Payra-Kuakata Comprehensive Plan Focusing on Eco-Tourism Urban Area Plan: 2021-2031

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বাংলা

অতিরিক্ত সংখ্যা কর্তৃপক্ষ কর্তৃক প্রকাশিত

বৃহস্পতিবার, আগস্ট ২৯, ২০২৪

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার গৃহায়ন ও গণপুর্ত মন্ত্রণালয় পরিকল্পনা শাখা-৩

প্রজ্ঞাপন

তারিখ: ০৬ ভাদ্র ১৪৩১ বঙ্গাব্দ/ ২১ আগস্ট ২০২৪ খ্রিষ্টাব্দ

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ABBREVIATION AND ACRONYMS

AC/ac	Acre
PKDA	Payra Kuakata Development Autghority
CBD	Central Business District
CUA	Core Urban Area
DMDP	Dhaka Metropolitan Development Plan
EPZ	Export Processing Zone
EUA	Existing Urban Area
GC	Growth Centre
GIS	Geographic Information System
GoB	Government of Bangladesh
WDB	Water Development Board
LGED	Local Government Engineering Department
MISP	Multi-Sector Investment Plan
NUA	New Urban Area
UAP	Urban Area Plan
R&HD	Roads and Highway Department
DC	Deputy Commissioner
ROW	Right of Way
ToR	Terms of Reference
Nos	Numbers
PWD	Public Works Department
UDD	Urban Development Directorate
UFA	Urban Fringe Area
UA	Urban Area

GLOSSARY

Bustee	:	Dense slum community, territorially defined by the influence of a leader,
		with poor environmental and living conditions
Khas	:	State owned land not specifically allocated to any government agency
Paurashava	:	Municipality
Kucha	:	Impermanent structure/building materials
Pucca	:	Permanent Construction/Structure using bricks, cement etc
Shahar	:	Smaller urbanized area/secondary town
Slum	:	General term, also used to designate urban poor renting private land
Squatter	:	Unauthorized inhabitant of public/hovernment land
Mouza	:	Definite area demarcated and identified by the revenue department with a
		jurisdiction list number. It may be populated or de populated
Village	:	Smallest geographic area of rural area. A village may be same as mouza or
		there may be more than one village in a mouza. It is always populated
Ward	:	Smallest local administrative (local govt. unit) unit of urban area. For the
		operational convenience municipalities area divided into three or more
		wards. The ward boundaries are specified by gazette. A ward has a ward
		parishad (council)
Mahollah	:	Smallest identifiable area with settlements of homogeneous group of
		people.
Para		Smallest identifiable area with settlements of indigenous group of people.
Union	:	Smallest local administrative unit (local govt. unit) of rural area which is
		composed of mouzas and villages. A union has a union parishad
Upazila/Thana	:	Sub-district Administrative Area
Zila/District	:	District Administrative Area
Dighi	:	Larger ponds/ tanks mostly excavated in the past by influential personnel
		and rulers

ABSTRACT

The Barguna Paurashava Urban Area Plan Report presents a comprehensive framework for the development and sustainable growth of Barguna Paurashava, an urban center located in the Barguna district of southwestern Bangladesh. The report addresses critical planning issues, including population growth, infrastructure development, environmental sustainability, disaster resilience, economic diversification, social inclusion, and heritage preservation.

The plan focuses on accommodating the rapid population growth and urban expansion through the provision of adequate housing, infrastructure, and public services. It emphasizes the development of transportation networks, utilities, and social infrastructure to improve connectivity and enhance the quality of life for residents. Environmental sustainability is a key consideration, with measures in place to protect natural ecosystems, promote sustainable practices, and mitigate the impacts of climate change.

To ensure disaster resilience, the plan incorporates strategies for risk sensitive land use plan, and climate change adaptation measures. Economic diversification and job creation are prioritized through the attraction of investments, support for local businesses, and promotion of emerging sectors. Social inclusion and community development are addressed through inclusive development practices, addressing social inequalities, and encouraging community participation.

The plan emphasizes the preservation of Barguna Paurashava's cultural heritage and unique identity, including the conservation of historical sites, traditional architecture, and cultural landmarks. The report outlines the coordination with regional planning authorities, ensuring alignment with regional development goals and infrastructure plans.

By implementing the Barguna Paurashava Urban Area Plan, the aim is to create a vibrant, resilient, and sustainable urban centre that caters to the needs and aspirations of its residents. The plan's holistic approach, incorporating social, economic, environmental, and cultural considerations, seeks to foster an inclusive and liveable urban environment for present and future generations in Barguna Paurashava.

1.1 Introduction:

The Barguna Paurashava Urban Area Plan envisions a vibrant and sustainable future for Barguna Paurashava, a dynamic urban centre located in the southwestern region of Bangladesh. This comprehensive plan aims to harness the potential of Barguna and shape it into a modern, liveable city that caters to the needs and aspirations of its residents while preserving its unique cultural heritage and natural beauty.

With a rich history and diverse population, Barguna Paurashava stands as an administrative and economic hub within the Barguna district. The urban area plan sets forth a strategic vision that harmoniously blends nature, culture, and progress. It embraces the principles of sustainability, recognizing the importance of responsible resource management, environmental preservation, and resilience in the face of climate change.

The plan encompasses various dimensions of urban life, including infrastructure, housing, transportation, economy, social services, and cultural preservation. By integrating these elements, it strives to create a well-planned and well-connected urban environment that enhances the quality of life for residents and attracts investment and economic growth.

