Public services and utilities	Chowra	30	1	891,888,891,



Map 6.4: Ward Action Plan for Ward No-3

6.3.3.4 Ward Action Plan for Ward No. 04

Demography

Ward No. 4 consists of the mouza named Amtali and Chowra. It is situated on the middle part of the Paurashava and Ward No. 5 and 6 is on the north, Ward No. 3 on the south, Ward No. 8 on the east and Ward No. 5 on the west. Present population of the Ward is 3354 (2022) and it will be 4129 in the year 2031 and 4854 in 2041. Density of population is 39 persons per acre and it will be 48 in the year 2031.

Table 6.25: Population Statistics of Ward No. 04

Item	2011	2022	2031	2041
Area (acre)	84.27			
Population	2662	3354	4129	4854

Review of Existing Land Use

Out of total 84.27 acres of land of this ward, more than 41.27% is used in residential. The agricultural use with 22.12 acres, occupies 26.25% of total land, water bodies 15.65%, commercial use 1.26%, mixed use 8.20% and Transportation and Communication 0.55%. Only 1.17% of land is used as education facilities.

Table 6.26: Existing Land use category in Ward-04

Existing Land Use	Area (Acre)	%
Administrative/ Public Service	0.20	0.24
Agriculture	22.12	26.25
Commercial	1.07	1.26
Community Service	1.66	1.97
Education and Research	0.99	1.17
Manufacturing and Processing	0.75	0.89
Mixed Use	6.91	8.20
Open Space and Recreational	0.74	0.87
Residential	34.78	41.27
Road	0.02	0.02
Service Activity	1.39	1.65
Transportation and Communication	0.46	0.55
Waterbody	13.19	15.65
Total	84.27	100.00

Ward Action Plan Proposals

Proposed Land Use Zoning

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 4. Map shows proposed land use of Ward 04.

Table 6.27: Proposed Land Uses of Ward No. 04

Proposed Land use	4.00	%
Agriculture	17.14	20.34
Commercial	6.05	7.17
Commercial and Institution	8.52	10.10
Education and research institute	0.99	1.17
Health facilities		0.00
Industrial and manufacturing 1 (IM-1)	0.75	0.89
Open Space/green space	0.74	0.87
Public Administrative and Defense	0.20	0.24
Public services and utilities	1.39	1.65
Residential	34.83	41.33
Road	0.02	0.02
Transportation facilities	0.46	0.55
Waterbody	13.19	15.65
Grand Total	84.27	100.00

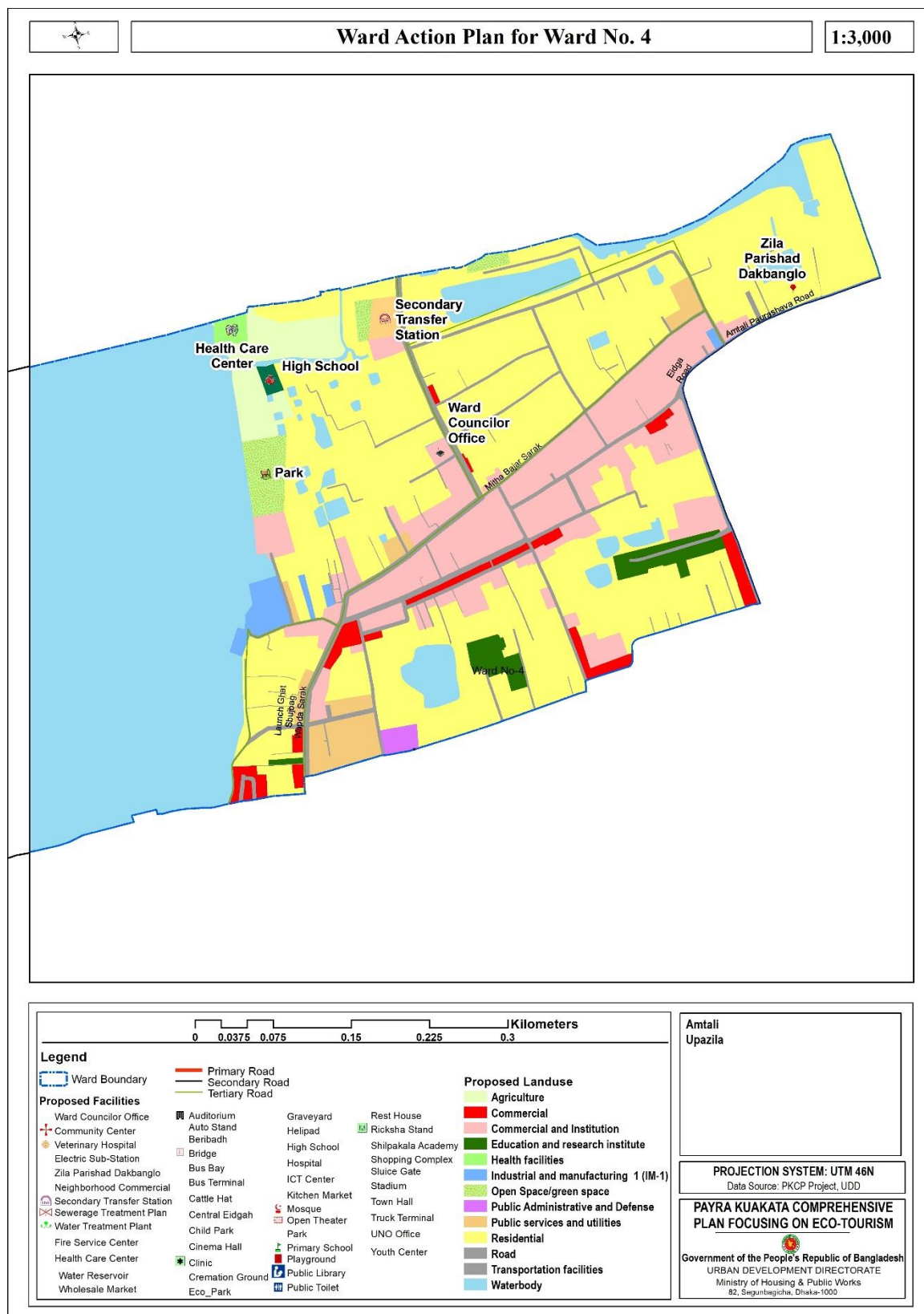
Development Proposals for Ward No-4

The consultant proposes some urban facilities in Ward No-4. It includes Central Eidgah, Secondary Transfer Station, Zila Parishad Dakbanglo, Health Care Center, High School etc. The details of the proposal are given in the table below.

Table 6.28: Development Proposals for ward 04 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
North Urban Fringe	Open Space/green space	Chowra	30	1	109
North Urban Fringe	Health Facilities	Chowra	30	1	43, 44
North Urban Fringe	Open Space/green space	Chowra	30	1	51, 56
Upazila Town Center	Commercial	Amtali	31	1	114,134,146,162,185
Upazila Town Center	Commercial and Institution	Amtali	31	1	114,122,135,154,164,177,
Upazila Town Center	Commercial and Institution	Amtali	31	1	182,184,185,336,338,349,
Upazila Town Center	Commercial and Institution	Amtali	31	1	357,358,359,361,365,368,
Upazila Town Center	Commercial and Institution	Amtali	31	1	372,379,38,39,410,429,909,923,924
Upazila Town Center	Education and research institute	Amtali	31	1	228,229,336,356,
Upazila Town Center	Industrial and manufacturing 1 (IM-1)	Amtali	31	1	13,16,38,429,
Upazila Town Center	Public Administrative and Defense	Amtali	31	1	351
Upazila Town Center	Public services and utilities	Amtali	31	1	188,19,349,421,914,917,
Upazila Town Center	Residential	Amtali	31	1	135,164,228,338,345,349,
Upazila Town Center	Residential	Amtali	31	1	378,414,416,79
Upazila Town Center	Road	Amtali	31	1	114,392
Upazila Town Center	Transportation facilities	Chowra	30	1	1,114,184,185,230,336,
Upazila Town Center	Transportation facilities	Chowra	30	1	349,38,39,405,914,917,

Upazila Town Center	Transportation facilities	Chowra	30	1	923,924,927
Upazila Town Center	Waterbody	Chowra	30	1	1,114,355,373,374,390,
Upazila Town Center	Waterbody	Chowra	30	1	416,54,86,918946,
Upazila Town Center	Commercial and Institution	Amtali	31	1	921
Upazila Town Center	Public services and utilities	Chowra	30	1	79
Upazila Town Center	Residential	Chowra	30	1	86,2817,



Map 6.5: Ward Action Plan for Ward No-4

6.3.3.5 Ward Action Plan for Ward No. 05

Demography

Ward No. 5 consists of the mouza named Amtali. It is situated on the northwestern part of the Paurashava and Ward No. 6 is on the north, Upazila area on the south and west and Ward No. 4 and 6 on the east. Present population of the Ward is 1984 (2022) and it will 2367 in the year 2031 and 2714 in 2041. Density of population is 6 persons per acre and it will be 7 in the year 2031.

Table 6.29: Population Statistics of Ward No. 05

Item	2011	2022	2031	2041
Area (acre)	99.83			
Population	2441	3378	4525	5681

Review of Existing Land Use

Out of total 99.83 acres of land of this ward, i.e. 29.83% is used in residential. The water bodies 51.85%, commercial use 1.01%, and Transportation and Communication 4.30%. Only 2.79% of land is used as education facilities.

Table 6.30: Existing Land use category in Ward-05

Existing Land Use	Area (Acre)	%
Administrative/ Public Service	1.18	1.18
Agriculture	6.02	6.03
Commercial	1.01	1.01
Community Service	0.29	0.29
Education and Research	2.79	2.79
Manufacturing and Processing	1.21	1.21
Mixed Use	0.96	0.96
Open Space and Recreational	0.10	0.10
Residential	29.78	29.83
Road	0.06	0.06
Service Activity	0.39	0.40
Transportation and Communication	4.29	4.30
Waterbody	51.76	51.85

Total	99.83	100.00
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Ward Action Plan Proposals

Proposed Land Use Zoning

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 5. Map shows proposed land use of Ward 05.

