Payra-Kuakata Comprehensive Plan Focusing on Eco-Tourism

Taltoli Urban Area Plan: 2021-2031

Printed and Published by:

Urban Development Directorate

82, Segun Bagicha, Dhaka,

Bangladesh.

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URBAN DEVELOPMENT DIRECTORATE

Ministry of Housing and Public Works

First Edition: June, 2023

Price: BDT 3000.00

রেজিস্টার্ড নং ডি এ-১

বাংলাদেশ



অতিরিক্ত সংখ্যা কর্তৃপক্ষ কর্তৃক প্রকাশিত

বৃহস্পতিবার, আগস্ট ২৯, ২০২৪

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার গৃহায়ন ও গণপূর্ত মন্ত্রণালয় পরিকল্পনা শাখা-৩

প্রজ্ঞাপন

তারিখ: ০৬ ভাদ্র ১৪৩১ বঞ্জাব্দ/ ২১ আগস্ট ২০২৪ খ্রিষ্টাব্দ

নং ২৫.০০.০০০০.০৩২.১৪.০১৬.১৫(অংশ-১)/৩৬৪ তদানিন্তন পূর্ব পাকিস্তান সরকারের ১৭ জুলাই ১৯৬৫ তারিখের ৪৬৪ নং স্মারকে গঠিত 'Urban Development Directorate' এর কার্যাবলির ২নং ক্রমিকে বর্ণিত "to prepare and co-ordinate regional plans, master plans and detailed layout and site plans for the existing as well as the new urban centres excluding the areas covered by the present town development authorities of Dhaka, Chittagong and Khulna" এর প্রদত্ত ক্ষমতাবলে গণপ্রজাতন্ত্রী বাংলাদেশ সরকার "পায়রা বন্দর নগরী ও কুয়াকাটা উপকূলীয় অঞ্চলের পরিবেশ পর্যটনভিত্তিক সমন্বিত পরিকল্পনা প্রণয়ন" শীর্ষক প্রকল্পের আওতায় মান্টার প্ল্যান (১টি রিজিওনাল প্লান, ০৭ টি স্ট্রাকচার প্ল্যান, ০৭টি রুরাল এরিয়া প্ল্যান, ০৬টি আরবান এরিয়া প্ল্যান এবং এ্যাকশন এরিয়া প্ল্যান ফর সোনার চর এক্সক্লুসিভ টুরিন্ট জোন) প্রণয়ন সম্পন্ন করিয়াছে।

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(\$886\$)

মূল্য : টাকা 8·oo

বিশেষ দ্রষ্টব্যঃ অনুমোদিত প্ল্যানসমূহ নগর উন্নয়ন অধিদপ্তরের প্রধান কার্যালয়, বরিশাল আঞ্চলিক অফিস, বরগুনা ও পটুয়াখালী জেলার জেলা প্রশাসকের কার্যালয় এবং সংশ্লিষ্ট উপজেলা ও পৌরসভা কার্যালয়ে জনসাধারণের পরিদর্শনের সুবিধার্থে সংরক্ষিত থাকিবে।

রাষ্ট্রপতির আদেশক্রমে

মোহাম্মদ খাদেমুর রহমান সহকারী সচিব।

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EXECUTIVE SUMMARY

The structure plan, potential urban area plan, and rural area plan are the three parts of the Taltali Upazila Plan. The Structure Plan aims to integrate economic, physical, and environmental goals by focusing on the physical development of broad policies for controlling and supporting efficient urban growth over the long term. Additionally, it lists the fundamental strategy alternatives that can be used to handle the predicted expansion. The Structure Plan also includes important sector-level strategies to direct development over a longer time frame (20 years) in the intended direction.

The second component is the Potential Urban Area Plan, which combines the Structure Plan at the top tier of the plan. The Potential Urban Area Plan offers a temporary, 10-year framework for the potential urban area's growth under the general guidelines established by the longer-term structure plan. The plans may be created for particular urban areas that were designated in the structure plan for rapid development or for particular projects and upgrades. The ideal development pattern is described in full, together with the locations of the roadways, infrastructure, community facilities, and land use zones. For the urban area of Taltali, an expected growth rate has been determined in consideration of development growth trends. The Strategic Planning Zones, land use plan, transportation and traffic management plan, drainage and environmental management plan, and plan for urban services make up the four parts of the possible urban area plan.

Strategic Planning Zones are categorized based on the growth pattern and development potentiality of the area. According to this, the potential urban area of Taltali has divided into seven types.

Land use zoning is the primary focus of the Land Use Plan. 318.52 acres of the land is set aside for residential use. 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. A total of about 63 kilometers of roads has been suggested for the development of the Potential Urban Area's circulation system 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 potential Urban Area Plan for Taltali Upazila, 2021-2031, is preparing under the "Payra Kuakata Comprehensive Plan Focusing on Eco-Tourism" project to facilitate sustainable urbanization for its potential area. An urban area plan is a detailed framework that outlines how a city or urban area should be developed over a specific period. The plan typically includes policies, guidelines, and regulations for land use, zoning, transportation, infrastructure, drainage, housing, and environmental protection. The goal of an urban area plan is to provide a comprehensive and coordinated approach to guide the growth and development of a city or urban area in a way that meets the needs of its residents, businesses, and visitors while preserving its unique character and identity.

The urban area plan is usually created through a collaborative process involving various stakeholders, including government officials, planners, architects, developers, community leaders, and local people. The plan may be updated periodically to reflect changing needs and priorities, as well as changes in the physical, social, and economic conditions of the urban area. Urban development strategies were laid accordingly, and this land use plan was prepared.

Urban Area Plan is concerned with the planned sustainable development of the urban area of a town or settlement and the protection of its environs. In establishing the limits of the urban area, this Plan is complacent of existing development, projects approved for development but not yet built, and of development in progress. Urban Area Plan includes those areas which require economic, physical and social renewal and for areas likely to be subject to large-scale development over the lifetime of the plan.

Overall, an urban area plan provides a roadmap for the sustainable growth and development of a city or urban area, balancing economic, social, and environmental considerations, and ensuring that the urban area remains vibrant, livable, and competitive in the long term.

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

In Taltali Upazila, there is no Paurashava as well as Urban Area. As a newly constituted area, formed in January 2012, this is one of the backward Upazila in our country. From the uppertier plans, with several analyses and local demand, a certain portion of area is proposed as a Potential area for future urban development. This plan is based on the Potential Urban Area of Taltali. The potential area is the main economic and administrative hub of this Upazila.

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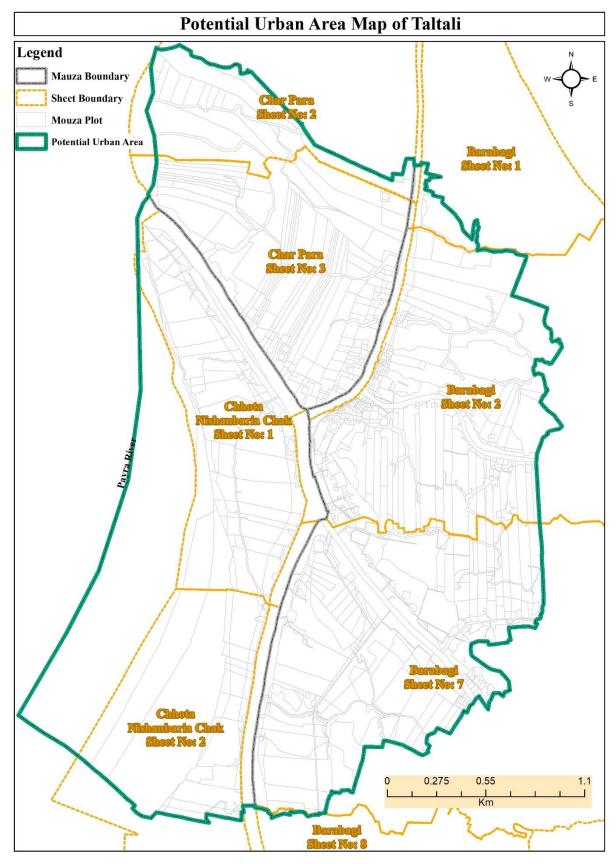


Figure 1:Taltali Potential Urban Area Map

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 guide how it can develop the roles i.e., to promote development, co-ordinate development and 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. For Taltali Upazila all the studies of Urban Area Plan are concerned with the potential urban area.

1.3 Area Coverage under Urban Area Plan

As a recent Upazila, Taltali Upazila has no Pourashava yet but certain area has a great impact of urban growth. Getis-Ord Gi statistical method has been applied to identify potential area for development considering the past and present trend of infrastructural development. According to the analysis, the Taltali Bazar area has probable urban growth. From the Regional Plan, a certain location centered on the Taltali Bazar area was indicated as Urban Promotion Zone. Further, in the Structure Plan, it is declared as a Potential Future Urban Area including the urban promotion zone with some surrounding portions. An area of about 2100 acres is proposed as the Potential Urban Area based on the structure density, population projection, future demand etc. in Urban Area Plan.

1.4 Urban Plan Proposals

Depending on existing facilities, projected population for 10 years and local demand from PRA the urban facilities are distributed. 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 Reflection from Upper-Tier Plans

Upper-tier plans, such as regional plan and structure plan can provide valuable insights and guidance for potential 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.