Central to the Barguna Paurashava Urban Area Plan is community participation and stakeholder engagement. The plan acknowledges the value of local knowledge and expertise, aiming to involve residents, community groups, and relevant stakeholders in the decision-making processes. This inclusive approach ensures that the resulting urban development truly reflects the desires and needs of the people, fostering a sense of ownership and shared responsibility.

The plan sets clear goals and objectives, focusing on sustainable development, improved infrastructure, economic prosperity, housing affordability, cultural preservation, and transparent governance. It envisions a future where Barguna Paurashava thrives as a model urban center, offering a high quality of life, economic opportunities, and a strong sense of identity and belonging for its residents.

As Barguna Paurashava moves forward, the Barguna Paurashava Urban Area Plan serves as a roadmap for progress, guiding policymakers, urban planners, and developers in making informed decisions that align with the vision and goals of the urban area. By embracing this plan, Barguna Paurashava can realize its full potential, becoming a shining example of sustainable urban development in Bangladesh, where nature, culture, and progress coexist harmoniously.

Chapter-1 explains the Background of the Urban Area Plan. From Chapter-2 reflects the critical planning issues to be considered, chapter 3 describes population projection and planning standards, Chapter-4, this

Report translates the Policies of the Structure Plan into guidelines, actions plans and programs for the management of urban development of Barguna Paurashava for the first ten years, and in a few cases beyond that. Chapter 5 contains the transportation plan and chapter 6 contains the word action plan. Implementation and coordination scheme has been discussed in chapter 7. And finally, chapter 8 contains concluding remarks.

The Urban Area Plan covers an area of approximately 18.2 sq-km or 4500 acres. Barguna Paurashava Area has been separated into the following Special Planning Zones, Core Urban Area (CUA)/District Urban Centre, Urban Area (UA), Urban Fringe Area (UFA), New Urban Area (NUA). Those SPZ areas have been sub-divided farther based on specific characteristics, each of them needs to be examined and actions related to promotion need to be identified.

1.2 Vision:

The vision of the Barguna Paurashava Urban Area Plan is to transform Barguna into a modern, sustainable urban center that harmoniously blends nature, culture, and progress. It envisions a vibrant and liveable urban environment that caters to the needs and aspirations of its residents while preserving the unique cultural and natural heritage of the area.

1.3 Mission:

The mission of the Barguna Paurashava Urban Area Plan is to guide the development and growth of Barguna through strategic planning and implementation. It aims to create a well-planned urban framework that fosters community well-being, economic prosperity, and environmental sustainability. The mission is to ensure that the urban area is equipped with necessary infrastructure, services, and amenities for a high quality of life.

1.4 Objectives of the Plan:

The Barguna Paurashava Urban Area Plan encompasses both development promotion and development control objectives to guide the growth and ensure sustainable development of Barguna Paurashava. Here are the key objectives in each domain:

1.4.1 Development Promotion Objectives:

1. Economic Growth: Promote economic development by attracting investments, fostering entrepreneurship, and supporting local businesses. Encourage the diversification of the economy through the development of emerging sectors and the expansion of existing industries.

2. Infrastructure Development: Enhance the urban infrastructure of Barguna Paurashava, including transportation networks, utilities, and public facilities. Improve connectivity within the urban area and with neighboring regions to facilitate economic activities and improve the quality of life for residents.

3. Housing and Livability: Facilitate the provision of affordable and quality housing options to cater to the needs of the growing population. Improve access to basic amenities, including healthcare facilities, educational institutions, and recreational spaces, to enhance the overall liveability of Barguna Paurashava.

4. Environmental Sustainability: Incorporate sustainable practices and environmental considerations into development activities. Promote resource conservation, waste management, and the preservation of natural ecosystems to ensure the long-term environmental sustainability of Barguna Paurashava.

1.4.2 Development Control Objectives:

1. Land Use Planning: Regulate land use to ensure a balanced and efficient distribution of different land uses within Barguna Paurashava. Control and manage the conversion of agricultural land, protect environmentally sensitive areas, and designate suitable zones for residential, commercial, industrial, and recreational purposes.

2. Building Regulations: Enforce building codes and regulations to ensure safe and structurally sound construction practices. Control the quality and design of buildings, considering factors such as safety, aesthetics, and compliance with urban design guidelines.

3. Environmental Protection: Safeguard natural resources, including forests, water bodies, and coastal areas, through appropriate land-use controls and environmental regulations. Control pollution and promote sustainable waste management practices to preserve the ecological balance of Barguna Paurashava.

4. Heritage Conservation: Protect and preserve the cultural and historical heritage of Barguna Paurashava. Implement measures to conserve heritage sites, traditional architecture, and cultural landmarks, ensuring their long-term preservation for future generations.

These development promotion and development control objectives within the Barguna Paurashava Urban Area Plan are designed to guide the sustainable growth and balanced development of the urban area. By promoting economic prosperity, enhancing infrastructure, improving livability, and enforcing appropriate regulations, the plan aims to create a vibrant, inclusive, and environmentally sustainable urban center in Barguna Paurashava.