Table 6.31: Proposed Land Uses of Ward No. 05

Ward No-5	Ward No-5	
Proposed Land use	5.00	%
Agriculture	6.02	6.03
Commercial	2.93	2.94
Commercial and Institution	1.20	1.20
Education and research institute	2.44	2.44
Health facilities		0.00
Industrial and manufacturing 1 (IM-1)	0.52	0.52
Open Space/green space	0.10	0.10
Public Administrative and Defense	1.18	1.18
Public services and utilities	0.08	0.08
Residential	34.26	34.32
Road	0.06	0.06
Transportation facilities	5.68	5.69
Waterbody	45.37	45.45
Grand Total	99.83	100.00

Development Proposals for Ward No-5

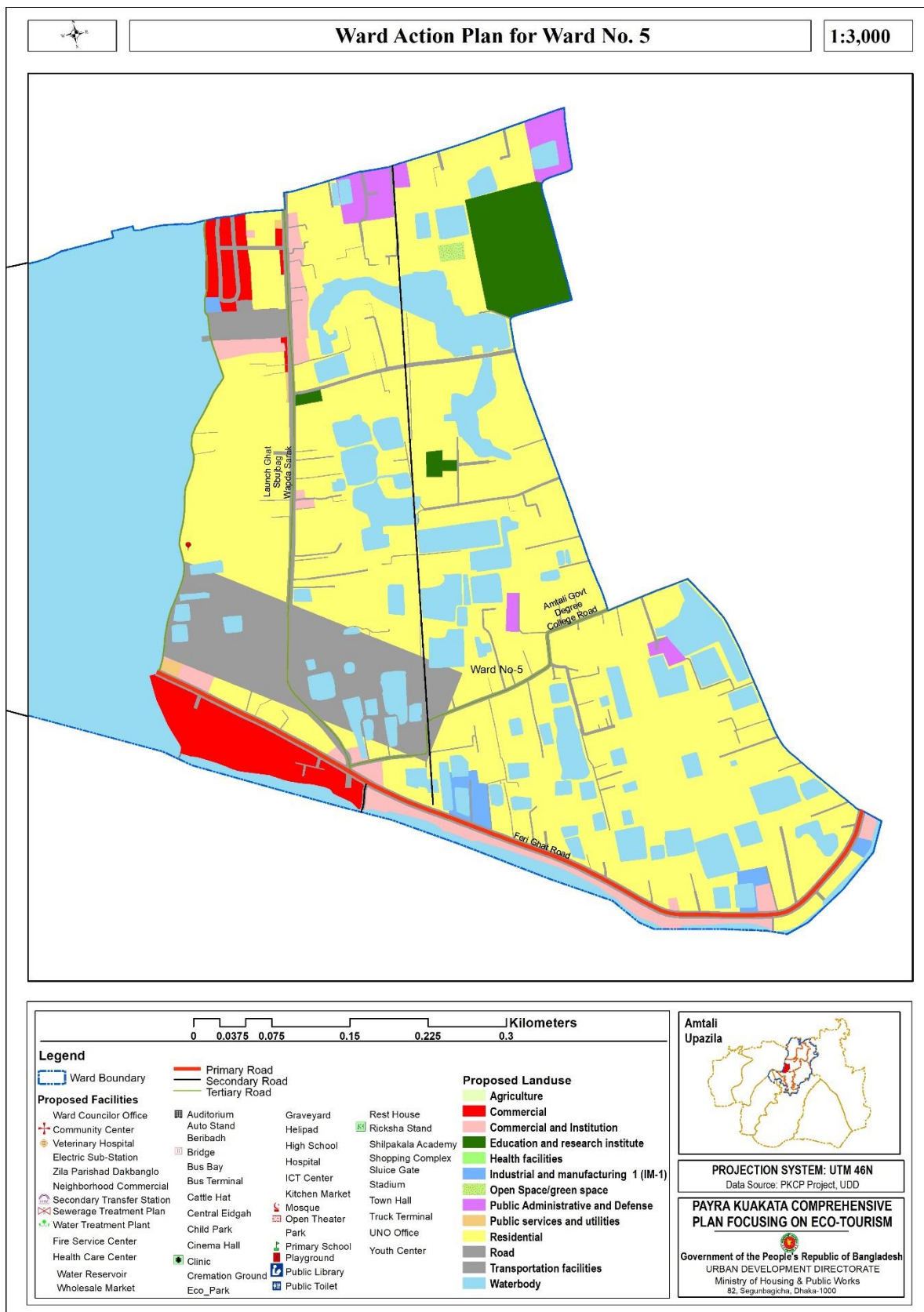
The consultant proposes some urban facilities in Ward No-5. It includes Kitchen Market, Waste Transfer Station, and Administrative Office etc. The details of the proposal are given in the table below.

Table 6.32: Development Proposals for ward 05 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
South Urban Fringe	Commercial	Amtali	31	1	572,573,620,865
South Urban Fringe	Industrial and manufacturing 1 (IM-1)	Amtali	31	1	545
South Urban	Transportation facilities	Amtali	31	1	571,572

Fringe					
Upazila Town Center	Commercial	Amtali	31	1	231,232,234,236,273
Upazila Town Center	Commercial and Institution	Amtali	31	1	230,231,232,247,273
Upazila Town Center	Education and research institute	Amtali	31	1	273,282,294,
Upazila Town Center	Industrial and manufacturing 1 (IM-1)	Amtali	31	1	568,781
Upazila Town Center	Open Space/green space	Amtali	31	1	345
Upazila Town Center	Public Administrative and Defense	Amtali	31	1	288, 344,350,351,555,
Upazila Town Center	Public services and utilities	Amtali	31	1	231,273
Upazila Town Center	Residential	Amtali	31	1	231,233,274,275,276,282,
Upazila Town Center	Residential	Amtali	31	1	287,291,305,307,345,555,
Upazila Town Center	Residential	Amtali	31	1	570,573,780,783
Upazila Town Center	Road	Amtali	31	1	274,276
Upazila Town Center	Transportation facilities	Amtali	31	1	230,231,232,233,247,273,
Upazila Town Center	Transportation facilities	Amtali	31	1	274,287,288,568,570,571,
Upazila Town Center	Transportation facilities	Amtali	31	1	573
Upazila Town Center	Waterbody	Amtali	31	1	269,274,275,276,281,284,

Upazila Town Center	Waterbody	Amtali	31	1	286,287,288,292,305,342,345, 346,349,350,547,551,
Upazila Town Center	Waterbody	Amtali	31	1	552,554,555,557,558,559,
Upazila Town Center	Waterbody	Amtali	31	1	560,564,568,570,571,572,
Upazila Town Center	Waterbody	Amtali	31	1	573,574,778,781,884,
Upazila Town Center	Transportation Facilities	Amtali	31	1	782



Map 6.6: Ward Action Plan for Ward No-5

6.3.3.6 Ward Action Plan for Ward No. 06

Demography

Ward No. 6 consists of the mouzas named Amtali. It is situated on the northern part of the Paurashava and Upazila area is on the north and west, Ward No. 5 on the south and Ward No. 8 and 9 on the east. Present population of the Ward is 1804 (2022) and it will 1721 in the year 2031 and 1659 in 2041. Density of population is 19 persons per acre and it will be 20 in the year 2031.

Table 6.33: Population Statistics of Ward No. 06

Item	2011	2022	2031	2041
Area (acre)	90.46			
Population	1901	1804	1721	1659

Review of Existing Land Use

Out of total 90.46 acres of land of this ward i.e. 9.23% is used in residential. The water bodies 29.27%, commercial use 5.64%, and Transportation and Communication 0.04%. Only 8.05% of land is used as education facilities.

Table 6.34: Existing Land use category in Ward-06

Existing Land Use	Area (Acre)	%
Administrative/ Public Service	15.61	17.26
Agriculture	11.00	12.16
Commercial	3.14	3.47
Community Service	0.33	0.37
Education and Research	7.28	8.05
Health Service	0.02	0.02
Manufacturing and Processing	0.09	0.10
Mixed Use	2.48	2.74
Residential	8.35	9.23
Road	0.04	0.04
Service Activity	1.18	1.30
Transportation and Communication	0.04	0.04
Waterbody	40.90	45.21
Total	90.46	100.00

Ward Action Plan Proposals

Proposed Land Use Zoning

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 6. Map shows proposed land use of Ward 06.

Table 6.35: Proposed Land Uses of Ward No. 06

Proposed Land use	6.00	%
Agriculture	10.83	11.97
Commercial	3.59	3.97
Commercial and Institution	3.21	3.55
Education and research institute	7.25	8.02
Health facilities	0.02	0.02
Industrial and manufacturing 1 (IM-1)	0.06	0.07
Open Space/green space		0.00
Public Administrative and Defense	16.51	18.25
Public services and utilities	2.79	3.09
Residential	6.80	7.51
Road	0.04	0.04
Transportation facilities	0.04	0.04
Waterbody	39.33	43.47
Grand Total	90.46	100.00

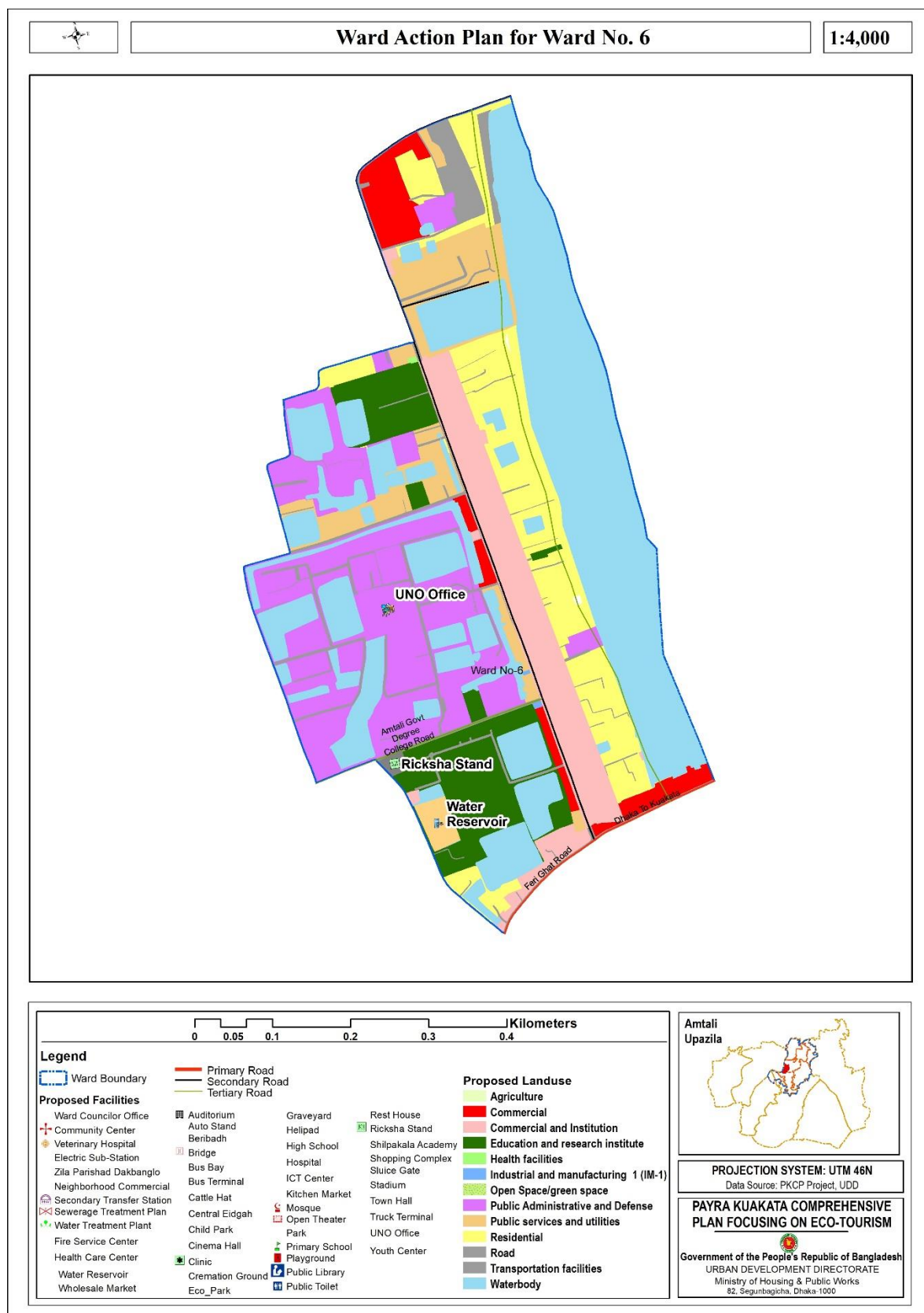
Development Proposals for Ward No-6

The consultant proposes some urban facilities in Ward No-6. It includes Water Reservoir and UNO Office. The details of the proposal are given in the table below.