For example, if a regional plan emphasizes the need to reduce greenhouse gas emissions, it can incorporate policies and regulations that promote sustainable transportation, energyefficient 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 Taltali 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 potential urban area of about 2100 acres. The Urban Area Plan provides a mid-term strategy up to the year 2031 for the development of the existing potential urban area and those areas likely to under urbanization over the decade. come next

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CHAPTER TWO: STRATEGIC PLANNING ZONES

2.1 Strategic Planning Zones

Strategic Planning Zones (SPZs) are designated areas within a municipality or a region that are identified for specific land use purposes. These zones are typically used to support and facilitate the implementation of strategic plans and policies for the area. The main purpose of SPZs is to promote sustainable and coordinated development by directing development and land use activities in a way that is consistent with the overall vision and objectives of the area's strategic plan. SPZs are mainly established through zoning regulations and may include a range of land use designations such as residential, commercial, industrial, or green space.

The specific characteristics of SPZs may vary depending on the needs of the municipality or region, but they typically involve a collaborative process involving community stakeholders, government officials, and planning professionals. Through this process, stakeholders can identify and prioritize areas for development and determine appropriate land uses, design standards, and development guidelines. The SPZs of Taltali Potential urban area are divided into seven zones. It has taken over to enable consideration of a number of higher-level parameters for whole parts of the SPZs or for some parts of the SPZs.

The SPZs are including high-growth areas, comparatively middle and low-growth areas which might show urban characteristics in the near future. It also includes some agricultural lands as Urban Deferred to secure the urban food demand and Future Urban Development. Whether urban, urbanizing or remaining rural clarity is required on the legal status of the existing land use and on the change in land use that may be promoted, allowed or prohibited. The Spatial Planning Zones are-

- > SPZ 01: Upazila Town Center
- > SPZ 02: Central Urban
- > SPZ 03: North Urban
- > SPZ 04: South Urban
- > SPZ 05: North-East Urban Fringe
- > SPZ 06: South-East Urban Fringe
- > SPZ 07: West Urban Fringe

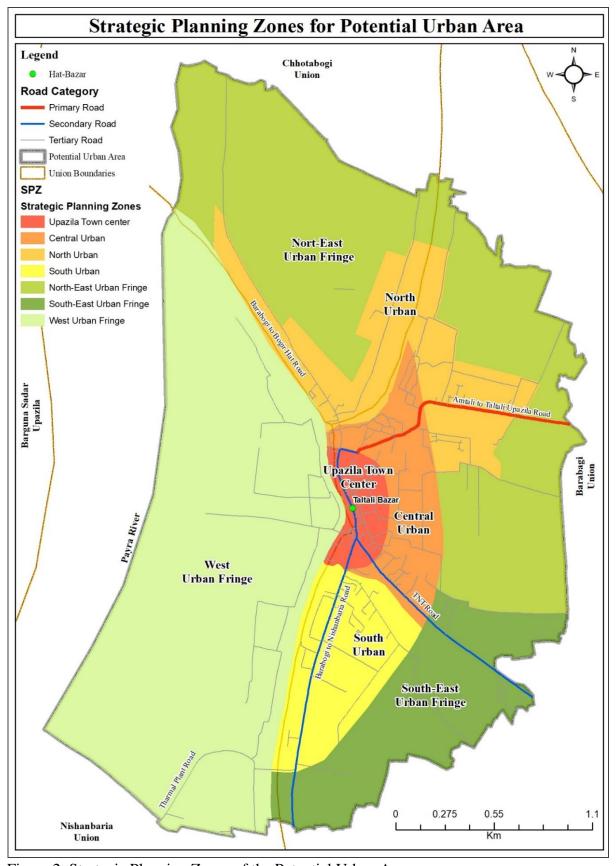


Figure 2: Strategic Planning Zones of the Potential Urban Area

2.1.1 SPZ 01: Upazila Town Center (UTC)

UTC mainly includes Core Business District of a particular area. The area is dominated by commercial uses while the remainder is predominantly mixed use. In this plan, the UTC area comprises the surrounding areas of Taltali Bazar. Moreover, it is one of the growth centers in this Upazila. The main economic activities of Taltali are centered on this bazar. It has a comparatively good road network with the other parts of the Upazila as well as outer areas. In mixed-use areas, there are mainly commercial-dominated residential buildings. Moreover, the Taltali AC Land Office and Upazila Dak Bungalow are located here.

Major Issues and Problems

- ➤ The economic activities of Taltali Upazila are very limited. People mainly deal with agricultural and fishery-related products.
- ➤ Though the road network is comparatively better than the other parts of the Upazila, a lot of roads are narrow and earthen surfaces with very bad conditions.
- > 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.
- ➤ There are water source crises for the Local People.

Opportunities

- ➤ 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.
- > Some ponds are proposed to be reserved for available drinking water sources.

Action Required

- ➤ Widening of roads and Construction of drainage should 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 as a gateway to Taltali.
- > Parking facilities are necessary to avoid congestion.
- ➤ 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.

2.1.2 SPZ 02: Central Urban

UTC is the most developed area for any city or town center. In this plan, Central Urban, indicates mainly the mixed-used area which is dominated by residential uses and shows high growth rate during the past years. Moreover, it is predicted that high development will occur over time in this area. Depending on this analyses output, a lot of public facilities and services are also proposed in this zone. This area will promote high-density residential and

Arterial commercial land uses. High-density residential area 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. Arterial Commercial such as restaurants and service stations as well as wholesale and retail activities located on arterial streets. Moreover, community commercials are also promoted here.

Major Issues and Problems

- 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 are poor condition of several roads.
- ➤ The Rakhine Ethnic community is located in this zone.

Opportunities

- ➤ 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-Taltali 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 UTC 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

- > Defer development activities on land required for new road.
- > Initiate community-based actions to prepare local development plan.
- > Pursue different government agencies to prepare infrastructure plans before development takes place.
- > 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.
- A municipality or development board should be created for the governance of the zone and to provide guidance for public and private development.
- Rakhine ethnic group should be given special emphasis.

2.1.3 SPZ 03: North Urban & SPZ 04: South Urban

These areas comprise the mixed-used area which is dominated by residential uses and show comparatively low growth rates than the high-density area during the past years. Likewise, it is predicted that moderate development will occur over time in this area. As a low-development area, a lot of public facilities and services are also proposed in a planned way in this zone. This area will encourage medium-density residential development and community commercial land uses. Medium Density Residential is proposed primarily for medium-density detached and attached residential dwellings, including existing developed areas and vacant lands and required supporting facilities and utilities. These areas promote vertical growth as well as linear growth. Community Commercial Areas are defined as commercial activities to meet the retail shopping and service needs of the community. Accommodates

clusters of retail, financial, professional service businesses and entertainment activities that attract shoppers from different areas.

Major Issues and Problems

- > Spontaneous development without proper infrastructure provision.
- ➤ No drainage network except natural water bodies.
- ➤ No initiative for the provision of infrastructure reserve.
- > There is poor condition of several roads.

Opportunities

- ➤ This area is comparatively low development. As a result, planned development is possible to propose here.
- The 80ft bypass road which is described in the previous zone, also passes through the eastern boundary of the medium-density zone situated in the southern part of the potential urban area. This road is also connecting Bogir Hat Road. Consequently, the main vehicles can be directed towards the road of the thermal power station through the bypass road without entering the dense urban area.
- > Proximity to the high-density development area with primary and secondary roads.
- > 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

- ➤ Comply with development activities on land required for new roads.
- > Initiate community-based actions to prepare local development plans.
- ➤ Pursue different government agencies to prepare infrastructure plans before development takes place.
- As this zone is a buffer area separating the higher-density area and UTC from lower-density residential areas, both linear and vertical development will be permitted here for planned sustainable development.
- A municipality or development board should be created for the governance of the zone and to provide guidance for public and private development.

2.1.4 SPZ 05: South-East Urban Fringe & SPZ 06: North-East Urban Fringe

These areas refer to the low-density cluster of rural settlements and show comparatively low growth rates than the medium-density area during the past years. Similarly, it is assumed that low development will occur over time in this area. This area will encourage low-density residential development and neighborhood commercial land uses. Moreover, some major Utility and Public Facilities are proposed in this zone that will serve the major areas of the potential urban area. Low-density Residential is intended primarily for low-density, single-family, detached residential dwellings and vacant land with constraints to development at higher densities. Areas where the 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 which include convenience retail and service establishments relying upon frequent purchases and having small trade areas.

Issues and Problems

- Very Low-density development.
- > Spontaneous development without proper infrastructure provision

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➤ No initiative for the provision of infrastructure reserve.

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 area.
- > The transport corridor and natural setting marks the zone as high-quality residential area.

Action Required

- ➤ Identify the alignment of proposed roads and roads that need up-gradation.
- > Initiate community-based awareness programs to preserve and protect water bodies.
- Motivate the community to maintain previous ground coverage to a ratio of
- > Initiate community-based actions to prepare local development plans.
- > Pursue different government agencies to prepare infrastructure plans before development takes place.
- > Prepare Local Area Plan on a priority basis.

2.1.5 SPZ 07: West Urban Fringe

This area is mainly an agricultural-dominated area. It is proposed to be conserved for the Upazila's projected growth and accommodate the land uses which will convert over time new land uses, such as new industrial, commercial and residential areas. These areas are endorsed for conversion from the current land use to new land use and promoted for urbanization in the future.

Major Issues and Problems

- A substantial part of the zone is low laying. However, new urbanization pressures may endanger the area reserved for a retention area.
- ➤ This zone is mostly an agricultural-dominated area and needs special protection.
- > The expansion of residential houses took place fast.

Opportunities

- ➤ It has potential 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.

Action Required

- ➤ 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.

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➤ For providing improved access, various khals in the zone may be re-excavated, and which may then also be used for retaining irrigation water.