1.5 Location of Barguna Paurashava:

Barguna Paurashava is a vibrant urban area located in the Barguna district of southwestern Bangladesh. Positioned along the Bay of Bengal, it enjoys a coastal setting that contributes to its charm and economic potential. The geographic coordinates of Barguna Paurashava are approximately 22.1563° N latitude and 90.1126° E longitude. Surrounded by the Bay of Bengal to the south, Barguna Paurashava benefits from picturesque views and access to the sea. Its strategic location fosters trade, transportation, and cultural exchanges with neighboring regions such as Patuakhali, Jhalokati, Barisal, and Pirojpur. The coastal environment supports diverse economic activities, including agriculture, fishing, and the potential for tourism due to sandy beaches and proximity to the renowned Sundarbans mangrove forest. Furthermore, Barguna Paurashava serves as the administrative center of the Barguna district, facilitating effective governance and public services. The geographic advantages, coupled with its administrative significance, contribute to the dynamic and thriving nature of Barguna Paurashava. These factors position Barguna Paurashava for sustainable growth, cultural vibrancy, and economic prosperity in the future. Map 1.1 represents the location Barguna Urban Area.

1.6 Regional Significance of Barguna Paurashava:

Barguna Paurashava, nestled within the Barguna district of southwestern Bangladesh, holds a significant regional position as an urban center. Its strategic location and diverse characteristics contribute to the overall development and dynamics of the broader southwestern region. Let us explore the regional perspective of Barguna Paurashava and its impact on the surrounding areas.

As the administrative hub of the Barguna district, Barguna Paurashava plays a crucial role in governance and decision-making within the region. It serves as a center for coordination and administration of various governmental functions, ensuring effective governance and service delivery for the district's residents.

The economic significance of Barguna Paurashava extends beyond its boundaries. The urban area contributes to the overall economic growth of the Barguna district through its diverse economic activities. Agriculture, fisheries, small and medium enterprises, and emerging industries are key sectors that drive economic prosperity not only within Barguna Paurashava but also in the surrounding rural areas. The economic interactions and trade linkages between Barguna Paurashava and neighboring districts, such as Patuakhali, Jhalokati, Barisal, and Pirojpur, foster regional economic integration and development.

Barguna Paurashava serves as a vital node for trade and connectivity in the southwestern region. Its strategic location facilitates commercial activities and trade flows between the Barguna district and neighbouring districts. This connectivity enhances regional trade, strengthens economic ties, and fosters overall development within the region.

Culturally, Barguna Paurashava acts as a melting pot, attracting people from diverse backgrounds and ethnicities. The presence of various cultural communities creates an environment ripe for cultural exchange and interaction. Festivals, traditions, and cultural practices from different communities contribute to the vibrant cultural fabric of the region, enriching the overall regional identity.

Barguna Paurashava's coastal location and proximity to natural attractions, particularly the worldrenowned Sundarbans mangrove forest, give it immense tourism potential. Visitors are drawn to the region for nature-based experiences, adventure, and cultural immersion. The development of tourism infrastructure and the promotion of ecotourism initiatives can further unlock the region's tourism potential, leading to economic growth and regional development.

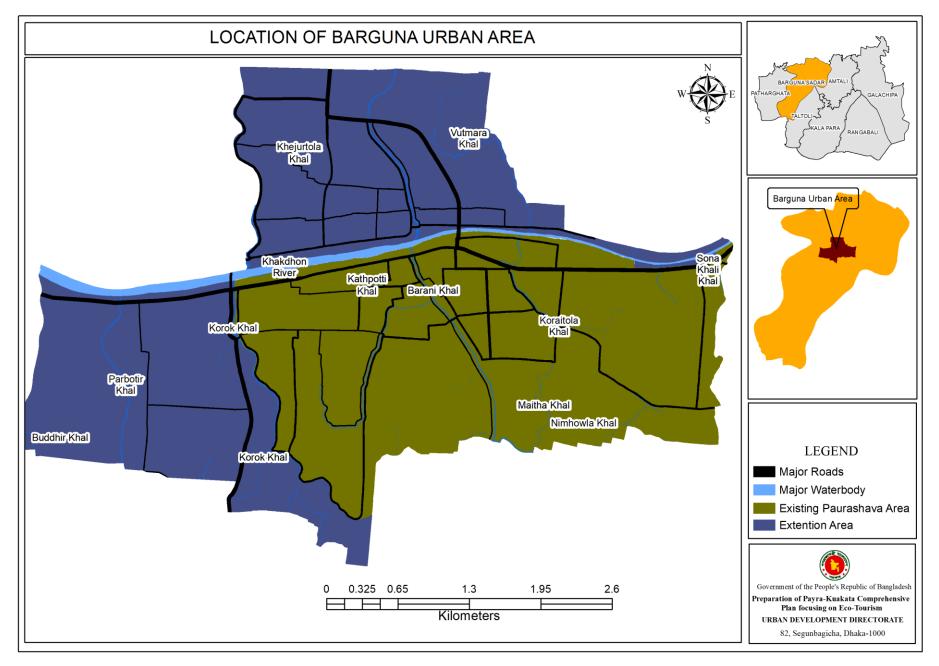
1.7 Linkage with Upper Tire Plans:

The Barguna Paurashava Urban Area Plan is intricately linked to the Regional Plan and Structure Plan, ensuring a coordinated and integrated approach to development.