Table 6.36: Development Proposals for ward 06 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
Upazila Town Center	Commercial	Amtali	31	1	325,463,466,467,471,525,
Upazila Town Center	Commercial	Amtali	31	1	533,534,861
Upazila Town Center	Commercial and Institution	Amtali	31	1	455,456,463,478,486,488,
Upazila Town Center	Commercial and Institution	Amtali	31	1	493,525,532,539,550
Upazila Town Center	Education and research institute	Amtali	31	1	309,329,341,532
Upazila Town Center	Industrial and manufacturing 1 (IM-1)	Amtali	31	1	312,315,486,532

Upazila Town Center	Public Administrative and Defense	Amtali	31	1	294,295,309,314,331,333,
Upazila Town Center	Public services and utilities	Amtali	31	1	294,314,315,329,333,434,
Upazila Town Center	Public services and utilities	Amtali	31	1	532,537
Upazila Town Center	Residential	Amtali	31	1	339,341,437,439,482,486,
Upazila Town Center	Residential	Amtali	31	1	488,
Upazila Town Center	Residential	Amtali	31	1	532,551,864,
Upazila Town Center	Road	Amtali	31	1	316,331,
Upazila Town Center	Transportation facilities	Amtali	31	1	878
Upazila Town Center	Waterbody	Amtali	31	1	294,296,298,304,314,316,320, 321,322,326,327,329,
Upazila Town Center	Waterbody	Amtali	31	1	330,342,441,459,463,487,
Upazila Town Center	Waterbody	Amtali	31	1	533,534,538,551,863,000
Upazila Town Center	Public Administrative and Defense	Amtali	31	1	302,320,306,
Upazila Town Center	Public services and utilities	Amtali	31	1	533,553,535
Upazila Town Center	Public services and utilities	Amtali	31	1	535
Upazila Town Center	Transportation Facilities	Amtali	31	1	533,
Upazila Town Center	Transportation Facilities	Amtali	31	1	306,



Map 6.7: Ward Action Plan for Ward No-6

6.3.3.7 Ward Action Plan for Ward No. 07

Demography

Ward No. 7 consists of the mouza named Amtali. It is situated on the northeastern part of the Paurashava and Ward No. 8 is on the north, Ward No. 1 on the south, and Ward No. 4 on the west. Present population of the Ward is 1880 (2022) and it will 1951 in the year 2031 and 2008 in 2041. Density of population is 40 persons per acre and it will be 41 in the year 2031.

Table 6.37: Population Statistics of Ward No. 07

Item	2011	2022	2031	2041
Area (acre)	201.22			
Population	2018	2635	3350	4038

Review of Existing Land Use

Out of total 201.22 acres of land of this ward, i.e. 27.21% is used in residential. The agricultural use with 53.41 acres, occupies 48.89% of total land, water bodies 7.88%, commercial use 1.02%, mixed use 3.43% and Transportation and Communication 0.51%. Only 0.57% of land is used as education facilities.

Table 6.38: Existing Land use category in Ward-07

Existing Land Use	Area (Acre)	%
Administrative/ Public Service	0.92	0.46
Agriculture	107.48	53.41
Commercial	1.82	0.91
Community Service	1.28	0.64
Education and Research	1.15	0.57
Health Service	4.74	2.35
Manufacturing and Processing	2.18	1.08
Mixed Use	6.13	3.05
Residential	54.75	27.21
Road	0.08	0.04
Service Activity	3.79	1.88
Transportation and Communication	1.03	0.51
Waterbody	15.86	7.88
Total	201.22	100.00

Ward Action Plan Proposals

Proposed Land Use Zoning

Table 6.39: Proposed Land Uses of Ward No. 07

Proposed Land use	7.00	%
Agriculture	106.76	53.05
Commercial	2.82	1.40
Commercial and Institution	7.40	3.68
Education and research institute	1.15	0.57
Health facilities	4.74	2.35
Industrial and manufacturing 1 (IM-1)	2.18	1.08
Open Space/green space		0.00
Public Administrative and Defense	0.92	0.46
Public services and utilities	3.79	1.88
Residential	54.01	26.84
Road	2.83	1.41
Transportation facilities	1.03	0.51
Waterbody	13.58	6.75
Grand Total	201.22	100.00

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 7. Map shows proposed land use of Ward 07.

Development Proposals for Ward No-7

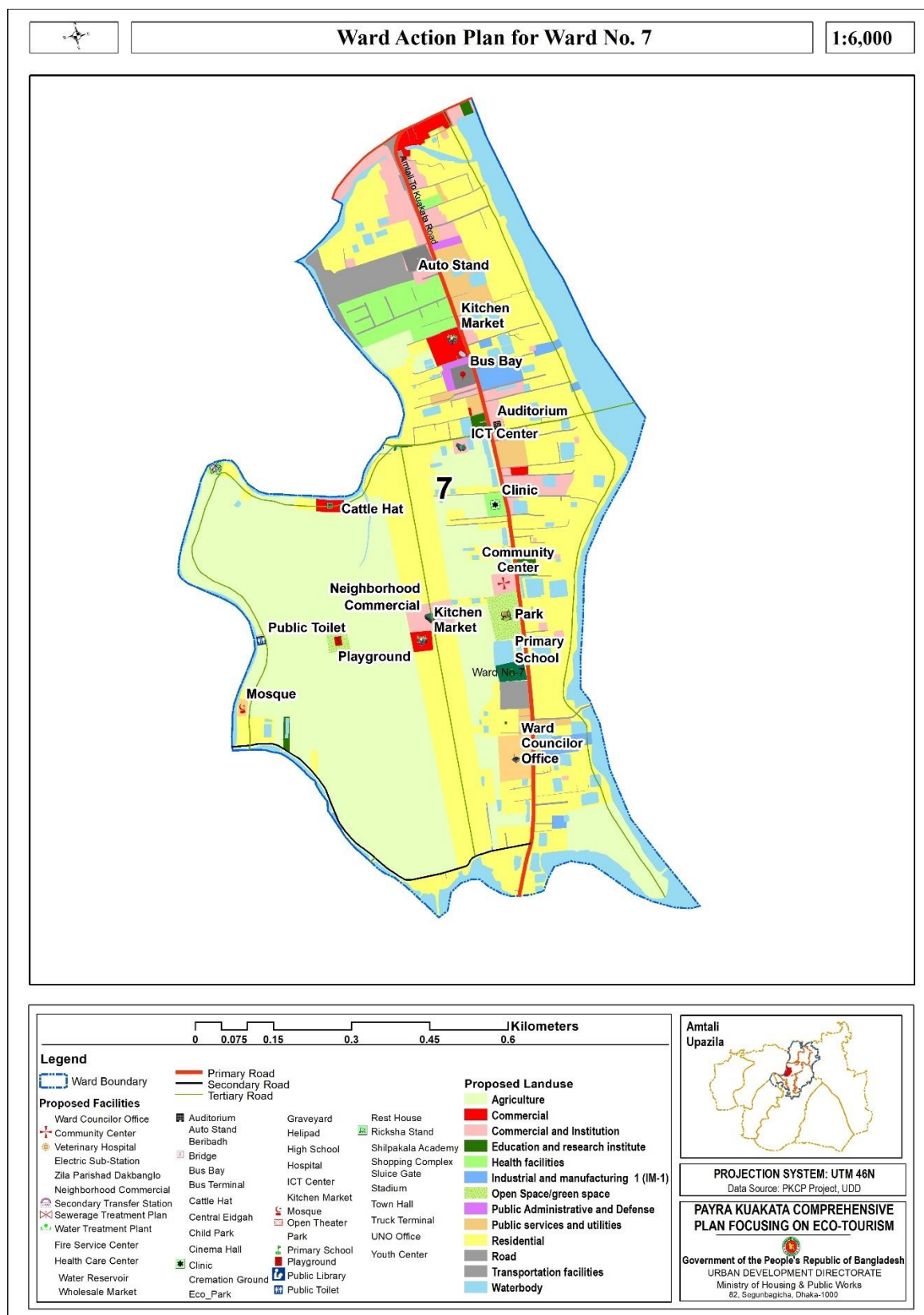
The consultant proposes some urban facilities in Ward No-7. It includes Neighborhood Commercial, ICT Center, Bus Bay, Mosque and Administrative Office etc. The details of the proposal are given in the table below.

Table 6.40: Development Proposals for ward 07 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
South Urban Fringe	Agriculture	Amtali	31	2	2033, 2172
South Urban Fringe	Agriculture	Chhota Nachna Para	82	0	278
South Urban Fringe	Agriculture	Amtali	31	1	807, 808,758,767,848
South Urban Fringe	Commercial	Amtali	31	2	21,692,236
South Urban Fringe	Commercial	Amtali	31	1	515,532,621,623,624
South Urban Fringe	Commercial and Institution	Amtali	31	2	2222,2236,2240,2248,2249,2258,2264,2276,2288,2313,2348,1140,1242,1247,1253,1260,1276,1298,1299,
South Urban Fringe	Commercial and Institution	Amtali	31	2	1358,1384,1404,1406,1408,1435,1448,1476,1494,1503,1621,1627,1629,1631,1634,1698,1701,1704,
South Urban Fringe	Commercial and Institution	Amtali	31	2	1904,1906,1942,1972,1980,1983,2768,
South Urban Fringe	Commercial and Institution	Amtali	31	1	497,518,521,532,542
South Urban Fringe	Education and research institute	Amtali	31	2	200,020,872,170,228
South Urban Fringe	Health facilities	Amtali	31	1	519
South Urban Fringe	Industrial and manufacturing 1 (IM-1)	Chhota Nachna Para	82	0	1
South Urban Fringe	Industrial and manufacturing 1 (IM-1)	Amtali	31	2	2362, 1140, 1141, 2032
South Urban Fringe	Industrial and manufacturing 1 (IM-1)	Amtali	31	1	810,628,684,739

South Urban Fringe	Public Administrative and Defense	Amtali	31	1	517, 808
South Urban Fringe	Public services and utilities	Amtali	31	2	208,720,882,168,216
South Urban Fringe	Public services and utilities	Amtali	31	1	518,519,808,818
South Urban Fringe	Residential	Chhota Nachna Para	82	0	168
South Urban Fringe	Residential	Amtali	31	2	2001
South Urban Fringe	Residential	Amtali	31	1	494,502,513,808,835
South Urban Fringe	Road	Amtali	31	2	2362
South Urban Fringe	Road	Amtali	31	1	51,799,802,808,753
South Urban Fringe	Transportation facilities	Amtali	31	1	515
South Urban Fringe	Waterbody	Amtali	31	2	1993,1994,2000,2033,2037,2043,2074,2078,2079,2081,2083,2092,2094,2151,
South Urban Fringe	Waterbody	Amtali	31	2	2168,2170,2173,2174,2178,2181,2182,2194,2198,2199,2211,2222,2227,2240,
South Urban Fringe	Waterbody	Amtali	31	2	2247,2249,2261,2262,2264,2265,2282,2288,2302,2304,2314,2333,2345,2346,2348,2352,2353,2362,2363,2446,2773,2781,2794,
South Urban Fringe	Waterbody	Chhota Nachna Para	82	0	260,278
South Urban Fringe	Waterbody	Amtali	31	1	497,542,787,793,808
South Urban Fringe	Commercial	Amtali	31	2	205,521,442,055

South Urban Fringe	Commercial	Amtali	31	1	808,806,632,
South Urban Fringe	Commercial and Institution	Amtali	31	2	2246,2241,2170,2086,2199,2180,2083,2086, 2170,
South Urban Fringe	Commercial and Institution	Amtali	31	2	22,112,082,208,420,800
South Urban Fringe	Education and research institute	Amtali	31	2	208,820,892,098
South Urban Fringe	Health Facilities	Amtali	31	2	21,892,153,218,121,500
South Urban Fringe	Open Space/green space	Amtali	31	2	21,032,211,209,822
South Urban Fringe	Public services and utilities	Amtali	31	2	1982,1995,
South Urban Fringe	Transportation Facilities	Amtali	31	1	800,808,804,800
Upazila Town Center	Transportation facilities	Amtali	31	1	515, 540



Map 6.8: Ward Action Plan for Ward No-7

6.3.3.8 Ward Action Plan for Ward No. 08

Demography

Ward No. 8 consists of the mouza named Amtali. It is situated on the northeastern part of the Paurashava and Ward No. 9 is on the north, Ward No. 7 on the south, and Ward No. 6 on the west. Present population of the Ward is 2545 (2022) and it will 3763 in the year 2031 and 5101 in 2041. Density of population is 11 persons per acre and it will be 17 in the year 2031.