Table 1: Mauza List under Specific SPZs

SPZ Catagory	Mouza Name	JL_No	Sheet No
Central Urban	Barabagi	44	2, 7
	Char Para	40	3
	Chhota Nishanbaria Chak	41	1
North Urban	Barabagi	44	2
	Char Para	40	3
	Chhota Nishanbaria Chak	41	1
North-East Urban Fringe	Barabagi	44	1, 2, 7
	Char Para	40	2, 3
South Urban	Barabagi	44	7
	Chhota Nishanbaria Chak	41	1, 2
South-East Urban Fringe	Barabagi	44	7, 8
	Chhota Nishanbaria Chak	41	2
Upazila Town center	Barabagi	44	2, 7
	Chhota Nishanbaria Chak	41	1
West Urban Fringe	Barabagi	44	2, 7, 8
	Char Para	40	3
	Chhota Nishanbaria Chak	41	1, 2

CHAPTER THREE: URBAN LAND USE PLAN

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 on current development, natural land characteristics, and projected municipal services and facilities.

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 the 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.

3.1 Existing Land Use

As Taltali Upazila has no Paurashava, the Potential Urban Area is mainly rural in nature. Surrounding the areas of Taltali Bazar, potential growth is happening in recent years, communication development has already impacted the growth and expansion of activities. The existing land shows that almost 57% of the land is used for agricultural activity, and another mentionable land-use area is 15.60% residential and 23% waterbody. Only about 2% of land is covered by road network.

Table 2: Land Use in 2021 of the Potential Urban Area

Existing Land Use Category	Area (Acre)	%
Administrative/ Public Service	12.01	0.59
Agriculture	1159.11	56.76
Commercial	3.31	0.16
Community Service	4.78	0.23
Education and Research	10.97	0.54
Forest	0.30	0.01
Health Service	1.65	0.08
Manufacturing and Processing	1.27	0.06
Mixed Use	11.55	0.57
Residential	318.52	15.60
Road	34.89	1.71
Service Activity	6.71	0.33
Transportation and Communication	8.28	0.41
Waterbody	468.64	22.95
Total	2042.00	100.00

Source: PKCP Project, UDD, 2022

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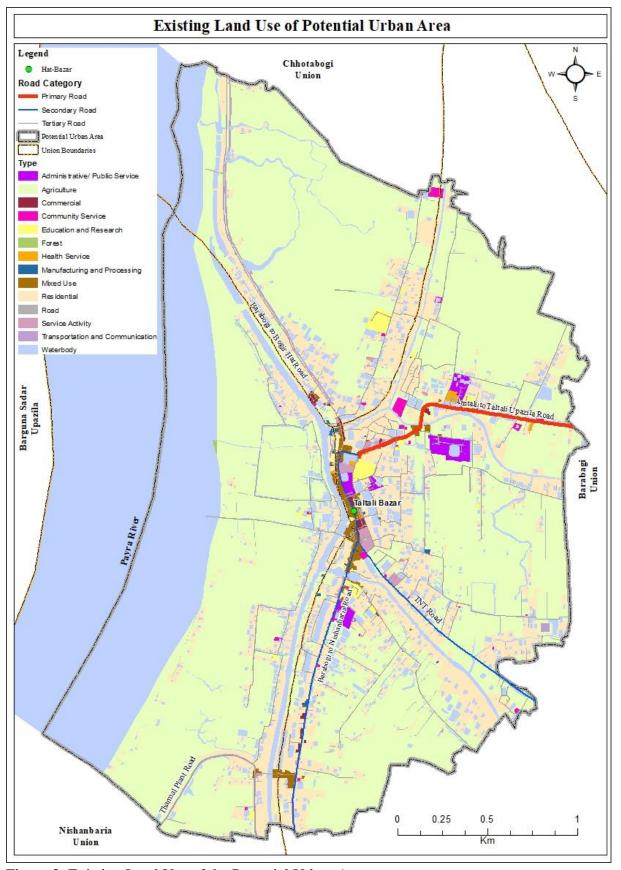


Figure 3: Existing Land Use of the Potential Urban Area

3.2 Demography of the Potential Urban Area

As the selected area is not a jurisdictional area, there is no certain population. The population is projected based on the household population of the three Unions. According to the analysis, there are about 10000 population in 2021.

Table 3: Projected Population of the Potential Urban Area

Union	Area (Sq km)	2021	Density	2031	Density
Barabagi	3.51	6198	1764	7703	2193
Chhota Bagi	1.71	1608	941	1986	1161
Nishanbaria	3.04	2102	691	2614	859
Total	8.26	9908	1199	12302	1489

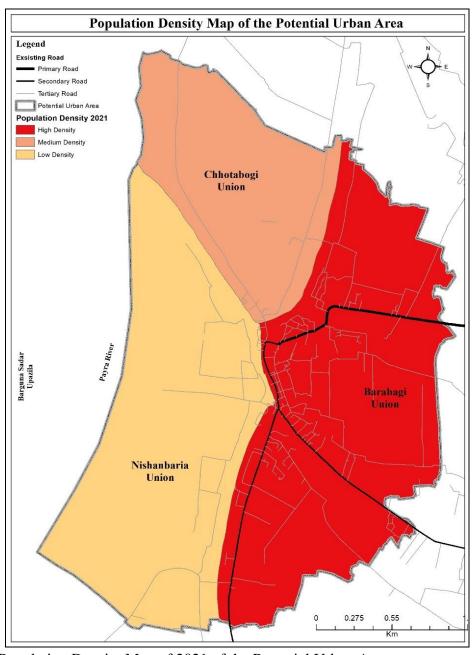


Figure 4: Population Density Map of 2021 of the Potential Urban Area

3.3 Development Pattern

Land use and development are key components of an area's sustainability, predominantly as they generate the necessity for particular types of transportation systems, other types of infrastructure, and public facilities. The development or growth pattern means how much land is developed for residential, employment, and institutional purposes etc. The growth pattern of the Potential Urban Area of Taltali is defined based on the structure density.

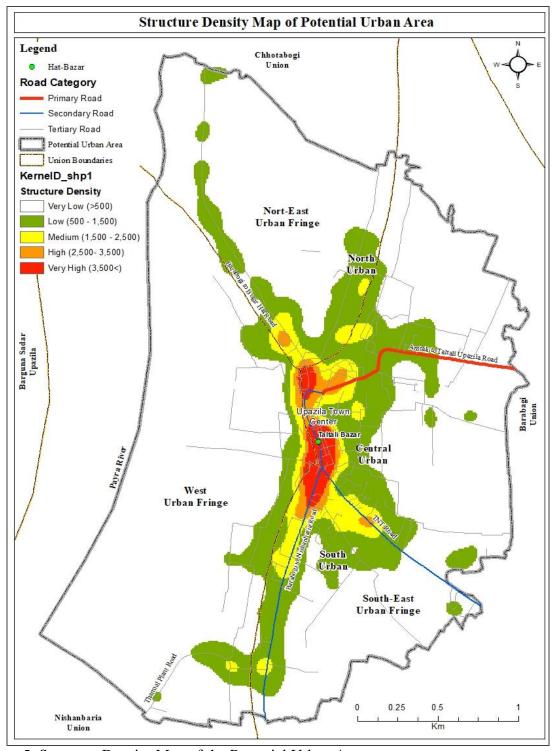


Figure 5: Structure Density Map of the Potential Urban Area

3.4 Proposed Land Use

The proposed land use of Taltali Potential Urban area is anticipated mainly based on the development pattern and existing land use. The Public services and facilities are proposed considering the PRA output, Stakeholder requirements and several GIS analyses. The land uses are categorized in 17 specific classes. Agriculture, Commercial, Mixed Use, Education and Research, Forest, Health Facilities, Industrial and manufacturing 1, Open Space/Green Space, Public Administrative and Defense, Public Service & Utilities, Residential, Transport Facilities, Road and Waterbody are the main categories. The Mixed Land Use is subdivided into Commercial & Institution, Commercial & Residential, Residential & Commercial, and Residential & Institution land uses. The given below table shows the area coverage under each land use category and their percentage.

Table 4: Proposed Potential Urban Area Land Use for 2031

Proposed Land use 2031	Area (Acre)
Agriculture	925.19
Commercial	11.14
Commercial and Residential	11.65
Education and Research	11.62
Health Facilities	2.39
Industrial and Manufacturing 1(IM-1)	0.86
Open Space/ Green Space	283.63
Public Administrative and Community Facilities	16.71
Public Services and Utilities	13.68
Residential	277.00
Residential and Commercial	48.85
Road	112.81
Transportation Facilities	6.06
Waterbody	321.03
Total	2042.61

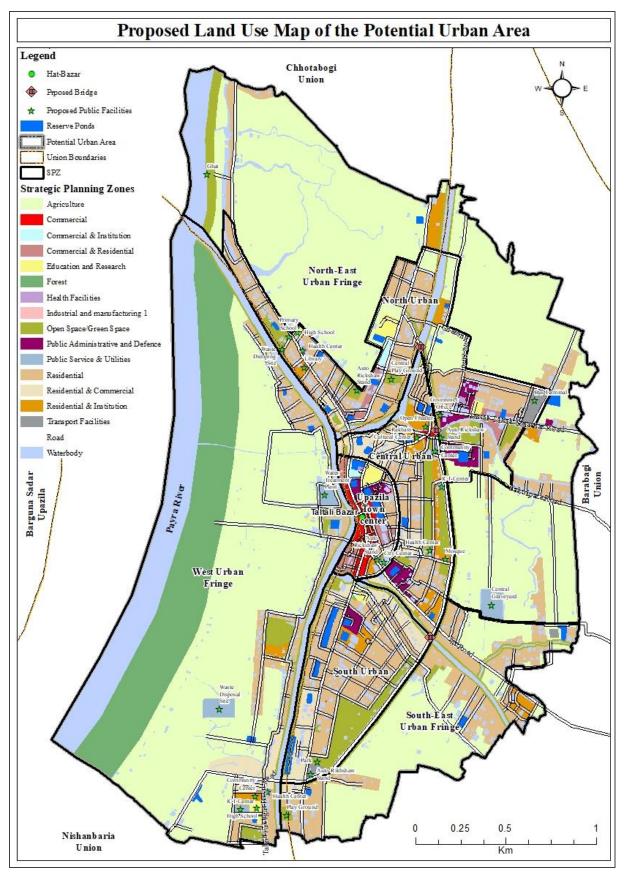


Figure 6: Map of Proposed Potential Urban Area Land Use for 2031

3.5 Land Use Permissions and Mauza list

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 Urban Area depending upon its size and its socioeconomic and physical characteristics. For each of these zones, land uses are indicated in three categories –permitted uses, conditional uses and use requiring a special plan review.