The Regional Plan provides a broader framework for the development and growth of the entire region encompassing Barguna Paurashava. It takes into account factors such as regional economic activities, transportation networks, environmental considerations, and overall land use planning. The Barguna Paurashava Urban Area Plan aligns with the goals and objectives outlined in the Regional Plan, ensuring that the urban development of Barguna Paurashava contributes to the overall regional development vision. Furthermore, the Structure Plan plays a crucial role in shaping the physical layout and spatial organization of Barguna Paurashava. It guides the distribution of land use, transportation networks, infrastructure, and public facilities within the urban area. The Barguna Paurashava Urban Area Plan integrates with the Structure Plan, ensuring that the development and growth of Barguna Paurashava align with the planned physical structure of the urban area.

The linkage between the Barguna Paurashava Urban Area Plan, Regional Plan, and Structure Plan ensures synergy and coordination in urban development efforts. It allows for a holistic and comprehensive approach to address the economic, social, environmental, and infrastructural aspects of the urban area while considering the broader regional context.

Through this cohesive approach, the Barguna Paurashava Urban Area Plan leverages the guidance and direction provided by the Regional Plan and Structure Plan to ensure sustainable and well-planned development. By integrating the goals, strategies, and spatial considerations of these plans, Barguna Paurashava can evolve into a thriving and well-functioning urban center that meets the needs of its residents and contributes to the overall development of the region.



Map 0-1: Location of Barguna Urban Area

CRITICAL PLANNING ISSUES

1.8 Critical Planning Issues:

The Barguna Paurashava Urban Area Plan addresses several critical planning issues to ensure the sustainable development and efficient management of the urban area. The plan focuses on tackling the following key planning challenges:

- Regional connectivity and Transport Mobility: Barguna Paurashava is surrounded by Payra and Bishkhali River. Barguna Sadar is separated from Patharghata by Bishkhali River and from Amtali by Payra River. The Paurashava's economy is highly linked with surrounding region. Therefore, transport connectivity is highly important. Currently, the only way to cross those rivers are through Ferry. Bridge connecting Patharghata and Barguna on Bishkhali River and Amtali and Barguna on Payra River would strengthen the regional connectivity. Barisal Barguna Highway has been proposed 120 feet wide to farther strengthen the regional connectivity.
- 2. Transport within Urban Area: because of being a district town, Barguna embrace the significance and influence as the centre of attraction as economic, transportation and administrative hub for the Barguna District Region. Therefore, a lot of trips get generated every day towards Barguna Paurashava. Therefore, handling the traffic is way more challenging. In the plan, Barisal Barguna Highway has been proposed 120 feet wide but that's not sufficient to handle the issue. Huge number of vehicles in the main route might cause unbearable traffic jam. Therefore, a bypass road has been proposed to handle the situation more efficiently. The plan is also considering widening of important and busy roads as well. (Figure no: 5.1 & 5.2)
- 3. **Housing:** Affordable and adequate housing is a significant issue in Barguna Paurashava. The plan will identify strategies to address the housing shortage, promote affordable housing options, and improve the quality of housing for urban residents. Addressing the need for affordable and quality housing options for residents, including strategies for housing development, rehabilitation, and slum upgrading are some of the significant considerations in the plan.
- 4. Slum Areas: there are a few numbers of slums in Barguna Pausashava housing mainly homeless and labour class people of the Paurashava. In most of the cases. These lands are either government khas land or illegally occupied property. Informal settlements are prevalent in the Paurashava, leading to overcrowding, poor living conditions, and social exclusion. The plan will address informal settlements by identifying strategies to promote formalization, provide adequate housing, basic services and infrastructure, and ensure social inclusion. These slums need

immediate relocation to a suitable location. This plan has a proposal for rehabilitation area in the new urban area.

- 5. Environmental Degradation and Canal encroachment: The Barguna Paurashava is located in a coastal area and is vulnerable to environmental degradation caused by natural disasters such as cyclones, floods, and erosion. The plan will address the challenges of environmental protection, sustainable land use, and climate change adaptation. Canal encroachment is also a serious issue in the Paurashava. Varani khal, Katpatti khal, Amtolar khal etc. need restoration and excavation.
- 6. Utility Infrastructure Deficiencies: The Paurashava suffers from deficiencies in basic Utility infrastructure, such as roads, water supply, and drainage systems. These deficiencies hinder economic growth and development, and the plan will prioritize the development of infrastructure to support growth and improve the quality of life for residents. The Paurashava is facing challenges related to the inadequate and insufficient urban infrastructure, including water supply, sanitation, and solid waste management. The plan will address these issues by identifying strategies to improve the urban infrastructure and services and promote sustainable and efficient urban development.
- 7. Limited Access to Health and Education: The Paurashava has limited access to quality healthcare and education. The plan will address this issue by identifying strategies to improve access to health and education services and facilities. A medical college and hospital have been proposed within the proximity to the existing Sadar Hospital. The plan also ensured Provision for educational institutions, vocational training centers, and skill development programs to meet the educational and employment needs of the population.
- 8. Absence of Land use Zoning: The Paurashava faces challenges related to land use and zoning, particularly in urban fringe areas situation is even worse. The plan will develop a comprehensive land use and zoning plan that balances economic development with environmental protection and community needs.
- 9. **Tourism & Eco-tourism:** The Barguna Paurashava has a significant potential for tourism development, particularly due to its coastal location, natural beauty, and cultural heritage. The plan will identify strategies to develop the tourism sector sustainably, while preserving natural and cultural resources, and providing economic opportunities for local communities.
- 10. Agriculture and Fisheries: Agriculture and fisheries are important sectors in the Paurashava, providing employment and income for many households. The plan will identify strategies to

support these sectors, promote sustainable and efficient practices, and enhance value chains to increase income and productivity.