Table 6.41: Population Statistics of Ward No. 08

Item	2011	2022	2031	2041
Area (acre)	226.83			
Population	1648	2545	3763	5101

Review of Existing Land Use

Out of total 226.83 acres of land of this ward i.e. 23.29% is used in residential. The agricultural use with 94.72 acres, occupies 41.76% of total land, water bodies 22.46%, commercial use 0.50%, mixed use 2.67% and Transportation and Communication 1.18%. Only 0.64% of land is used as education facilities.

Table 6.42: Existing Land use category in Ward-08

Existing Land Use	Area (Acre)	%
Agriculture	94.72	41.76
Commercial	12.05	5.31
Community Service	1.14	0.50
Education and Research	1.45	0.64
Manufacturing and Processing	4.69	2.07
Mixed Use	6.07	2.67
Open Space and Recreational	0.11	0.05
Residential	52.84	23.29
Road	0.01	0.01
Service Activity	0.11	0.05

Transportation and Communication	2.69	1.18
Waterbody	50.95	22.46
Total	226.83	100.00

Proposed Land Use Zoning

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 8. Map shows proposed land use of Ward 07.

Table 6.43: Proposed Land Uses of Ward No. 08

Proposed Land use	8.00	%
Agriculture	92.82	40.92
Commercial	8.69	3.83
Commercial and Institution	4.25	1.87
Education and research institute	15.42	6.80
Health facilities		0.00
Industrial and manufacturing 1 (IM-1)	3.11	1.37
Open Space/green space	0.11	0.05
Public Administrative and Defense		0.00
Public services and utilities	5.00	2.20
Residential	47.17	20.80
Road	0.01	0.01
Transportation facilities	0.69	0.30
Waterbody	49.56	21.85
Grand Total	226.83	100.00

Development Proposals for Ward No-8

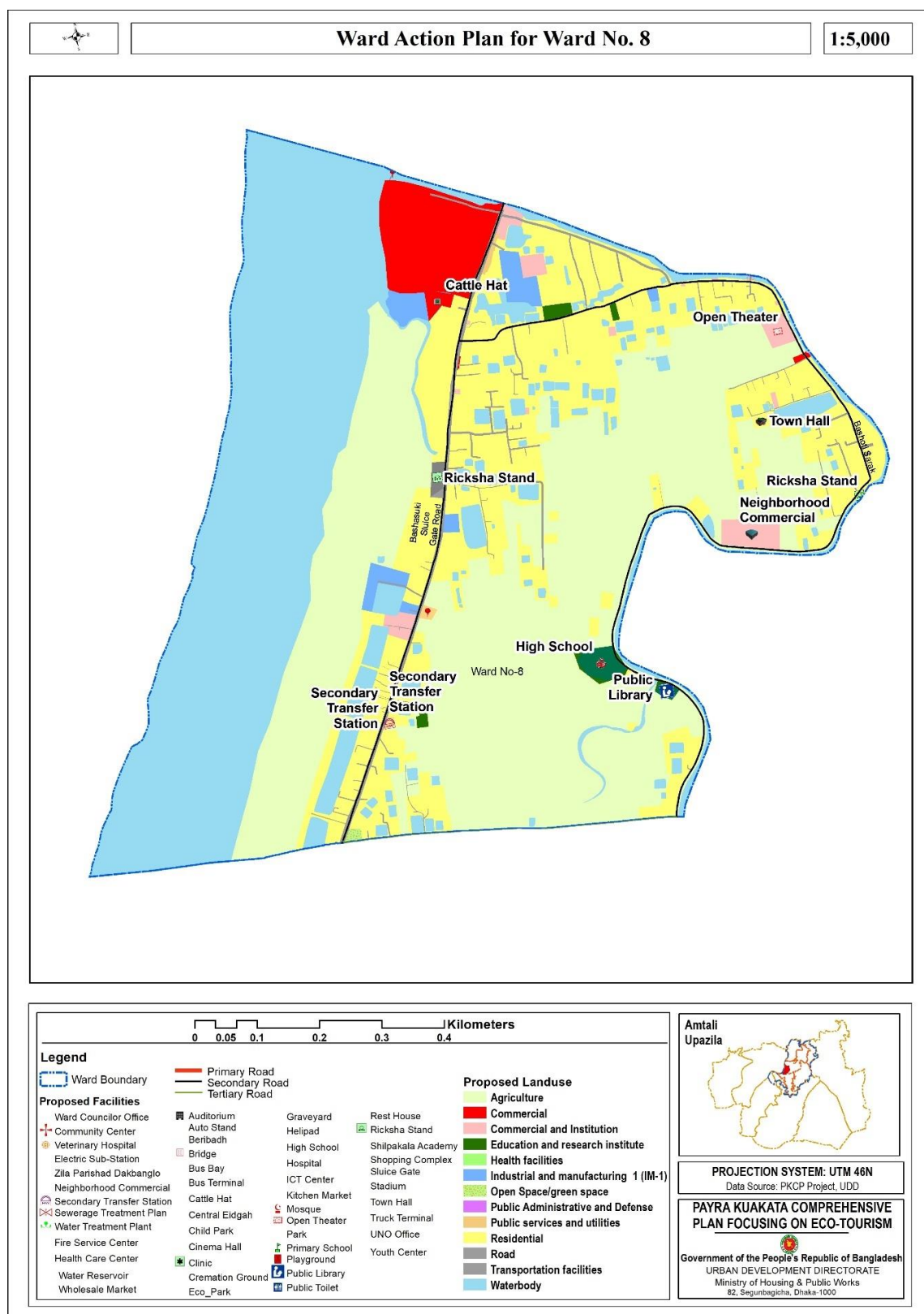
The consultant proposes some urban facilities in Ward No-8. It includes Town Hall, Open Theater, Public Library, Rickshaw Stand, Cyclone Shelter, Secondary Transfer Station, Sluice Gate etc. The details of the proposal are given in the table below.

Table 6.44: Development Proposals for ward 08 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
South Urban Fringe	Agriculture	Amtali	31	2	1204,
South Urban Fringe	Agriculture	Amtali	31	2	1119,1216,1221,1313,1341,1347,1450, 1746,1748,1919,1920,1933,1952,1961,
South Urban Fringe	Agriculture	Amtali	31	2	19,621,963,197,919,800
South Urban Fringe	Education and research institute	Amtali	31	1	712,732

South Urban Fringe	Open Space/green space	Amtali	31	2	1132
South Urban Fringe	Public services and utilities	Amtali	31	1	867
South Urban Fringe	Residential	Amtali	31	2	1,520,492,053,207
South Urban Fringe	Residential	Amtali	31	1	560,563,634,684,695,710,
South Urban Fringe	Residential				715,717,722,729,750
South Urban Fringe	Transportation facilities	Amtali	31	2	1125
South Urban Fringe	Transportation facilities	Amtali	31	2	1,132,113,611,371,140
South Urban Fringe	Transportation facilities	Amtali	31	1	572,625,631,632,633,635,
South Urban Fringe	Transportation facilities	Amtali	31	1	686,687,689,699,867
South Urban Fringe	Waterbody	Amtali	31	2	1122, 1132,1136,1137,1138,1139,1140,1144, 1145,1193,1210,1211,1212,2156,2160, 2161,2163,2765,
South Urban Fringe	Waterbody	Amtali	31	1	566,567,627,633,634,684,
South Urban Fringe	Waterbody	Amtali	31	1	692,694,695,696,699,700,
South Urban Fringe	Waterbody	Amtali	31	1	704,705,706,710,711,714,
South Urban Fringe	Waterbody	Amtali	31	1	715,716,717,722,727,732,
South Urban Fringe	Waterbody	Amtali	31	1	734,735,738,739,742,745,
South Urban Fringe	Waterbody	Amtali	31	1	748,758,760,763,764,765,
South Urban Fringe	Waterbody	Amtali	31	1	767,
South Urban Fringe	Commercial	Amtali	31	1	687
South Urban Fringe	Commercial and Institution	Amtali	31	1	702
South Urban Fringe	Education and research institute	Amtali	31	1	847
South Urban Fringe	Education and research institute	Amtali	31	2	1204
South Urban Fringe	Education and research institute	Amtali	31	2	120,412,101,204
South Urban Fringe	Public services and utilities	Amtali	31	2	113,511,416,841,137

South Urban Fringe	Residential	Amtali	31	1	764,769
South Urban Fringe	Transportation Facilities	Amtali	31	2	2,164,111,321,641,110
South Urban Fringe	Transportation Facilities	Amtali	31	1	683,754,758,683
Upazila Town Center	Transportation Facilities	Amtali	31	1	782



Map 6.9: Ward Action Plan for Ward No-8

Ward Action Plan Proposals

Demography

Ward No. 9 consists of the mouza named Amtali. It is situated on the northeastern part of the Paurashava and Ward No. 9 is on the north, Ward No. 7 on the south, and Ward No. 6 on the west. Present population of the Ward is 1293 (2022) and it will 1481 in the year 2031 and 1646 in 2041. Density of population is 4 persons per acre and it will be 5 in the year 2031.

Table 6.45: Population Statistics of Ward No. 09

Item	2011	2022	2031	2041
Area (acre)	332.73			
Population	1112	1293	1481	1646

Review of Existing Land Use

Out of total 226.83 acres of land of this ward i.e. 23.29% is used in residential. The agricultural use with 94.72 acres, occupies 41.76% of total land, water bodies 22.46%, commercial use 0.50%, mixed use 2.67% and Transportation and Communication 1.18%. Only 0.64% of land is used as education facilities.

Table 6.46: Existing Land use category in Ward-09

Existing Land Use	Area (Acre)	%
Agriculture	98.28	29.54
Commercial	2.00	0.60
Community Service	2.73	0.82
Education and Research	1.30	0.39
Manufacturing and Processing	0.26	0.08
Mixed Use	0.45	0.13
Residential	108.14	32.50
Road	11.11	3.34
Transportation and Communication	1.47	0.44
Waterbody	106.99	32.15
Total	332.73	100.00

Proposed Land Use Zoning

The category wise proposals are presented here. Table shows the amount of land uses in Ward no 9. Map shows proposed land use of Ward 09.