Table 5: Permitted Table of Specific Land Use Categories

	Land use	Permit	Remarks
1	Residential	Residential developments for:	The developments in
	a. Low density residential	1. Flats	this zone are subject to controls on building
	b. Medium	2. Condominium	form and building
	density c. High density	3. Town house	height as determined by the competent
	residential	4. Terrace House	authority. The
	d. Planned residential	5. Semi-Detached House	quantum of all ancillary or non-
	e. Special area (aborigine's	6.Detached House	residential uses needed for support or
	area,	7. Strata-Landed Housing	management of a
	fishermen's area, low	8. Retirement Housing	residential estate are to be determined by the
	income	9. Serviced Apartments	competent authority
	housing)	10. Student Hostel	according to the scale of the residential
			development.
2	Commercial	Developments for:	The developments in
	a. Central Business District/ Town center	 Offices Mixed Uses (e.g. Office/Shopping/Cinema/Hotel/Flat). Convention/Exhibition Centre 	this zone are subject to controls on the type and quantum of commercial uses as
	b. Community commercial	4. Commercial5. Bank	determined by the competent authority.
	c. Neighborhood commercial	6. Market/Food Centre/Restaurant7. Cinema	
	d. ICT/e- commerce center	8. Entertainment9. Foreign Trade10. Mission/Chancery	
	e. Urban Street Vendor		
	f. Farmer's market		

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3 Residential and 1. Flats with commercial uses at 1st Commercial areas are storey Commercial normally restricted to 2. Shop 1st the storey. 3. Residential Developments (e.g. Commercial areas Flats) may be allowed above and/or below the 1st storey subject evaluation by the competent authority. Where the competent authority allows commercial areas above and/or below the 1st storey, the total quantum of the floor area of commercial uses in the 1st and other storeys shall not exceed the maximum allowable floor area at the 1st storey 4 Commercial and 1. Mixed Commercial & Residential Commercial areas development (e.g. Shopping/Hotel/ Residential shall not be located Office & Residential) residential above areas. The type and quantum of commercial related uses and the total quantum of such commercial related uses shall be determined by the competent authority. The total quantum of commercial and related uses shall not, unless otherwise allowed by the authority competent exceed 40% of the maximum allowable floor area

5	Industrial and Manufacturing 1 (IM-1)	Clean and Light industrial factories with one or more predominant uses as mentioned in industrial development act.	The quantum of permitted ancillary uses shall not exceed 40% of the total floor area. The types of uses that may be allowed are subject to the evaluation of the competent authority and other relevant authorities.
6	Health Facilities	 Hospital Polyclinic Clinic/Dental Clinic Veterinary Clinic Nursing Home Medical suite 	Hospitals shall only be allowed subject to evaluation by the competent authority
7	Education and Research	 Kindergarten Primary School Secondary School Junior College Institute of Technical Education Polytechnic University Religious School/Institute Foreign System School Special Education School (e.g. School for the Disabled) 	
8	Public Administrative and Community Facilities	Public Administrative 1. Courts 2. Police Station 3. Fire Station 4. Prison 5. Drug Rehabilitation Centre/Halfway House 6. Reformative Centre Community Institutions 7. Association premises 8. Community Centre/Club 9. Community Hall 10. Welfare Home 11. Child Care Centre 12. Home for The Aged 13. Home for The Disabled	The specific institutional use that may be allowed for a site is subject to evaluation by the competent authority.

		 14. Workers' Dormitory Cultural Institutions 15. Television/Filming Studio Complex 16. Performing Arts Centre 17. Library 18. Museum 19. Arts Centre/Science Centre Concert Hall 	
9	Open Space/ Green Space	 Park Play-grounds (stadium, Play field etc.) Natural and underdeveloped resources areas (critical habitat areas, areas with natural beauty such as river bank or char, heritage sites etc.) Coastal Afforestation Swamp Area Natural Open Space 	Where additional sites for open space are deemed necessary, they may be secured by the competent authority. The notations used to delineate the park connectors may not show their precise boundaries which are subject to interpretation and determination by the competent authority.
10	Waterbody	 River Major Drain & Canal Reservoir Pond Pond (Conservation) 	The notations used to delineate the drainage reserves may not show their precise alignment which are subject to interpretation and determination by the competent authority and other relevant authorities. Additional drainage reserves may be secured by the competent authority for any locality as may be deemed necessary.
11	Road	 Roads (all category) Cycle tracks Footpath Special facilities for disabled and elderly people 	The notations used to delineate the route of the roads may not show their precise alignment, which is

subject to interpretation and determination by the competent authority and other relevant authorities. All roads including their junctions subject to widening and improvement, as may be determined by the competent authority. Buffers along and adjoining roads may be required to be set aside where deemed necessary by the competent authority. Additional road reserves may be secured by the authority competent for any locality as may be deemed necessary. **12 Transportation** 2. Bus, truck, taxi terminal Petrol Station/Kiosk 3. Rickshaw/tempo/ bike stand **Facilities** shall only be allowed 4. Launch/boat/steamer terminals subject to evaluation 5. Helipad/airport by the competent 6. Driving Circuit/Test Centre authority 7. Petrol Station 13 Public Services 1. ICT center Additional sites for and Utilities 2. Fire service such purposes for any 3. Sewerage treatment/disposal area locality may be 4. Waste disposal area secured by the 5. Water supply/ treatment plant competent authority 6. Rainwater harvest area where deemed 7. Power station necessary. 8. Graveyard/Cemetery/ Cremations area 9. Electrical Substation 10. Power Station 11. Sports Facilities (Gymnasium) 1. Agrotechnology Par 14 Agriculture 2. Aquaculture Farm (e.g. Aquarium fish) 3. Plant Nursery 4. Hydroponics Farm 5. Agriculture research/ experimental

	station	

Table 6: Mauza Plot list Under Specific Land Use Categories

SPZ Category	Mouza Name	JL No	Sheet No	Plot No						
Central Urban	Barabagi	44	2	405, 406, 407, 408, 409, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 554, 555, 556, 557, 558, 559, 560, 562, 563, 564, 567, 568, 569, 570, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 623, 627, 628, 654, 661, 672, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 707, 709, 890, 892, 893						
									7	2826, 2828, 2830, 2831, 2832, 2833, 3134, 3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3159, 3160, 3161, 3162, 3163, 3164, 3165, 3166, 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3189, 3190, 9076
	Char Para	40	3	2223						
	Chhota Nishanbari a Chak	41	1	150						
North Urban	Barabagi	44	2	151, 152, 153, 156, 157, 158, 159, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 376, 390, 391, 392, 393, 394, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 432, 433, 434, 435, 447, 510, 543, 544, 545, 549, 550, 551, 552, 553, 554, 569, 570, 571, 572, 573, 577, 581, 582, 585, 696, 702, 703, 704, 705, 706, 712, 713, 714, 715, 716, 717, 718, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 743, 744, 745, 746, 812, 885, 896						
	Char Para	40	3	2022, 2029, 2030, 2031, 2032, 2033, 2040, 2042, 2043, 2044, 2045, 2046, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2121, 2124, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2207, 2208, 2209, 2210, 2211, 2212, 2217, 2218, 2219, 2220, 2221, 2222, 2223						
	Chhota Nishanbari a Chak	41	1	1, 150						