- 11. **Public Space and Recreation:** Access to public space and recreational facilities is essential for the well-being and social cohesion of urban residents. The plan will identify strategies to promote the creation of public spaces, recreational facilities, and green areas, and ensure equitable access for all. Adequate green space has been proposed for the Paurashava in the plan.
- 12. **Poverty and Inequality:** The Paurashava suffers from high poverty rates and income inequality. The plan will identify strategies to reduce poverty and promote inclusive growth, particularly for marginalized and vulnerable groups.
- 13. Economic Development: The Paurashava will diversify its economy and create employment opportunities to support sustainable economic growth. The plan will identify sectors with growth potential and promote entrepreneurship and innovation. The Paurashava faces challenges related to limited access to finance for businesses and individuals. The plan will identify strategies to increase access to finance and promote financial inclusion. The urban economy in the Paurashavais characterized by significant informality, which leads to economic exclusion and insecurity. The plan will identify strategies to promote formalization, support micro, small, and medium-sized enterprises (MSMEs), and create employment opportunities.
- 14. **Technology and Innovation:** Technology and innovation can drive urban development, promote economic growth, and enhance the quality of life for urban residents. The plan will identify strategies to promote technology and innovation, support digital transformation, and ensure equitable access to technology.
- 15. Water Supply and Sanitation: Access to safe drinking water and sanitation facilities is essential for the health and well-being of urban residents. The plan will identify strategies to promote adequate water supply and sanitation facilities, including infrastructure development, water resource management, and hygiene promotion. The plan has provision for water treatment plant for the Paurashava.
- 16. **Waste Management:** Urban areas generate significant amounts of solid waste, which pose environmental and health risks. The plan identified strategies to promote proper waste management, including waste reduction, recycling, and disposal, and ensure the participation of the informal sector in waste management. The plan has provision for Waste recycling plant for the Paurashava.

- 17. Disaster Risk & Environmental Management, Resilience and Adaptation: The Barguna Paurashava is located in a region that is prone to natural disasters, such as cyclones, floods, and earthquakes. The plan will identify and address the risks associated with such disasters and develop strategies to manage and mitigate their impact on the local communities. Incorporating measures to protect and enhance the natural environment, including conservation of green spaces, water bodies, and forest areas, as well as managing waste and promoting eco-friendly practices and Integrating measures to mitigate the risks posed by natural disasters, including flood management, ensuring building codes and regulations are in place, and promoting community preparedness and resilience are major considerations of the plan.
- 18. **Salinity:** The salinity levels in Barguna Paurashava vary depending on the time of year and the location within the Paurashava. During the dry season (November to April), when there is less rainfall and freshwater flowing into the area, salinity levels tend to be higher. Conversely, during the monsoon season (June to September), when there is more rainfall and freshwater, salinity levels tend to be lower. Therefore, fresh water source is limited. Surface water treatment and rainwater harvesting can be the best option.
- 19. Sea Level rise: According to various studies and reports, the sea level in Bangladesh has been rising at a rate of around 7 millimetres per year, which is higher than the global average. This rise in sea level has significant impacts on the coastal communities of Barguna Paurashava and the surrounding areas, including increased coastal erosion, inundation of low-lying areas, and saltwater intrusion into freshwater sources. The impacts of sea level rise are particularly severe during cyclones and storm surges, which are becoming more frequent and intense due to climate change.
- 20. Flooding and drainage: As the area lies at the southernmost tip of Barguna facing the Bay of Bengal, the area is highly vulnerable due to hydrological hazards, especially monsoon floods and coastal floods. Coastal floods can arise from tidal floods as well as storm surge-induced floods. The area is also vulnerable due to extreme precipitation, especially during cyclones that occur during the pre-monsoon and post-monsoon periods.
- 21. **Urbanization:** The Paurashava is experiencing rapid urbanization, which is putting pressure on urban infrastructure, such as housing, transportation, and utilities. The plan will address this issue by developing a comprehensive urban plan that supports sustainable and equitable urban development.

- 22. Governance and Institutional Capacity: The Paurashava faces challenges related to governance and institutional capacity, including the lack of effective public service delivery, weak institutional frameworks, and limited public participation in decision-making. The plan will address these issues by identifying strategies to strengthen governance and institutional capacity and promote participatory planning and decision-making.
- 23. **Natural Resource Management:** The Paurashava has significant natural resources, including canals, wetlands, and fisheries, which provide important ecosystem services and support local livelihoods. The plan will identify strategies to manage these resources sustainably and promote their conservation and restoration.
- 24. Social and Cultural Heritage along with ethnic community: The Paurashava has a rich cultural and social heritage, which is an important asset for sustainable development. The plan will identify strategies to promote the preservation and promotion of this heritage and support cultural and social activities that contribute to community development and well-being. The Rakhine community lives in Baliyatli union of Barguna sadar Upazila which is in the southern part of the Barguna district. Bengali culture has a mixture of Rakhine culture with the culture of this region. Rakhine have their own production system, including diverse industries, agricultural works, pigs, and animals. At the same time, social programs include Jajal Krira, Fanus Chodra, Pitha festival etc.