Table 6.47: Proposed Land Uses of Ward No. 09

Proposed Land use	9.00	%	Grand Total
Agriculture	93.29	28.04	487.85
Commercial	4.00	1.20	19.28
Commercial and Institution	3.18	0.96	35.03
Education and research institute	1.30	0.39	20.87
Health facilities		0.00	4.76
Industrial and manufacturing 1 (IM-1)	0.26	0.08	10.29
Open Space/green space		0.00	1.67
Public Administrative and Defense		0.00	22.80
Public services and utilities		0.00	10.72
Residential	115.14	34.60	515.86
Road	11.11	3.34	31.23
Transportation facilities	1.47	0.44	10.42
Waterbody	102.99	30.95	430.08
Grand Total	332.74	100.00	1600.87

6.3.3.9 Development Proposals for Ward No-9

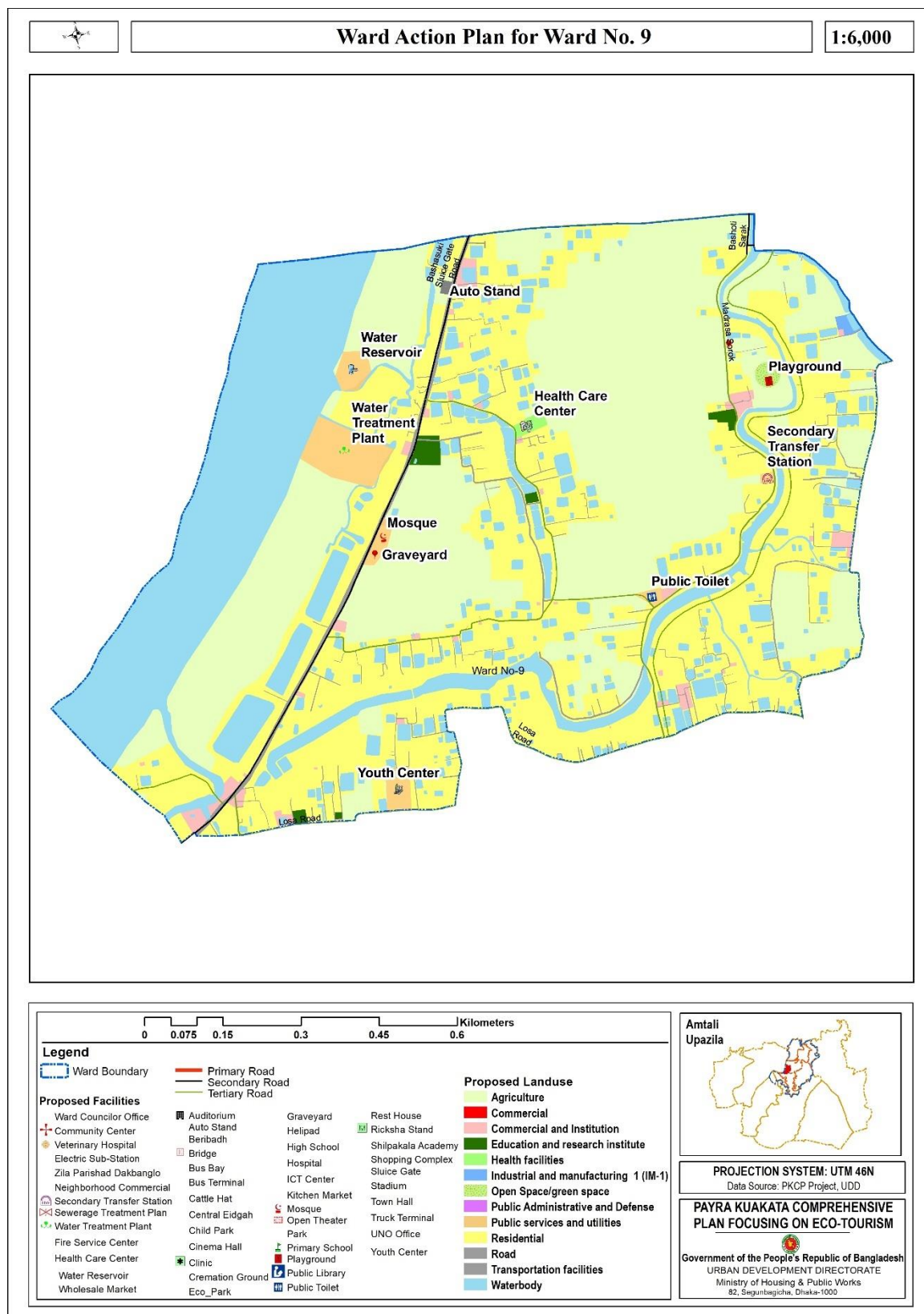
The consultant proposes some urban facilities in Ward No-9. It includes Water Reservoir, Water Treatment Plant, Kitchen Market, Secondary Transfer Station, Graveyard, and Public Toilet etc. The details of the proposal are given in the table below.

307,530,863,153,336

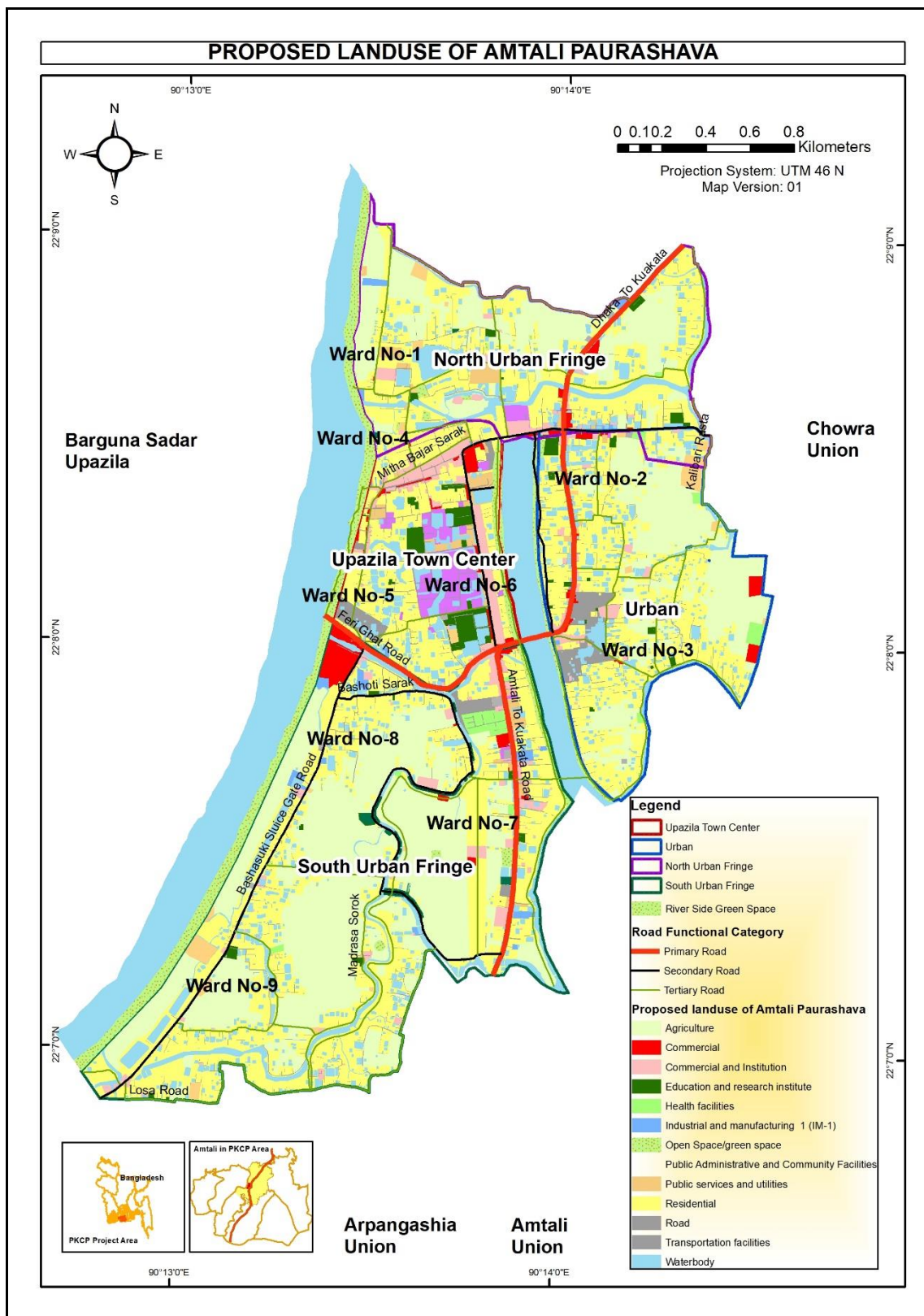
Table 6.48: Development Proposals for ward 09 (Mouza Wise)

SPZ Zone	Land Use Class	Mouza Name	JL No.	Sheet No.	Plot No.
South Urban Fringe	Agriculture	Amtali	31	3	316,733,903,402
South Urban Fringe	Commercial and Institution	Amtali	31	3	307,530,863,153,336
South Urban Fringe	Education and research institute	Amtali	31	3	337,833,863,412
South Urban Fringe	Residential	Amtali	31	2	1110,1116,1218,1253,1276,1289,1294,1301,1303,1313,1327,1331,1334,1339,1341,1343,1360,1383,1449,
South Urban Fringe	Residential	Amtali	31	2	1452,1478,1503,1516,1588,1610,1626,1634,1685,1700,1706,1729,1744,1746
South Urban Fringe	Residential	Amtali	31	2	1,751,190,419,061,930
South Urban Fringe	Residential	Amtali	31	3	3172,3174,3357,3361
South Urban Fringe	Residential	Amtali	31	3	33,683,396
South Urban Fringe	Road	Amtali	31	2	126,015,161,685,175
South Urban Fringe	Road	Amtali	31	3	31,673,357
South Urban Fringe	Transportation facilities	Amtali	31	2	11,171,122,125,212,500
South Urban Fringe	Transportation facilities	Amtali	31	3	3076,3114,3115,3357
South Urban Fringe	Transportation facilities	Amtali	31	3	3,361,336,233,643,360
South Urban Fringe	Waterbody	Amtali	31	2	1116,1119,1122,1216,1217,1224,1225,1226,1227,1228,1234,1237,1240,1241,1243,1244,1245,1246,1253,
South Urban Fringe	Waterbody	Amtali	31	2	1254,1258,1259,1261,1262,1264,1266,1268,1270,1271,1273,1274,1276,1277,1279,1284,1289,1293,1295,
South Urban Fringe	Waterbody	Amtali	31	2	1301,1306,1309,1314,1316,1319,1320,1326,1327,1329,1330,1339,1343,1344,1345,1350,1354,1356,1359,
South Urban	Waterbody	Amtali	31	2	1364,1366,1367,1377,1379,1384,1385,