SPZ Category	Mouza Name	JL No	Sheet	Plot No
Car	Name	NO	No	
North-East Urban Fringe	Barabagi		1	1, 59, 61, 65, 66, 67, 68
		44	2	151, 152, 153, 154, 155, 156, 159, 160, 161, 175, 176, 177, 178, 179, 180, 181, 182, 301, 305, 306, 307, 308, 371, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 414, 415, 416, 417, 418, 419, 585, 700, 701, 702, 706, 707, 708, 709, 710, 711, 712, 718, 719, 720, 721, 722, 723, 724, 725, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 812
			7	3150, 3151, 3152, 3153, 3154, 3155, 3156, 3157, 3158, 3159, 3160, 3161, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3233, 3234, 3239, 3240, 3241, 3242, 3243, 3244, 3245, 3246, 3247, 3248, 3249, 3250, 3251, 3252, 3253, 3254, 3255, 3256, 3257, 3258, 3259, 3260, 3261, 3262, 3263, 3264, 3265, 3266, 3267, 3268, 3269, 3270, 3271, 3272, 3273, 3274, 3275, 3276, 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314, 3317, 3319
	Char Para	40	2	1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1536, 1537, 1539, 1566, 1568, 1569, 1570, 1583, 1585
South Urban			3	2002, 2003, 2004, 2005, 2009, 2010, 2011, 2012, 2013, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2028, 2029, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2067, 2069, 2080, 2081, 2083, 2084, 2085, 2105, 2106, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2138, 2139, 2140, 2141, 2160, 2165, 2166, 2174, 2188, 2205, 2206, 2213, 2214, 2215, 2216, 2217, 2220, 2222, 2223,
	Barabagi	44	7	2801, 2805, 2806, 2808, 2809, 2810, 2811, 2812, 2813, 2814, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 2823, 2824, 2825, 2826, 2827, 2828, 2831, 2832, 2833, 2834, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 2842, 2843, 2844, 2845, 2846, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2854, 2855, 2856, 2857, 2858, 2859, 2860, 2861, 2862, 2863, 2864, 2865, 2866, 2867, 2868, 2869, 2870, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878, 2879, 2880, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2894, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 2909, 2910, 2911, 2912, 2913, 2914, 2915, 2916, 2917, 2918, 2919, 2920, 2921, 2930, 2932, 2933, 2934, 2935, 2936, 2937, 2938, 2939, 2940, 2941, 2943, 2944, 2945, 2946, 2947, 2950, 2959, 3134, 8888, 9071, 9072
	Chhota Nishanbari	41	1	150
	a Chak	••	2	442
South-East Urban Fringe	Barabagi	44	7	2888, 2911, 2913, 2917, 2919, 2920, 2921, 2922, 2923, 2924, 2925, 2926, 2927, 2928, 2929, 2930, 2931, 2932, 2933, 2934, 2935, 2938, 2939, 2940, 2941, 2942, 2943, 2946, 2947, 2948, 2949, 2950, 2951, 2952, 2953, 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961, 2962, 2963, 2964, 2965, 2966, 2967, 2968, 2969, 2970, 2971, 2972, 2973, 2974, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2995, 2996, 2997, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023, 3024, 3134, 3161, 3183, 3185, 3188, 3189, 3190, 3191, 3192, 3193, 3194, 3195, 3196, 3197, 3198, 3199, 3200, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3216, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3305, 3310, 3311, 3314, 3315, 3316, 3317, 3318, 3319, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3420, 3432, 3434, 3435, 3436, 3437, 3438, 3439, 3440, 3441, 3442, 3446, 3447, 3448, 3449, 3450, 3451, 3452, 3453, 3454, 3455, 3456, 3457, 3458, 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3474, 3475, 3476, 3477, 3478, 3479, 3480, 3481, 8888, 9077
			8	3502, 3503, 3504, 3510, 3511, 3512, 3513, 3514, 3515, 8888

SPZ Category	Mouza Name	JL No	Sheet No	Plot No
	Chhota Nishanbari a Chak	41	2	442
Upazila Town center	Barabagi	44	2	585, 610, 614, 618, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676
			7	2801, 2802, 2803, 2804, 2805, 2808, 2826, 2827, 2828, 2829, 2830, 2831, 2832, 2833, 3134, 3135, 3136, 3137, 3138, 3139, 3159, 3169, 3170, 3171, 3172, 8888, 9076,
	Chhota Nishanbari a Chak	41	1	150
West Urban Fringe	Barabagi	44	2	585, 647
	Char Para	40	3	2028, 2029, 2030, 2032, 2044, 2090, 2096
	Chhota Nishanbari a Chak	41	1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 144, 145, 146, 147, 148, 149, 150
			2	201, 202, 203, 204, 205, 206, 207, 208, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 261, 262, 263, 264, 265, 266, 267, 268, 438, 439, 440, 442

Source: PKCP Project, UDD, 2022

Recommendations for Particular Land Use Categories

Commercial Facilities

Commercial land use is the use of land for commercial purposes. The trading of goods and services at retail stores, the trading of goods and services at wholesale, the operation of financial institutions, and a wide range of services that are roughly categorized as "Business" are among these activities. Market-ready locations and existing markets are also included in commercial land. The business zone is designed to offer spaces that can operate without endangering nearby land uses. Despite the fact that only around 3.31 acres of land are actually used for this purpose under the current land use, the zone represents about 0.41 % of the entire potential urban region. This zone has been proposed with an area of 8.41 acres up to 2031.

Determination of Standard

According to the standard for Wholesale Market/bazar, 3 to 5 acres land is to be provided for every 10,000 population and 0.5 acre land for every 10,000 population for Retail market. An amount of 0.5 acre land for every 20,000 population for future Urban shopping complex/market, 1 to 1.25 acre land for cattle market and 1 acre land (per 25,000 population) for bank, hotel, garage and godown is recommended.

Recommendation / Forecast

The plan has proposed for a shopping complex/ city center of 0.57 acres. Necessary planning permission and design criteria will be provided by the Responsible Authority. Some lands may be allowed to use for other commercial purposes like bank, hotel and godown.

Residential Area

Taltali Potential Urban area current residential areas include homestead gardens, courtyards, and unoccupied land of households. The present residential land use is about 319 acres. However, the proposed land use for residential land is about 243 acres, and the mixed residential-dominated area is about 83.13 acres.

Determination of Standard

The standard recommended for residential development is 100-150 persons per acre (gross). It is recommended that 150-200 persons per acre for real estate or housing areas can be considered both for public and private sectors. No standard is being recommended for low-income group.

Recommendation/Proposition

According to the standard (100 persons per acre), 243 acres land will be needed up to the year 2031. The existing residential area (319 acres) is higher than the projected areas (243 acres) as homestead vacant lands and homestead gardens are included with the residential demarcation and calculation as well. Considering the scenario, an amount of 243 acres of land has been allocated for residential use only. The area proposed for such development should not exceed 20 acres. Rural environment should be maintained in the row housing areas. The Consultant also recommends and demarcates a public or private entrepreneurship housing area in the Urban Residential Zone.

Industrial

General industries are the Green and Orange A categories as per the Environment Conservation Rules, 1997. The general industrial zone is intended to provide locations, where general industrial establishments can be set up and function without creating hazards to surrounding land uses. It is likely that major industrial establishments will be located in the near future. The industrial zone has been proposed with an area of 0.86 acres. Since there is no industrial agglomeration in the town, the action area plan has proposed for some area of general agro based industry and small-scale industry.

Determination of Standard

According to the planning standard, 2.5 acres land is being allocated for every 10,000 people in case of general agro based and small-scale industry. An amount of 10 to 20 acres per Upazila headquarters or Paurashava is recommended for heavy industry and service industry.

Recommendation / Forecast

The recommends of planned formation including grouping of industries on different locations. Under industrial zone, it has particularly proposed land for small scale and agro based industries.

Administrative and Defense

Government Office zone covers all kinds of government offices including existing and proposed uses (e.g. proposed ward office) in the town. The existing and proposed government

offices are Upazila Tahsil Office, Upazila Agriculture Office, Police Station, Sub-registry Office, T & T Office, and Upazila Parishad Office. Total area under this use is proposed for 16.71 acres.

Determination of Standard

According to the standard for government office land, 15 acres of land is to be provided for the Upazila, 3 to 5 acres per future Paurashava Office, and 2 to 5 acres per Union. Total required land for administration stands at 8.90 acres. New government office land will be needed and it is being proposed.

Recommendation/Forecast

The Potential Urban Area is lacking important government offices. Vertical expansion of the existing government offices is required

Transport Network

In total, 13.7 acres or 0.7% of the Taltali Urban Area (including existing circulation network) area has been proposed for circulation network for 2031. Road network including primary, secondary, tertiary and access road falls under this category in Taltali Urban Area. It shows development proposal for Circulation Network.

Transportation Facilities

Under transportation facilities, both transport and communication services are considered. For Taltali Urban Area, this category includes bus terminal/ stand, filling station, garage, passenger shed, ticket counter, transport office etc. At present, there is no bus and truck terminal in Taltali Urban Area.

Determination of Standard

According to the standard for administrative land, 1 acre of land is to be provided for a bus stand which might serve 15,000-25,500 population, 1 acre of land is to be provided for a bus terminal/ stand which will serve 50,000 people. An amount of 0.25 acre land is required per motor cycle stand, rickshaw stand. Total required land for Transportation Facilities stands at 13.7 acres.

Recommendation/Forecast

A bus terminal with an area of about 4 acres is proposed in urban area.

Public Services and Utilities

Community facilities include Community Centre, Graveyard/ Burial Site/ Cremation Ground, Electric Sub-station, Water Supply Pump, Post Office, T&T Office, Police Outpost, Public Library, Eidgah, Mosque/Church/Temple, Fire Service Station, Club, etc. The existing land area under such uses is about 5 acres and proposal is made for new 13.68 acres of land for future use in Public Services and Utilities.

Utility Services

A number of utility establishments are required in a town to run services properly. Utility services include Overhead Tank, Power Office/ Control Room, Public Toilet, Sewerage Office, Waste Disposal Site, Water Pump House, Water Reservoir, Water Treatment Plant, Waste Transfer Station etc.

Determination of Standard

The planning standard suggests for allocating 0.5 acre of land per 20,000 people for community centre, Graveyard/ Burial Site/ Cremation Ground and Eidgah. An area of 0.5 acre land per 20,000 people is prescribed for Mosque/ Church/ Temple, Post office and T&T

Office. For Fire Service Station, 0.5 acre land per 20,000 people is recommended. For Upazila Administrative Headquarters, 1 acre per 20,000 people and an area of 3–5 acres for the Upazila Police Station are recommended. In total, an amount of 26.1 acres of land is required for fulfilling these demands up to 2031.