POPULATION PROJECTION & PLANNING STANDARD

1.9 Population Projection

Barguna Paurashava was Established in 1973 With a Gazette Area of 12.96 sq. km. as a 1st class Paurashava. According to BBS Census 2011, the population of Barguna Paurashava was 32235 which has been revised in the 2022 census as 40019. Following that trend, population for the year 2031 & 2041 has been estimated.

Ward wise base Year databases were as follows:

Name	Total Population 2011	Total Population 2022
Barguna Paurashava	32235	40019
Ward 01	4118	5148
Ward 02	5209	5130
Ward 03	4272	5046
Ward 04	3543	5466
Ward 05	3801	5296
Ward 06	1897	2187
Ward 07	2769	2448
Ward 08	3609	4562
Ward 09	3017	4736

Table 0-1: Base year Population data

1.10 Projection Method

There are various methods of Population projection; here linear projection process has been trailed by the following way.

Projected Population = Current Population + (Annual Population Change * Number of Years)

Again, to calculate the annual population change, you can use the following formula.

Annual Population Change = (Population at Future Year - Population at Starting Year) / (Number of Years)

Table 0-2: Pro	jected Populatio	n for 2031 & 20	41

Name	Population in 2031	Population in 2041
Barguna Paurashava	46388	53464
Ward 01	5856	6643
Ward 02	5838	6625
Ward 03	5754	6541

Ward 04	6174	6961
Ward 05	6004	6791
Ward 06	2895	3682
Ward 07	3156	3943
Ward 08	5270	6057
Ward 09	5444	6231

1.11 Review of Planning Standard

Urban Planning Standards in Bangladesh are not comprehensive, well-articulated and well compiled. They are scattered in different acts, plans, reports, rides and even in executive orders. Some of these standards, as incorporated in acts and in some plans, are statutory in nature. However, irrespective of their strength of enforceability, the level of compliance is extremely low due to slack in enforcement administration. Different plans use different standards. The following table will give a clear picture of the facts.

	Standards in Recent Metropolitan Plans			
	Khulna City	Dhaka	Rajshahi Urban Area	Plan for Barisal
	Master Plan,	Metropolitan	Plan	Divisional Town
Uses	2001-2010	Development		
		Plan, 1995-		
		2015		
Open Space	1 acre/ 1000	0.16 acre/ 1000	1.5 acres / 1000	1 acre/ 1000 population
	population	population	population	
Education				
Primary School	1 school /7,000	1 School /	1 School / 4000	1 school /7,000
	population	15,000	Population	population (approx.); 1
	approx.	Population	Area: 1 acre to 1.50	acre of land
	Area: 0.50 acre		acres	
	to 0.70			
	Acre			
Secondary school	1 school /	1 School /	1 school /6,000	1 school / 8,000
	8,000	23,000	Population Approx.	population (approx.); 2
	population	Population	Area: 2 acres to 3 acres	acres of land

Table 0-3: Comparative picture of Planning standard in various Plan

	approx. Area: 1.50 acre to 1.60 acre			
College	One college /36,000 population approx. Area: 10 acres	N/A	One college /30,000 population Area: 10 acres maximum.	1 college/ 30,000 population (approx.); open space equivalent to one football field
Katcha Bazaar	One for Bazar/45,000 population of 0.30 acre each.	One in Each Ward, 0.30 acre each.	One in Each Ward/SPZ in urban area and one for every 50,000 population in extended area. 0.30 acre minimum space for each.	One in Each Ward, 0.30 acre each
Neighbourhood Centre	One in Each Ward, 0.30 acre each	One in Each Ward, 0.30 acre each	One for each declared neighborhood, 0.30-acre max. for each.	One in Each Ward, 0.30 acre each
Health	1 bed/ 1000 persons	N/A	354 persons / bed	1 bed/ 1000 persons

Source: DMDP, (1995-2015); Khulna City Master Plan (2001-2010); Rajshahi & Barisal masterplan

1.12 Planning Standard for Barguna Paurashava

Barguna Paurashava is a district town and holds the status of a 1st class Paurashava. Due to its growth potential and regional importance, the paurashava is expanding rapidly. Considering the agglomeration pattern, new urban area has been proposed in the plan. Considering all the facts the following standard has been fixed for Barguna Paurashava.

Type of Land Uses	Unit (Recommended Standard Provision)
Residential	
General residential	100-150 persons/acre
Real Estate-Public/Private	150-200 Person/acre

Table 0-4: Planning Standard for Barguna Paurashava

Residential/Rural Homestead	50 person/acre
Education	
Primary School/ Kindergarten	2 acres/ 5,000 Person
Secondary / High School	5 acres/ 20,000 Person
College	10 acres/ 20,000 Person
Vocational Training /polytechnic Institute Centre	5 acres/Paurashava
Others (Library, Public library)	5 acres/ 20,000 Person
Open Space, Sports & Recreational	
Central park	10 acre/Paurashava
Neighborhood /Community Park	1 acre/10,000 Person
Town Hall/ Complex/auditorium & Public Event	1.5-2.00 acre/Paurashava
Health Facility	
Specialized Hospital	1 acre/ Paurashava/ Union HQ
Clinic	0.25/ 20000 Person
Commerce and Shopping	
Wholesale market	3-5 acres/Paurashava/Union
Retail sale/Kitchen/Neighborhood market	0.5 acre / 10000 Person
Market for Indigenous Product	2 acres (need based)
Industry	
General/ Agro/Cottage Industry	2.5 acres/10,000 Person
Administration	
Urban Deferred	10% buildup area/ Dist. HQ
Pourashava office	3 acres / Paurashava
Community Facilities	
Mosque/ Church/Temple	0.5 acre/ 20,000 Person
Eidgah	2 acres/20,000 Person
Graveyard	1 acre/20,000 Person
Cremation Ground	0.5 acre/20000 Person
Community Center/Auditorium	0.5 acre/20,000 Person
Club/Gymnasium	0.25 acre/ Optional
Utilities	
Electricity supply/ Electric sub station	1 acre/20000Person
Water Supply Station treatment plant	1 acre/20000Person
Gas supply station	1 acre/20000Person
Waste Disposal Ground & Treatment plant	5 acres (need based)