Fringe					1395,1396,1399,1400,1402,1406,1407, 1408,1436,1443,1448,1449,
South Urban Fringe	Waterbody	Amtali	31	2	1450,1451,1453,1460,1462,1463,1468, 1470,1479,1480,1481,1482,1486,1488,
South Urban Fringe	Waterbody	Amtali	31	2	1492,1495,1496,1497,1499,1501,1502, 1503,1504,1506,1508,1510,1512,1515,
South Urban Fringe	Waterbody	Amtali	31	2	1516,1581,1582,1584,1588,1608,1609, 1627,1630,1632,1634,1680,1685,1688,
South Urban Fringe	Waterbody	Amtali	31	2	1691,1700,1701,1702,1706,1707,1708, 1712,1716,1718,1724,1726,1729,1732, 1733,1738,1743,1744,1745,1746,1751, 1752,1904,1905,
South Urban Fringe	Waterbody	Amtali	31	2	1906,1921,1922,1933,1934,1935,1941, 1961,1962,
South Urban Fringe	Waterbody	Amtali	31	2	1971,1972,1973,1979,1980,1983,1986, 2032,2742,2769,
South Urban Fringe	Waterbody	Amtali	31	3	3061,3073,3075,3077,3081,3083,3086, 3114,3115,3122,3153,3361,3367,3373, 3374,3383,3385,3386,3390,3396,3397, 3399,3400,3415,
South Urban Fringe	Waterbody	Amtali	31	3	344,634,593,462
South Urban Fringe	Health Facilities	Amtali	31	2	1280,1318,1277,1282,1282,1280,1365, 1400,
South Urban Fringe	Open Space/green space	Amtali	31	2	12,981,297
South Urban Fringe	Public services and utilities	Amtali	31	2	129,027,691,327,131
South Urban Fringe	Public services and utilities	Amtali	31	3	3401,
South Urban Fringe	Public services and utilities	Amtali	31	2	1,319,132,713,131,450
South Urban Fringe	Residential	Amtali	31	1	847
Upazila Town Center					439,863,864
Urban					962



Map 6.10: Ward Action Plan for Ward No-9



Map 6.11: Proposed Land Use Plan of Amtali Paurashava

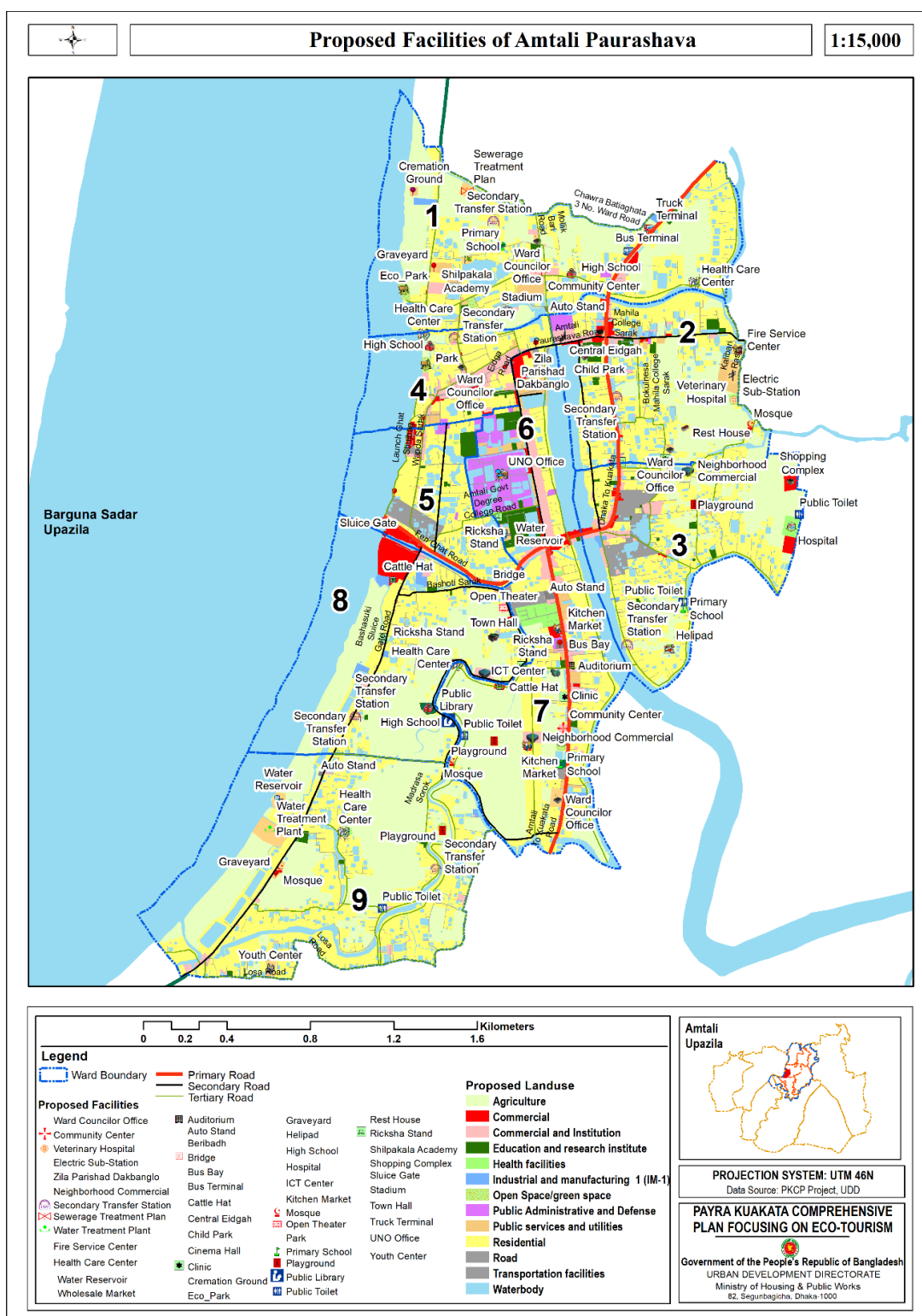
6.3.4 Proposed Facilities

Urban Facilities provide physical facilities and infrastructure facilities and conveniences. There are fifty proposed facilities for the improvement of urban area.

Table 6.48: Ward Wise Urban Facilities

Proposed Facilities	Ward No.									Grand Total
	1	2	3	4	5	6	7	8	9	
Auditorium							0.12			0.12
Auto Stand	0.11						0.52		0.11	0.74
Beribadh								0.23		0.23
Bridge								0.00		0.00
Bus Bay							0.40			0.40
Bus Terminal	0.20									0.20
Cattle Hat							0.30	0.31		0.61
Central Eidgah				1.53						1.53
Child Park		0.89								0.89
Cinema Hall	0.55									0.55
Clinic		0.13					0.39			0.52
Community Center	0.52						0.43			0.95
Cremation Ground	0.08									0.08
Cyclone Shelter	0.11		0.26					0.11	0.04	0.52
Eco_Park	1.05									1.05
Electric Sub-Station		1.30								1.30
Fire Service Center		0.54								0.54
Graveyard	0.37								0.23	0.60
Health Care Center	0.17			0.18			0.13		0.31	0.79
Helipad			0.15							0.15
High School	0.22			0.11				0.72		1.05
Hospital			1.75							1.75
ICT Center							0.19			0.19
Kitchen Market							0.71			0.71
Mosque		0.33					0.15		0.22	0.70
Neighborhood Commercial			0.37				1.16	1.04		2.57
Open Theater								0.45		0.45
Park				0.66			1.28			1.94
Playground			0.20				0.42		0.12	0.73
Primary School	0.09		0.28				0.47			0.84
Public Library								0.16		0.16
Public Toilet			0.17				0.08		0.27	0.51
Rest House		0.39								0.39
Rickshaw Stand			0.02		0.19			0.25		0.47
Secondary Transfer Station	0.09	0.22	0.01	0.26				0.06	0.13	0.76
Sewerage Treatment Plan	1.03									1.03

Shilpakala Academy	0.43									0.43
Shopping Complex			1.38							1.38
Sluice Gate								0.01		0.01
Stadium	1.23									1.23
Town Hall								0.14		0.14
Truck Terminal	0.21									0.21
UNO Office						1.07				1.07
Veterinary Hospital		0.42								0.42
Ward Councilor Office	0.30	0.36		0.10			1.33			2.08
Water Reservoir						0.60			0.92	1.52
Water Treatment Plant									3.41	3.41
Wholesale Market		0.49								0.49
Youth Center									0.93	0.93
Zila Parishad Dakbanglo				0.41						0.41
Grand Total	5.51	5.05	5.81	3.25	0.19	1.67	8.08	3.49	6.69	39.74



Map 6.12: Proposed Facilities of Amtali Paurashava

6.3.5 Ideal Urban Area Facilities

Ideal urban cities can vary based on specific cultural, environmental, and societal contexts, but there are several common criteria that are often considered important for creating livable and sustainable urban environments. An ideal urban city seeks to create a balanced and sustainable environment that enhances the quality of life for its residents, promotes inclusivity, fosters innovation and creativity, and preserves the city's unique cultural identity. Land use wise Ideal Urban Area Facilities has given below.

Table 6.49: List of Urban Services for an Ideal Paurashava

List of Urban Services for an Ideal Paurashava	
1.	Residential Land Area
	Low Density residential
	Medium density
	Planned residential
2.	Commercial land use
	Central Business District/Town Center
	Community Commercial
	Neighborhood Commercial
	ICT /e-commerce Center
3.	Open Space & recreation
	Park
	Play-grounds (stadium, playfield)
	Natural and underdeveloped resources areas (critical habitat and natural beauty such as river bank)
	Cinema Hall
4.	Education and Research Center
	Primary School
	High School
	College
	Madrassa
5.	Health Facilities
	Community Clinic
	Hospital
6.	Community Facilities
	Public Library
	Community Center
	Open Theatre
	Mosque or Religious Facilities
7.	Public Services and utilities
	ICT center
	Fire Service
	Sewerage Treatment
	Waste Disposal Site
	Graveyard

8. Transportation Facilities	
Bus truck, taxi stand/ Terminal	
Rickshaw/ Tempo stand	
Launch Ghat	
Helipad	
9. Administrative	
Government	
10	Roads
11	Agriculture
12	Water bodies
13	Open Space
14	Water works Infrastructure (sluice gate, culverts, sewerage)

Chapter Seven: Conclusion

Conclusion

The Urban Area Plan of Amtali Paurashava consists of the plans for Ward level Plan for the Paurashava. The Amtali Paurashava has already Master Plan under execution, which has been updated for Detailed Action Area Plan under the current project. Some priority actions are suggested for short-term development. While preparing the Ward level Action Area Plans under the present project, major provisions of the existing Paurashava Master Plan were taken into consideration so that conflicts in development can be avoided. In the development process of the Paurashava, coordination among all local authorities within Amtali Paurashava will be necessary for integrated development encompassing the potentials of urban areas. There is scope for local government authorities for cooperation and collaboration among themselves for local development in a comprehensive manner. It is expected that the Urban Area Plans prepared under the current project will provide essential tools for integrated development at Amtali Paurashava. There's no way of the plans will come to fruition without a strong planning section. Must be someone who can lead effectively with plans and development guidelines. Finally, the urban area must pay attention to this planning document to facilitate its future development. meIt must follow the plan throughout development, otherwise the plan will lose its credibility and one day become waste paper that only highlights the problems of cities.