Recommendation/Proposition

The plan recommends 1 new graveyard with 4.63 acres of land, community facilities about 3.36 acres. Areas for Mosque/Church/Temple, Community Center, Cultural Center, ICT Center etc. are proposed here. One Rakhain Cultural Center and one open theater is proposed with an area of 0.22 acres and 0.23 acres respectively. The consultant has earmarked some area for utility services like, solid waste disposal site with an area of 4.77 acre. There will be also one waste transfer stations. One water treatment plant is proposed with an area of 3 acres.

Education and Research

Educational and Institutional area refers to mainly educational institutions and other social service facilities and conditional uses. The total area under this use has been determined as 10.97 acres (0.54 % of the Urban Area). The plan also recommends for strengthening the existing institutional status through vertical expansion and conversion of non-government institutions.

Determination of Standard

According to the standard for nursery/ kindergarten, 1 unit with 0.5 acres of land is to be provided for every 10,000 population and for primary school, 1 unit with 2 acres of land is to be provided for every 5,000 population. The plan has estimated a population of 13,000 for the year 2031. Considering projected demand, 4.29 and 34.33 acres of land will be required respectively for nursery/ kindergarten and primary school up to the year 2035. Thus, new nursery and primary schools are required.

According to standard, 5 acres of land may be provided for every 20,000 population for one secondary school. Therefore, as per standard the planning area needs (85,819*5 acres / 20,000) 21.45 acres land for secondary school up to the year 2035. Thus, new high schools are required.

According to standard, 10 acres of land may be provided for every 20,000 population for one college. Therefore, as per standard the planning area needs (85,819*10 acres/ 20,000) 21.45 acres land for secondary school up to the year 2035. Thus, new college is required.

An important component for the urban area is vocational training as people living in the Upazila can be benefitted from its services. Multi-dimensional training may be offered through the centre. People are being benefited directly and may prepare them as technical persons obtaining training from vocational centre. At present, there is no vocational training center in the urban center. The prescribed standard for vocational training center is 5 to 10 acres for Upazila.

Recommendation/Proposition

According to the standard and considering different planning aspects, 1 new primary school with an area of 0.12 acre, 2 new secondary/ high schools with an area of 1.82 acres are proposed for the planning area. Besides, with increasing enrollment, existing high schools may be expanded horizontally or vertically. Besides, with increasing enrollment, existing high schools may be expanded horizontally or vertically.

Health Services

The zone of health care facilities is intended to provide locations, where health facilities including Upazila Health Complex, maternity clinics, and other health facilities can be set up and function without creating hazards to surrounding land uses. This zone has been proposed with an area of 47.39 acres designated up to 2031, which is only 1.2% of the total urban area. Community Health Care Center will be available at each side of urban area with other facilities.

Urban Area Plan of the Potential Area within Taltali Upazila

Determination of Standard

The prescribed standard for health facilities are 10 to 20 acres for Upazila Hospital and 1 acre per 5000 population for Health center/ Maternity clinic. According to the standard, up to the year 2035, 6.36 acres of land will be needed for Health center/ Maternity clinic.

Recommendation/Proposition

Considering different planning aspects, three health centers are proposed at 3 unions with an area of 0.96 acres.

Open Space

Recreational and sport facilities without or with minimum building structure. This zone has been provided to meet the active and passive recreational needs of the people and at the same time, conserve the resources as per Playfield, Open Space, Park and Natural Water Reservoir Conservation Act, 2000. Moreover, green space is proposed alongside the main roads. The total area earmarked for this zone stands at 119.47 acres.

Determination of Standard

According to the standard for recreational facilities, 0.5 acre of land is to be provided for every 20,000 population for cinema/theatre, 5 to 10 acres land for stadium/sports complex and 1 acre land per 10,000 population for a neighborhood/ community park. For the projected population, total 39.20 acres of land is required for neighborhood/ community parks up to the year 2035. The study team recommends 27.64 acres for Children Park/ Central Urban Park and 2.36 acres for community parks.

Recommendation/Proposition

The study team recommends one park with an area of 2.81 acres, 1 play fields / grounds of 1 acre.

CHAPTER FOUR: TRANSPORTATION AND TRAFFIC MANAGEMENT GUIDELINE

This plan shall consist of the inventory and analysis of existing and proposed circulation systems, patterns and any other modes of transportation in co-ordination with the land use plan. The focus of local concern will be municipal streets and roads, pedestrian circulation, local facilities, local bicycle paths, parking and other facilities providing or supporting the people and goods within the Jurisdiction. This focus will also include associated land such as terminals, stations and other shipping facilities.

Better transportation accessibility to study area is needed dreadfully to improve its connectivity within the potential urban area and with the remaining parts of the Upazila as well as country. Better accessibility within the tourist spots can enhance the tourism sector of the country which will have a greater impact on tourism and the economic sector in Bangladesh. In addition, improvement of walkability within the tourist spots is necessary to provide safety and comfort to local and international tourists.

For this, it is necessary to understand the present state of the transportation system based on which a sustainable transportation system can be built for the future. Therefore, a thorough traffic study of the existing road network is imperative. This will shed light on the recent state of transportation as well as provide information about its pros and cons and possibilities for future development. Through this transportation survey and studies, an improved guideline for transport system will be proposed.

4.1 Purpose and Objectives

The goal of the guideline for the transportation system should be to provide a sustainable transportation system that meets the needs of the community by accommodating the movement of people, goods, and riches at an optimum level of safety, economy and efficiency.

4.2 Transportation Survey Findings

From the Household survey, it is observed that, on average, 4.37 trips per household are generated within the Taltali area per day among which 78.7% 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. People face many problems during the rainy season due to bad condition of the roads. From the Growth Center Survey at Taltali Bazar, it is inspected that traffic congestion is at a minimum level except hat dayswhich means as roads capacity is less to support vehicles and businessmen from the surrounding area. The survey also unveils that toiler 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.

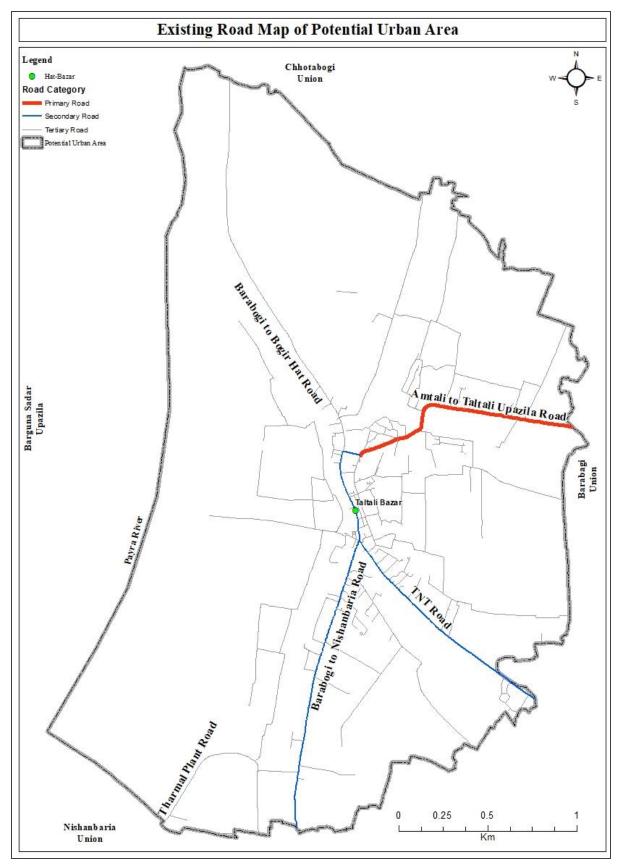


Figure 7: Existing Road Network of the Potential Urban Area

4.3 Existing Road Network

The road network of Taltali Upazila is primarily composed of Village roads, Union Roads and only one Upazila Road that connects the area with other parts of the country.

The most significant road that passes through Taltali Upazila, which runs from Kuakata to Kalapara via Patuakhali. This highway passes through the northern part of Taltali Upazila and connects it with other nearby areas. These roads are typically unpaved and may not be well-maintained, making travel difficult during the rainy season.

Table 7: Functional Category of the Existing Road Network

Functional Category	Length (Km)	Length (Sq.m)
Primary Road	0.002481	2480
Secondary Road	0.040733	40733
Tertiary Road	0.067125	67124
Total		110337

4.4 Proposed Road Network

Comprehensive and efficient transportation systems with good inter linkages are essential to ensure Taltali Upazila Urban Area position as a modern city and to serve the administrative, financial and commercial center of the country. The city must be able to provide an efficient and equitable transport infrastructure which will allow all members of the community equal access so that everyone can enjoy the maximum benefits of urban life. Current inefficient transport system of the urban area is causing huge socio-economic losses which can become a major handicap to the national development by losing competitiveness in the world.