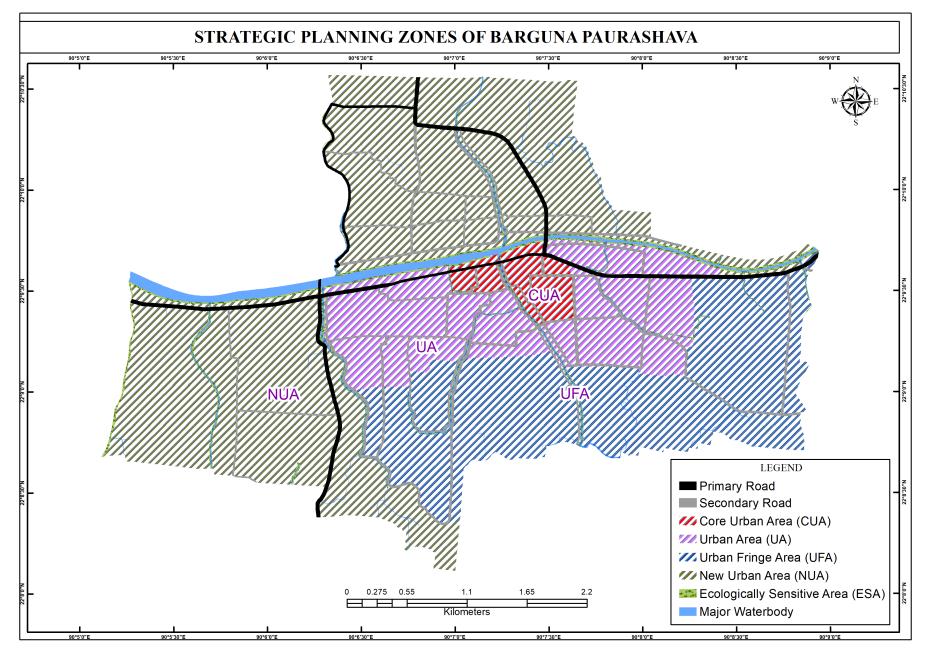
Transportation	
Bus terminal	5 acres (Need based)
Truck terminal	1.5 (Need based)
Bus Stand	0.5 acre/20000 Person/Paurashava
Government Services	
Police Station	3-5 acres/Paurashava
Police Box	0.5 acre (need based)
Post Office	0.5acre/Paurashava
Fish Landing station	0.5 acre (need based)
Fire Service	1 acre/Paurashava
Telephone Exchange	0.2 acre/Paurashava

In Barguna Paurashasva Urban Area plan, a land requirement has been identified by considering the planning standard mentioned above & then various proposals for various sectors have been given accordingly. The required land issue is also reflected in the land use proposal & finally in strategic land use zoning.

1.13 Strategic Planning Zone

The Strategic Planning Zone is the most useful & widely used tool for Promoting Development alongside controlling the haphazard or unplanned one. Special Planning Zone is the clearly defined geographical area where explicit uses are permitted & specific uses are restricted. Barguna Paurashava Area has been separated into the following Special Planning Zones. (Map 4.1)

- Core Urban Area (CUA)/District Urban Centre: Urban Core generally refers to the oldest part of the urban area. The area is characterized by a concentration of commercial, cultural, and institutional activities, and it often serves as the historical and economic heart of the Urban Area. The urban core is distinguished by its high population density, diverse land uses, iconic landmarks, and often older infrastructure. It plays a crucial role in shaping the identity, development, and overall vibrancy of an urban area.
- Urban Area (UA): An "urban area" is a geographic region characterized by a high population density and a significant concentration of built structures, including buildings, roads, and infrastructure. These areas are typically more developed and densely populated than Urban Fringe and rural areas. The urban core serves as the central hub of economic activities, cultural landmarks, and government functions, attracting people from the surrounding urban area. In turn, the broader urban area provides residential spaces, a diverse labor force, and essential services to support the core's functions.
- Urban Fringe Area (UFA): The "urban fringe area," also known as the "peri-urban zone" or "suburban area," refers to the transitional zone located on the outskirts of an urban area. It is situated between the densely populated urban regions and the rural or undeveloped areas that stretch further beyond. The urban fringe area is characterized by a mix of urban and rural land uses, as well as ongoing interactions between urban and rural activities.
- New Urban Area (NUA): New Urban Area refers to new development areas beyond urban fringe area. This area often emerges as a result of urban expansion, population growth, or intentional urban revitalization efforts. "New urban areas" typically embody contemporary design principles and may incorporate sustainable development practices to address the needs of a changing society and economy.