ANNEXURE-A

Land use Permission

a. Residential

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A.1: Land Use Permitted

Permitted Urban Residential Uses	
Artisan's Shop	Project Identification Signs
Assisted Living or Elderly Home	Property Management Signs
Confectionery Shop	Public Transport Facility
Barber Shop	Satellite Dish Antenna
Child Daycare \ Preschool	Shelter (Passers By)
Cleaning \ Laundry Shop	Shoe Repair or Shoeshine Shop (Small)
Communication Service Facilities	CBO Office
Communication Tower Within Permitted Height	Special Dwelling
Condominium or Apartment	Temporary Tent
Cottage	Temporary tent for Permitted Function
Cyber Café	Newspaper Stand
Daycare Center (Commercial or Nonprofit)	Specialized School: Dance, Art, Music, Physically Challenged & Others
Drug Store or Pharmacy	Transmission Lines
Employee Housing (Guards \ Drivers) \ Ancillary Use	Urban-Nature Reserve
General Store	Utility Lines
Grocery Store	Woodlot
High School	Children's Park (Must Have Parking)
Household Appliance and Furniture Repair Service (No Outside Storage)	ATM Booth
Housing For Seasonal Farm Labor	Water Pump \ Reservoir
Landscape and Horticultural Services	Monument (Neighborhood Scale)
Mosque, Place Of Worship	Bill Payment Booth
Newspaper Stand	Boarding and Rooming House

Nursery School	Dormitory
Orphanage	Memorial Structure (Ancillary)
Eidgah	Neighborhood Center* (Where Neighborhood Center exists)
Photocopying and Duplicating Services (No Outside Storage)	Community Center
Pipelines and Utility Lines	Doctor \ Dentist Chamber
Playing Field	Cultural Exhibits and Libraries
Primary School	Fast Food Establishment \ Food Kiosk
Cyclone Shelter	Flowers, Nursery Stock and Florist Supplies
Private Garages (Ancillary Use)	Fitness Centre
Departmental Stores	Gaming Clubs
Retail Shops \ Facilities	

Source: Compiled by the Consultants

*Permission of Neighborhood Center Facilities in absence of formal neighborhood should be subject to Land Use Permit Committee

Land Use Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee following appropriate procedure while the application meets the criteria mentioned in the requirement.

Table A.2: Land Use Conditionally Permitted

Conditionally Permitted	Urban Residential Uses
Addiction Treatment Center	Flood Management Structure
Amusement and Recreation (Indoors)	Telephone Sub Station
Funeral Services	Electrical Sub Station
Art Gallery, Art Studio \ Workshop	Postal Facilities
Automobile Driving Academy	Sports and Recreation Club
Beauty and Body Service	Photofinishing Laboratory
Billiard Parlor \ Pool Hall	Post Office
Book or Stationery Store or Newsstand	Temporary Rescue Shed
Building Maintenance \ Cleaning Services, No Outside Storage	Tennis Club

Bus Passenger Shelter	Guest House
Graveyard \ Cemetery	Slaughter House
Coffee Shop \ Tea Stall	Static Transformer Stations
Correctional Institution	Tourist Home or Resort
Courier Service	Market (Bazar)
Crematorium	Optical Goods Sales
Plantation (Except Narcotic Plant)	Outdoor Café
Furniture & Variety Stores	Outdoor Fruit and Vegetable Markets
Emergency Shelter	Community Hall
Energy Installation	Neighborhood Co-Operative Office
Garages	Overhead Water Storage Tanks
Garden Center or Retail Nursery	Row House
Fire Brigade Station	Paints and Varnishes Store
Police Station	Parking Lot

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted in this zone.

b. Industrial and Manufacturing 1(IM-1)

General Industry land use category approve only Green and Orange-A category industry mentioned in *The Environmental Conservation Rule, 1997*.The following uses in the tables are proposed to be applicable for this zone only.

Table A.3: Land Use Permitted

Permitted General Industrial Activities	
Confectionery Shop	Restaurant
Bank & Financial Institution	Retail Shops \ Facilities
Bicycle Assembly, Parts and Accessories	Salvage Processing
Blacksmith	Salvage Yards
Bus Passenger Shelter	Satellite Dish Antenna
Communication Tower Within Permitted Height	Sawmill, Chipping and Pallet Mill

Freight Transport Facility	Shelter (Passers By)
Police Box \ Barrack	Television, Radio or Electronics Repair (No Outside Storage)
Fire \ Rescue Station	Transmission Lines
Grocery Store	Truck Stop & Washing or Freight Terminal
Household Appliance and Furniture Repair Service	Utility Lines
Machine Sheds	Wood Products
Meat and Poultry (Packing & Processing)	Woodlot
Mosque, Place Of Worship	ATM Booth
Newspaper Stand	Water Pump \ Reservoir
Photocopying and Duplicating Services	Effluent Treatment Plant
Pipelines and Utility Lines	Social Forestry
Printing, Publishing and Distributing Services	Public Transport Facility

Source: Compiled by the Consultants

Land Use Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee following appropriate procedure.

Table A.4: Land Use Conditionally Permitted

Conditionally Permitted General Industrial Land Uses	
Amusement and Recreation (Indoors)	Super Store
Appliance Store	Lithographic or Print Shop
Plantation (Except Narcotic Plant)	Motor Vehicle Fueling Station \ Gas Station
Cyber Café	Motorcycle Sales Outlet
Daycare Center (Commercial or Nonprofit)	Outdoor Fruit and Vegetable Markets
Doctor \ Dentist Chamber	Outside Bulk Storage
Electrical and Electronic Equipment and Instruments Sales	Overhead Water Storage Tanks
Employee Housing	Painting and Wallpaper Sales
Energy Installation	Paints and Varnishes
Fast Food Establishment \ Food Kiosk	Parking Lot
Garages	Parking Lot (Commercial)

Grain & Feed Mills	Private Garages
Incineration Facility	Retail Shops Ancillary To Studio \ Workshop

Source: Compiled by the Consultants

Restricted Uses

All other uses; except the permitted and conditionally permitted uses.

c. Commercial Zone/ Commercial and Residential Zone

Land Use Permitted

Commercial zone is mainly intended for supporting the office and business works. There are several functions that are permitted in this zone.

Table A.5: Land Use Permitted

Permitted Commercial Activity	
Accounting, Auditing or Bookkeeping Services	Market (Bazar)
Billboards, Advertisements & Advertising	Mosque, Place Of Worship
Agri-Business	Motorcycle Sales Outlet
Agricultural Sales and Services	Multi-Storey Car Park
Ambulance Service	Newspaper Stand
Antique Shop	Outdoor Fruit and Vegetable Markets
Appliance Store	Outdoor Recreation, Commercial
Auction Market	Parking Lot (Commercial)
Auditorium, Coliseum, Meeting Halls, and	Pet Store
Conference Facilities, Convention	Photocopying and Duplicating Services
Auto Leasing or Rental Office	Photofinishing Laboratory & Studio
Auto Paint Shop	Pipelines and Utility Lines
Auto Parts and Accessory Sales (Indoors)	Post Office
Auto Repair Shop (With Garage)	Preserved Fruits and Vegetables Facility \
Automobile Wash	Cold Storage
Automobile Sales	Printing, Publishing and Distributing
Confectionery Shop	Project Identification Signs
Bakery or Confectionery Retail	Property Management Signs

Bank & Financial Institution	Public Transport Facility
Barber Shop	Refrigerator or Large Appliance Repair
Beauty and Body Service	Resort
Bicycle Shop	Restaurant
Billiard Parlor \ Pool Hall	Retail Shops \ Facilities
Book or Stationery Store or Newsstand	Salvage Processing
Building Material Sales or Storage (Indoors)	Salvage Yards
Bulk Mail and Packaging	Satellite Dish Antenna
Bus Passenger Shelter	Sawmill, Chipping and Pallet Mill
Cinema Hall	Shelter (Passers By)
Communication Service Facilities	Shopping Mall \ Plaza
Communication Tower Within Permitted Height	Slaughter House
Computer Maintenance and Repair	Software Development
Computer Sales & Services	Sporting Goods and Toys Sales
Conference Center	Taxi Stand
Construction Company	Telephone Exchanges
Courier Service	Television, Radio or Electronics Repair (No Outside Storage)
Cyber Café	Theater (Indoor)
Daycare Center (Commercial or Nonprofit)	Transmission Lines
Department Stores, Furniture & Variety Stores	Utility Lines
Doctor \ Dentist Chamber	Vehicle Sales & Service, Leasing or Rental
Drug Store or Pharmacy	Veterinarian Clinics, Animal Hospitals, Kennels and Boarding Facilities
Electrical and Electronic Equipment and	Warehousing
Instruments Sales	Wood Products
Fast Food Establishment \ Food Kiosk	Woodlot
Freight Handling, Storage & Distribution	ATM Booth
Freight Transport Facility	Water Pump \ Reservoir
Freight Yard	Agro-Based Industry (Rice Mill, Saw Mill, Cold Storage)
General Store	Social Forestry

Grocery Store	Inter-City Bus Terminal
Guest House	Jewelry and Silverware Sales
Hotel or Motel	Junk \ Salvage Yard
Flat/House	Super Store

Source: Compiled by the Consultants

Land Use Conditionally Permitted

Some functions are permitted with some condition in this zone.

Table A.6: Land Use Conditionally Permitted

Conditionally permitted	commercial activities
Amusement and Recreation (Indoors)	Fire \ Rescue Station
Bicycle Assembly, Parts and Accessories	Grain & Feed Mills
Broadcast Studio \ Recording Studio (No Audience)	Household Appliance and Furniture Repair Service
Coffee Shop \ Tea Stall	Incineration Facility
Concert Hall, Stage Shows	Indoor Amusement Centers, Game Arcades
Construction, Survey, Soil Testing Firms	Indoor Theatre
Trade Shows	Lithographic or Print Shop
Craft Workshop	Motor Vehicle Fuelling Station \ Gas Station
Plantation (Except Narcotic Plant)	Musical Instrument Sales or Repair
Energy Installation	Optical Goods Sales
Firm Equipment Sales & Service	Painting and Wallpaper Sales
Agricultural Chemicals, Pesticides or Fertilizers Shop	Paints and Varnishes
Fitness Centre	Parking Lot
Flowers, Nursery Stock and Florist Supplies	Patio Homes
Forest Products Sales	Postal Facilities
Fuel and Ice Dealers	Poultry
Garages	Private Garages
Garden Center or Retail Nursery	Professional Office
Police Box \ Barrack	Retail Shops Ancillary To Studio \ Workshop
	Stone \ Cut Stone Products Sales

Source: Compiled by the Consultants

Restricted Uses

All other uses except; the permitted and conditionally permitted uses.

d. Residential

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A.7: Land Use Permitted

Permitted Rural Settlement	
Agricultural Dwellings	Playing Field
Animal Husbandry	Satellite Dish Antenna
Animal Shelter	NGO \ CBO Facilities
Graveyard \ Cemetery	Special Dwelling (E.G. Dorm For Physically Challenged Etc.)
Child Daycare \ Preschool	Temporary Shed \ Tent
Primary School	Specialized School: Dance, Art, Music, Physically Challenged & Others
Communication Tower Within Permitted Height	Static Electrical Sub Stations
Cottage	Transmission Lines
Crematorium	Utility Lines
Dairy Farming	Woodlot
General Store	Plantation (Except Narcotic Plant)
Grocery Store	Social Forestry
Handloom (Cottage Industry)	Memorial Structure
Housing For Seasonal Firm Labor	orphanage
Mosque, Place Of Worship	Outdoor Religious Events (Eidgah)
Newspaper Stand	Nursery School

Source: Compiled by the Consultants

Land Use Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee following appropriate procedure while the application meets the criteria mentioned in the requirement.