Table 8: Proposed Functional Category of Roads for development

Road Category	Proposed Width	Length (km)
Primary Road	80	3.90
	60	4.30
Secondary Road	40	8.89
	20	22.23
Tertiary Road	12	23.52
Total		62.84

4.5 Future Plan and Direction

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 Taltali Upazila economy. Roads 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;

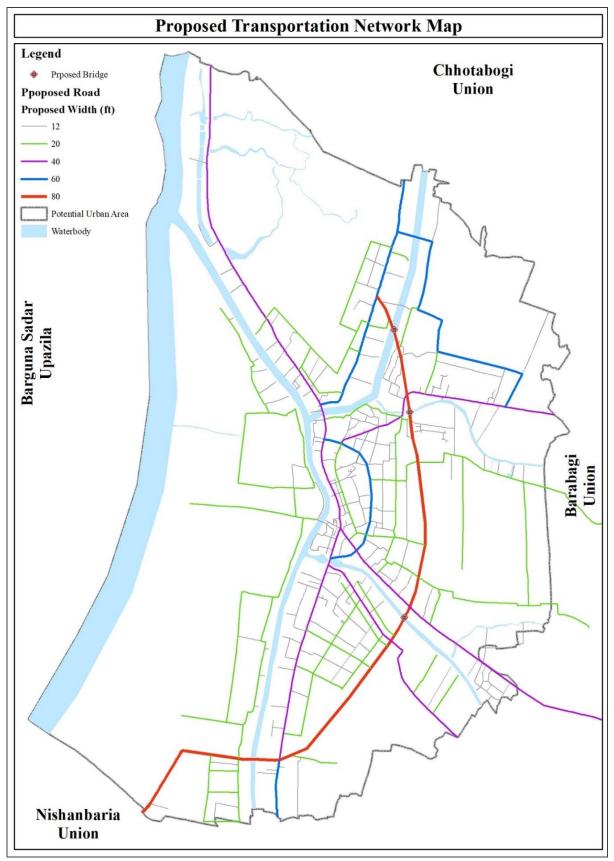


Figure 8: Proposed Road Network Map of the Potential Urban Area

CHAPTER FIVE: URBAN DRAINAGE AND ENVIRONMENT MANAGEMENT PLAN

This chapter states about goals and objectives, and methodology of Drainage Development Plan. An inventory of the existing natural drainage system of Taltali Potential Urban Area 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.

5.1 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 Potential Urban Area.
- 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 Potential Urban Area plan.
- To present planning options for drainage of the future Potential Urban Area 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.

5.2 Delineation of Drainage Sub-Watershed and Outlets

Drainage catchments for the urban area are delineated using digital elevation model (DEM) with spatial resolution of 1m. However, this DEM is resampled into 10m spatial resolution for the processing of drainage catchment delineation. The Sub-watershed analysis has been conducted using ArcGIS spatial analysis and Archydro extension tools.

Watershed analysis requires fill the sinks (depression) of Taltali 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 raise the value of a cell identified as a sink cell to match the elevation of its downhill neighbor.

The 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. Flow direction map of Taltali Potential urban area is shown in Figure 9.

Flow direction map is used for flow accumulation map. The flow accumulation is generated by addressing each cell of the DEM, counts how many upstream cells contribute to flow through the given cell. Flow direction and accumulation maps are then used to delineate the stream network. Figure 10 shows flow accumulation map of Taltali Potential urban area.

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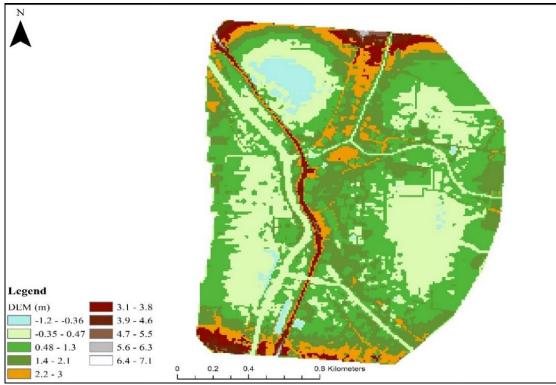


Figure 9: Digital Elevation Model (DEM) of Taltali Potential Urban Area

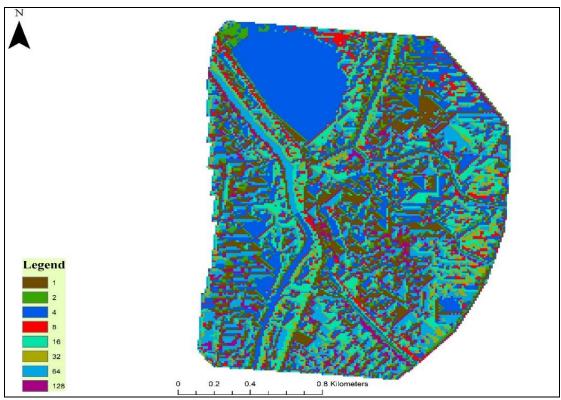


Figure 10: Flow direction map of the Potential Urban Area

Source: PKCP Project, UDD, 2022

The stream network can be divided into segments which will determine the outlets of the basin. The watershed divide is assumed as a line whose flow accumulation value is zero and

those cells, which have a flow accumulation value greater than a threshold value provided by the user, are assumed as stream channel or river. After applying trial and error methods, the threshold value of 6% of the longest flow path was used to determine the drainage network.

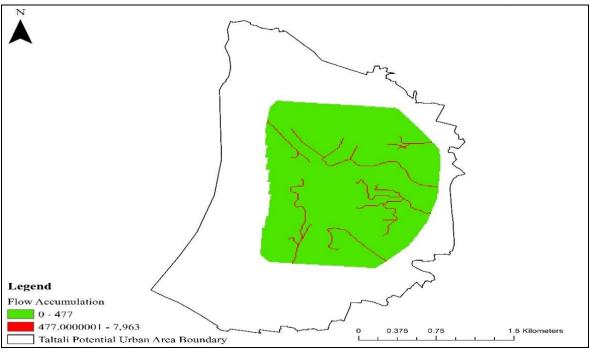


Figure 11: Flow accumulation map of Taltali Potential Urban Area

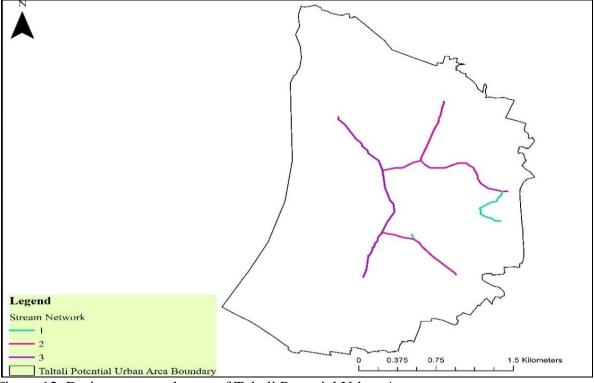


Figure 12: Drainage network map of Taltali Potential Urban Area

An extensive field survey in Taltali potential urban area was done to check the accuracy of the delineated drainage network. However, some major corrections of delineated drainage network are made on the basis of field report information.

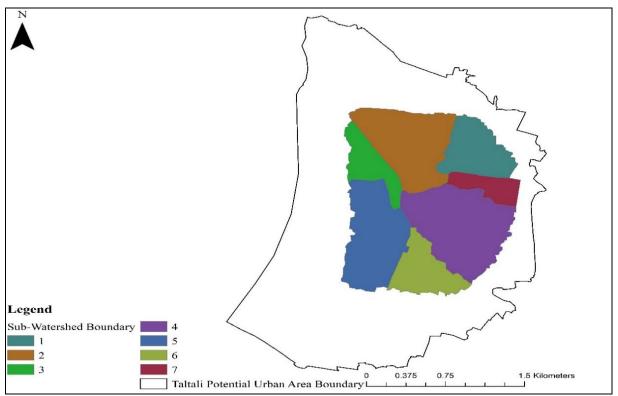


Figure 13: Sub-catchments map of Taltali Potential Urban Area

Source: PKCP Project, UDD, 2022

Based on the above threshold value and field report information, there are 7 sub-catchments and 1 outlet found in Taltali Urban area. Sub-catchments map of the potential urban area is shown in the below figure. Based on the sub-catchment maps and the drainage pattern, the outlets of the drainage network have been identified. In Taltali potential urban area, the main drainage outlet location is the western side of 500m away from the local wood market of Nishanbaria union under Taltali Upazila.

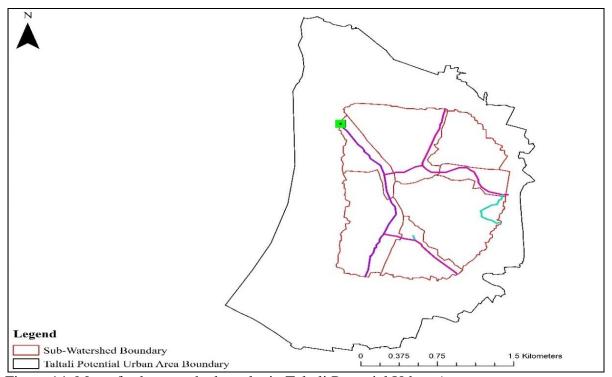


Figure 14: Map of sub-watersheds outlet in Taltali Potential Urban Area

CHAPTER SIX: URBAN SERVICES AND UTILITY PLANS

This Chapter describes the urban basic services development proposals for future development of the urban area. The proposals have been made at the urban level, that is, the area under the urban area plan. The development proposals deal with the basic urban services, like, water supply, drainage, sanitation, solid waste, telecommunication, electricity and gas, community facilities, education and health.

Existing Public Services and Utilities

Taltali is comparatively a very backward area. It has shortage of all type of public services and utility facilities. According to the physical feature survey following facilities are found for the potential urban area of Taltali.