Table No. A.8: Land Use Conditionally Permitted

Conditionally permitted uses under Rural Settlement	
Artisan's Shop (Potter, Blacksmith and Goldsmith Etc.)	Garden Center or Retail Nursery
Research organization (Agriculture \ Fisheries)	Emergency Shelter
Energy Installation	Sports and Recreation Club, Firing Range: Indoor
Fish Hatchery	

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted in this zone.

e. Residential and Commercial

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A.11: Land Use Permitted

Permitted uses in Mixed Use Zone	
Accounting, Auditing or Bookkeeping Services	Fast Food Establishment \ Food Kiosk
Residential Structure(Flat/Apartment/Row House)	Funeral Services
Addiction Treatment Center	General Store
Billboards, Advertisements & Advertising Structure	Grocery Store
	Guest House
Agricultural Sales and Services	Hospital
Antique Store	Jewelry and Silverware Sales
Appliance Store	Landscape and Horticultural Services
Art Gallery, Art Studio \ Workshop	Mosque, Place Of Worship
Artisan's Shop	Newspaper Stand

Assisted Living or Elderly Home	Nursery School
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	Photocopying and Duplicating Services
	Pipelines and Utility Lines
Auto Leasing or Rental Office	Primary School
Automobile Wash	Project Identification Signs
Automobile Driving Academy	Property Management Signs
Confectionery Shop	Public Transport Facility
Bakery or Confectionery Retail	Resort
Bank & Financial Institution	Satellite Dish Antenna
Barber Shop	Shelter (Passers By)
Bicycle Shop	Shoe Repair or Shoeshine Shop (Small)
Billiard Parlor \ Pool Hall	Slaughter House
Blacksmith	Social organization
Boarding and Rooming House	Software Development
Book or Stationery Store or Newsstand	Special Dwelling
Bus Passenger Shelter	Toys and Hobby Goods Processing and Supplies
Child Daycare \ Preschool	Training Centre
Cleaning \ Laundry Shop	Transmission Lines
Commercial Recreational Buildings	Utility Lines
Communication Service Facilities	Vehicle Sales & Service, Leasing or Rental
Communication Tower Within Permitted Height	Warehousing
Community Center	Woodlot
Condominium or Apartment	Children's Park
Correctional Institution	ATM Booth
Courier Service	Water Pump \ Reservoir
Cyber Café	Social Forestry
Daycare Center (Commercial or Nonprofit)	Dormitory
Doctor \ Dentist Chamber	Rickshaw \ Auto Rickshaw Stand
Employee Housing	

Fabric Store	
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Source: Compiled by the Consultants

Land Use Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee.

Table A.9: Land Use Conditionally Permitted

Conditionally permitted uses in Mixed Use Zone	
Agricultural Chemicals, Pesticides or Fertilizers Shop	Freight Transport Facility
Amusement and Recreation (Indoors)	Gaming Clubs
Beauty and Body Service	Garages
Broadcast Studio \ Recording Studio (No Audience)	Garden Center or Retail Nursery
Building Maintenance \ Cleaning Services, No Outside Storage	Commercial Office
Building Material Sales or Storage (Indoors)	Project Office
Graveyard \ Cemetery	Government Office
Coffee Shop \ Tea Stall	Hotel or Motel
Computer Maintenance and Repair	Household Appliance and Furniture Repair Service
Computer Sales & Services	Indoor Amusement Centers, Game Arcades
Concert Hall, Stage Shows	Indoor Theatre
Conference Center	Lithographic or Print Shop
Construction Company	Market (Bazar)
Construction, Survey, Soil Testing Firms	Health Office, Dental Laboratory, Clinic or Lab
Cottage	Musical Instrument Sales or Repair
Counseling Services	Optical Goods Sales
Craft Workshop	Outdoor Café
Crematorium	Outdoor Fruit and Vegetable Markets
Plantation (Except Narcotic Plant)	Painting and Wallpaper Sales
Cultural Exhibits and Libraries	Paints and Varnishes
	Patio Homes

Department Stores, Furniture & Variety Stores	Photofinishing Laboratory & Studio
Drug Store or Pharmacy	Poultry
Energy Installation	Printing, Publishing and Distributing
Fitness Centre	Psychiatric Hospital
Flowers, Nursery Stock and Florist Supplies	Retail Shops Ancillary To Studio \ Workshop
Freight Handling, Storage & Distribution	Radio\Television or T&T Station With
Sporting Goods and Toys Sales	Refrigerator or Large Appliance Repair
Sports and Recreation Club, Firing Range: Indoor	Restaurant
Telephone Exchanges	Retail Shops \ Facilities
Television, Radio or Electronics Repair (No out Outside Storage)	

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted in this zone.

f. Education and Research

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A.10: Land Use Permitted

Permitted uses under Education & Research Zone	
Addiction Treatment Center	Cyber Café
Billboards, Advertisements & Advertising Structure	Freight Transport Facility
Art Gallery, Art Studio \ Workshop	General Store
Automobile Driving Academy	Grocery Store
Confectionery Shop	High School
Bus Passenger Shelter	Hospital
Child Daycare \ Preschool	Lithographic or Print Shop
College, University, Technical Institute	Mosque, Place Of Worship

Communication Service Facilities	Multi-Storey Car Park
Communication Tower Within Permitted Height	Newspaper Stand
Conference Center	Nursery School
Correctional Institution	Outdoor Religious Events
Cultural Exhibits and Libraries	Photocopying and Duplicating Services
Transmission Lines	Post Office
Utility Lines	Primary School
Vocational, Business, Secretarial School	Professional Office
Woodlot	Project Identification Signs
ATM Booth	Property Management Signs
Water Pump \ Reservoir	Public Transport Facility
Social Forestry	Satellite Dish Antenna
Dormitory	School (Retarded)
Veterinary School \ College and Hospital	Scientific Research Establishment
Training Centre	Shelter (Passers By)
	Specialized School: Dance, Art, Music & Others

Source: Compiled by the Consultants

Land Use Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table A.11: Land Use Conditionally Permitted

Conditionally permitted uses under Education and Research Zone	
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	Flowers, Nursery Stock and Florist Supplies
Bank & Financial Institution	Gallery \ Museum
Barber Shop	Garages
Boarding and Rooming House	Indoor Theatre
Book or Stationery Store or Newsstand	orphanage
Coffee Shop \ Tea Stall	Outdoor Café
Counseling Services	Parking Lot

Courier Service	Pipelines and Utility Lines
Plantation (Except Narcotic Plant)	Postal Facilities
Daycare Center (Commercial or Nonprofit)	Psychiatric Hospital
Doctor \ Dentist Chamber	Fast Food Establishment \ Food Kiosk
Drug Store or Pharmacy	

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted in this zone.

g. Public Administrative and Community Facilities/Public Services and Utilities

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A.15: Land Use Permitted

Permitted uses under Government Office Zone	
Accounting, Auditing or Bookkeeping Services	Outdoor Religious Events
Billboards, Advertisements & Advertising Structure	Photocopying and Duplicating Services
	Post Office
Confectionery Shop	Professional Office
Bus Passenger Shelter	Public Transport Facility
Civic Administration	Satellite Dish Antenna
Communication Service Facilities	Scientific Research Establishment
Communication Tower Within Permitted Height	Shelter (Passers By)
	Training Centre
Construction, Survey, Soil Testing Firms	Transmission Lines
Cultural Exhibits and Libraries	Utility Lines
Cyber Café	Woodlot
Emergency Shelter	ATM Booth
Freight Transport Facility	Water Pump \ Reservoir
General Store	Social Forestry

Project Office	Multi-Storey Car Park
Government Office	Newspaper Stand
Grocery Store	
Guest House	

Source: Compiled by the Consultants

Land Use Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table A.16: Land Use Conditionally Permitted

Conditionally permitted uses	under Government office
Amusement and Recreation (Indoors)	Gallery \ Museum
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	Garages
Bank & Financial Institution	Police Box \ Barrack
Boarding and Rooming House	Fire \ Rescue Station
Book or Stationery Store or Newsstand	Lithographic or Print Shop
Coffee Shop \ Tea Stall	Mosque, Place Of Worship
Conference Center	Outdoor Café
Courier Service	Parking Lot
Plantation (Except Narcotic Plant)	Parking Lot (Commercial)
Daycare Center (Commercial or Nonprofit)	Pipelines and Utility Lines
Detention Facilities	Postal Facilities
Doctor \ Dentist Chamber	Flowers, Nursery Stock and Florist Supplies
Energy Installation	Freight Handling, Storage & Distribution
Fast Food Establishment \ Food Kiosk	Freight Yard

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted in this zone.

h. Agriculture

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A17: Land Use Permitted

Permitted uses under Agricultural Zone	
Food Grain Cultivation	Duckery
Vegetable Cultivation	Aquatic Recreation Facility (Without Structure)
Cash Crop Cultivation	Tree Plantation (Except Narcotic Plant)
Horticulture	Aquaculture
Arboriculture	Static Transformer Stations
Dairy Farming	Transmission Lines
Deep Tube Well	Utility Lines
Shallow Tube Well	Woodlot
Irrigation Facilities (Irrigation Canal, Culvert, Flood Wall etc)	Social Forestry
Temporary Structure (Agricultural)	
Animal Shelter	

Source: Compiled by the Consultants

Land Use Conditionally Permitted

Table A18: Land Use Conditionally Permitted

Conditionally permitted uses under Agricultural Zone
Graveyard \ Cemetery
Communication Tower Within Permitted Height
Crematorium
Fish Hatchery
Garden Center or Retail Nursery
Poultry

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted in this zone.

i. Open Space/ Green Space

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A.19: Land Use Permitted

Permitted uses under Open Space	
Botanical Garden & Arboretum	Pipelines and Utility Lines
Bus Passenger Shelter	Playing Field
Caravan Park \ Camping Ground	Special Function Tent
Carnivals and Fairs	Tennis Club
Circus	Transmission Lines
Plantation (Except Narcotic Plant)	Urban-Nature Reserve
Landscape and Horticultural Services	Utility Lines
Open Theater	Woodlot
Park and Recreation Facilities (General)	Zoo
Social Forestry	Roadside Parking
Memorial Structure	

Source: Compiled by the Consultants

Landuse Conditionally Permitted

Table A 20: Land Use Conditionally Permitted

Conditionally permitted uses under open space	
Communication Tower Within Permitted Height	Outdoor Recreation, Commercial
Trade Shows	Outdoor Sports and Recreation
Fitness Centre	Park Maintenance Facility
Flowers, Nursery Stock and Florist Supplies	Retreat Center
Golf Course	Sports and Recreation Club, Firing Range: Indoor
Motorized Recreation	Outdoor Recreation Facilities

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted.

j. Water Body

Retaining water is the main purpose of this type of Landuse.

Land Use Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table A.21: Land Use Permitted

Permitted uses under Water Body
Aquatic Recreation Facility (Without Structure)
Fishing Club
Utility Lines
Water Parks
Memorial Structure

Source: Compiled by the Consultants

Land Use Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table A.22: Land Use Conditionally Permitted

Conditionally permitted uses under water body
Plantation (Except Narcotic Plant)
Marina \ Boating Facility
Motorized Recreation

Source: Compiled by the Consultants

Restricted Uses

All uses except permitted and conditionally permitted uses are restricted.

ANNEXTURE-B

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