Table 9: Existing Facilities of the Potential Urban Area

Facilities	Nos.
Administrative Building	9
Health Center	6
Education Institute	9
Deep Tube well	402
Bridge/ Culvert	43
Hat/ Bazar	1
Community Tap	14
Public Toilet	1
Informal Waste Dumping Site	14

6.2 Proposed Urban Facilities

Based on the demand and land calculation several urban facilities are proposed for the future development. The list is below:

Table 10: Proposed Facilities of the Potential Urban Area

Facilities	Nos.	Facilities	Nos.
Auto-Rikhshaw Stand	4	Mosque	1
Bus Terminal	1	Open Theater	1
Central Graveyard	1	Park	1
Central Play Ground	1	Play Ground	1
City Center	1	Primary School	1
Community Center	2	Rakhain Cultural Center	1
Boat Ghat	1	Waste Disposal Site	1
Health Center	3	Waste Dumping Site	1
High School	2	Water Treatment Plant	1
ICT Center	2	Library	1

Source: PKCP Project, UDD, 2022

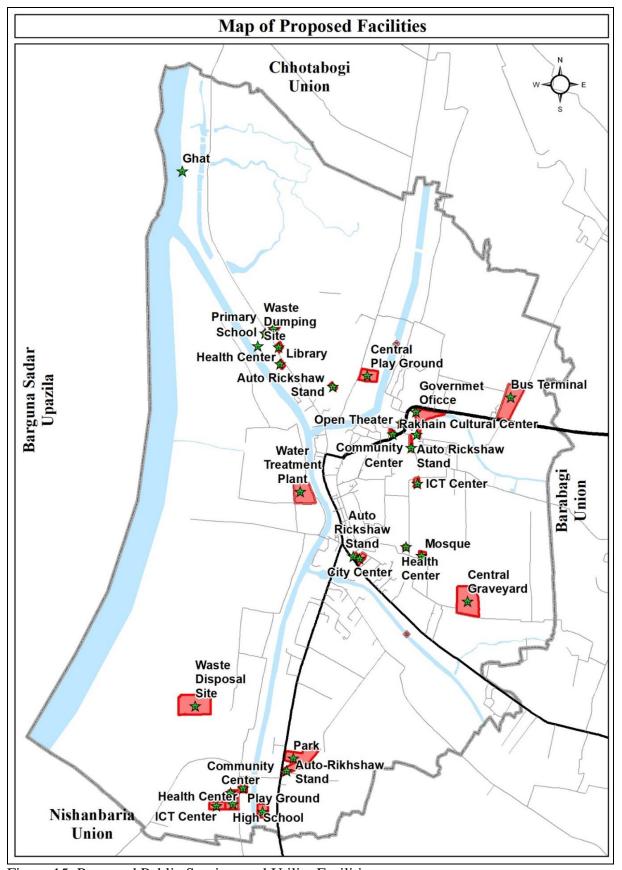


Figure 15: Proposed Public Services and Utility Facilities

6.3 Urban Water 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.

6.4 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.

6.5 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 (eg, in environment, power requirement). 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.

6.6 Drinking Water Safety

Some ponds are proposed to be reserved for drinking water as there are shortage of safe drinking water. This is total about 22 acres' area.

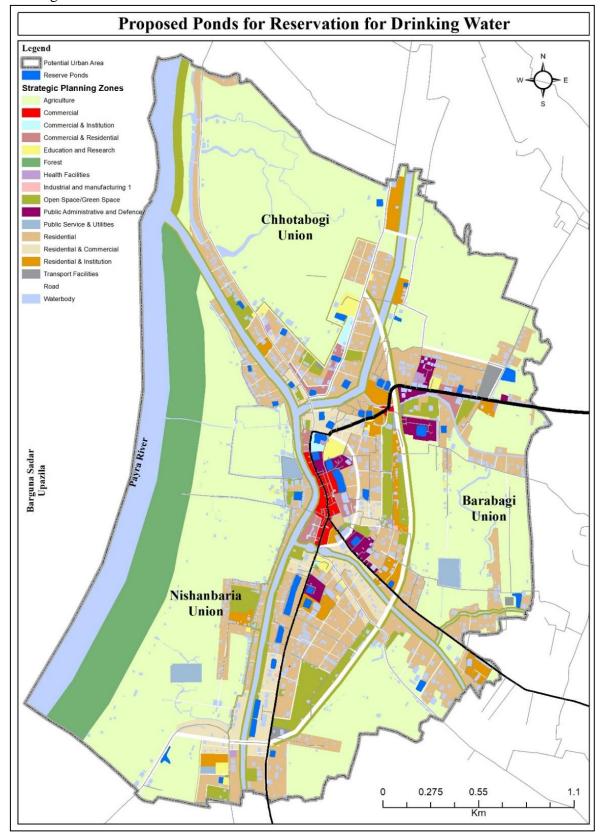


Figure 16: Proposed Ponds for Water Reservation

CHAPTER-7: CONCLUSION

Preparation of the urban area plan is not an end in itself, rather it is an attempt to the beginning of a phase of development of an undeveloped area aspiring for development. Planning is far easier than development. In a developing country like Bangladesh, execution of spatial development plan is really a challenging task for any local government that so vastly rely on the central government for development budget allocation. Amid a host of other priority problems, the central government is often helpless in providing resources for small town's development, where problems are considered less important than those in larger cities. Keeping this constraint in view the local urban governments in smaller towns should emphasize on enhancing the capacity of generating their own resources. Besides, avenues must be searched to recover costs of development from the beneficiaries either directly or indirectly. Direct recovery can be charging development charges or taxes in various forms. Indirectly people can be involved project planning and implementation. This approach of development will benefit in two ways, first, it will create belongingness among people about development of their own areas and second, it will save public money required for development. Land can be procured from land owners for construction of local standard roads. This kind of participatory approach to development would directly benefit the land owner. Without a strong planning section, the plans will never come true. There must be someone to take care of the plans and development control effectively. Finally, the potential urban area must give due importance to this plan document to streamline its future development. It must follow the plan for any development, otherwise the plan will lose its credibility and one day it will turn into waste paper which will simply accentuate the urban problems.

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	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) \	Urban-Nature Reserve	
General Store	Utility Lines	
Grocery Store	Woodlot	
High School	Children's Park (Must Have Parking)	
Household Appliance and Furniture Repair	ATM Booth	
Housing For Seasonal Firm 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
Photocopying and Duplicating Services (No	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	

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	Tennis Club
Bus Passenger Shelter	Guest House
Graveyard \ Cemetery	Slaughter House
Coffee Shop \ Tea Stall	Static Transformer Stations
Correctional Institution	Tourist Home or Resort

^{*}Permission of Neighborhood Center Facilities in absence of formal neighborhood should be subject to Land use Permit Committee

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

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	Sawmill, Chipping and Pallet Mill	
Freight Transport Facility	Shelter (Passers By)	
Police Box \ Barrack	Television, Radio or Electronics Repair (No	
Fire \ Rescue Station	Transmission Lines	
Grocery Store	Truck Stop & Washing or Freight Terminal	
Household Appliance and Furniture Repair	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

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	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 Salas & Sarriago	Smorting Coods and Toyle Color
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

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
L	<u> </u>

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	Static Electrical Sub Stations
Cottage	Transmission Lines
Crematorium	Utility Lines

Dairy Firming	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

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	Garden Center or Retail Nursery
Goldsmith Etc.)	·
Research organization (Agriculture	Emergency Shelter
\ Fisheries)	
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	Grocery Store
Structure	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	Photocopying and Duplicating Services
Conference Facilities, Convention	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
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	Warehousing
Height Community Center	Woodlot
Condominium or Apartment	Children's Park
Correctional Institution	ATM Booth
	Water Pump \ Reservoir
Courier Service	* '
Courier Service Cyber Café	Social Forestry

Doctor \ Dentist Chamber	Rickshaw \ Auto Rickshaw Stand
Employee Housing	
Fabric Store	

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	Freight Transport Facility
Amusement and Recreation (Indoors)	Gaming Clubs
Beauty and Body Service	Garages
Broadcast Studio \ Recording	Garden Center or Retail Nursery
Audience)	Commercial Office
Building Maintenance \ Cleaning Services,	Project Office
Outside Storage	Government Office
Building Material Sales or Storage (Indoors)	Hotel or Motel
Graveyard \ Cemetery	Household Appliance and Furniture
Coffee Shop \ Tea Stall	Service
Computer Maintenance and Repair	Indoor Amusement Centers, Game Arcades
Computer Sales & Services	Indoor Theatre
Concert Hall, Stage Shows	Lithographic or Print Shop
Conference Center	Market (Bazar)
Construction Company	Health Office, Dental Laboratory, Clinic or
Construction, Survey, Soil Testing Firms	Musical Instrument Sales or Repair
Cottage	Optical Goods Sales
Counseling Services	Outdoor Café
Craft Workshop	Outdoor Fruit and Vegetable Markets
Crematorium	Painting and Wallpaper Sales
Plantation (Except Narcotic Plant)	Paints and Varnishes
Cultural Exhibits and Libraries	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
Sporting Goods and Toys Sales	Refrigerator or Large Appliance Repair
Sports and Recreatio Club, Firing	Restaurant
Telephone Exchanges	Retail Shops \ Facilities
Television, Radio or Electronics Repair (No out Outside Storage)	

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	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

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

lucation and Research Zone
Flowers, Nursery Stock and Florist Supplies
Gallery \ Museum
Garages
Indoor Theatre
orphanage
Outdoor Café
Parking Lot
Pipelines and Utility Lines
Postal Facilities
Psychiatric Hospital
Fast Food Establishment \ Food Kiosk

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	Photocopying and Duplicating Services
Structure	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	Shelter (Passers By)
Height	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	

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	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

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 Zon	ne
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 Firming	Transmission Lines
Deep Tube Well	Utility Lines

Shallow Tube Well	Woodlot
Irrigation Facilities (Irrigation Canal, Culvert,	Social Forestry
Temporary Structure (Agricultural)	
Animal Shelter	

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	

Landuse Conditionally Permitted

Table A 20: Land Use Conditionally Permitted

Conditionally permitted uses under open space	
Communication Tower Within Permitted	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:
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.

ANNEXURE-B: PROJECT TEAM

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