Map 0-1: Strategic Planning Zones of Barguna Urban Area

Those SPZ areas have been sub-divided farther based on specific characteristics. Those subdivisions are as follows,

Core Urban Area

- ➢ CUA 01: Core Commercial Zone
- > CUA 02: Green Zone with Administrative Preference
- > CUA 03: Mixed Use with Residencial Preference

Urban Area

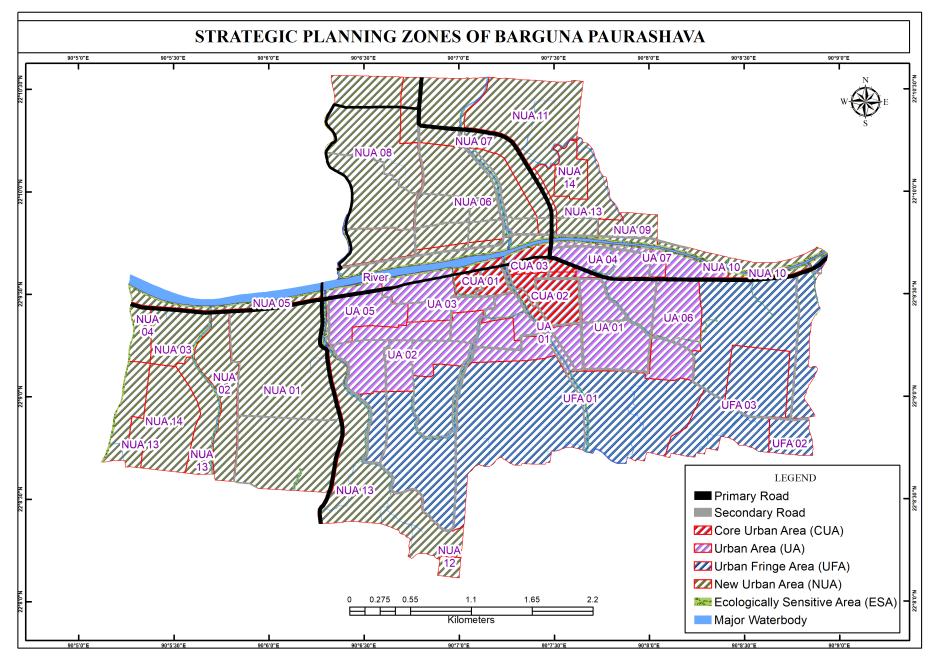
- UA 01: Green Zone with Administrative Preference
- UA 02: Residential Area
- UA 03: Mixed Use
- UA 04: High Density Residential Zone
- UA 05: Mixed use Zone with Administrative Preference
- UA 06: Mixed Use Zone
- UA 07: Sports Zone

Urban Fringe Area

- UFA 01: Low Density Residential area
- UFA 02: Service Zone
- UFA 03: Agriculture

New Urban Area

- NUA 01: Industrial Zone
- NUA 02: Low Income Housing
- NUA 03: Resettlement and Relocation Zone
- NUA 04: Eco-Resort Area
- NUA 05: River Side Activity Zone 01
- NUA 06: Planned Residential Area
- NUA 07: Mixed Use Zone
- NUA 08: Urban Deferred Area
- NUA 09: Park and Open Space Zone
- NUA 10: River Side Activity Zone 02
- NUA 11: Institutional Zone
- NUA 12: Service Zone
- NUA 13: Area with Rural Characteristics
- NUA 14: Agricultural



Map 0-2: Strategic Planning Zones with Sub-divisions of Barguna Urban Area

1.14 Development Promotion & Control Guideline of Each SPZ

1.14.1 Core Urban Area (CUA)/ District Town Centre

Core urban area comprises the older part of the Paurashava. This part of the Paurashava has been divided into five zones depending on their characteristics and interventions required. These Three zones have been shown in the Core Urban Area map (Map 4.2) and discussed below.

1.14.1.1CUA 01 Core Commercial Zone

Barguna Katcha Bazar has been designated as the Core Commercial Zone in the Barguna Paurashava Urban Area plan due to its significance as a major wholesale area. The bazar has been serving as the commercial hub for the region for a long time, and its economic activity and high footfall make it an attractive location for businesses. Despite being densely built-up, the area continues to grow as an essential economic center, providing employment opportunities for the local population and contributing significantly to the local economy. However, the densely built-up nature of the bazar and inadequate accessibility make it challenging for pedestrians and vehicles to move around. Moreover, there are some buildings in the area that are not appropriate for the adjacent road width, further exacerbating the congestion problem. To address these issues, the area should be declared as a precinct, facilitating better planning and management of the commercial activities in the area. Additionally, time restrictions on vehicular movement would help reduce congestion and improve pedestrian safety. Despite these challenges, the bazar's well-established commercial activity, central location, and cultural significance make it an attractive location for businesses and a hub of activity for the local population. With better planning and management, the Barguna Katcha Bazar can continue to thrive as the Core Commercial Zone in the Barguna Paurashava, providing employment opportunities and contributing to the local economy while remaining an essential economic center for the region.

General Trend & Issues

- Major wholesale trading zone.
- Spontaneous dense development.
- Motorized vehicles don't match the development pattern.
- Criss-crossed by narrow lanes, which are of pedestrian scale.

Opportunities

- Connected through canals and roads.
- Proximity to main administrative zone.
- Low rise development, which adores to human scale of living and movement.

Action Required

- Start consultation with stakeholders to promote the idea of declaring the zone as precinct.
- Take initiatives to restrict movement of motorized vehicles.
- Declare the area as pedestrian precinct.

1.14.1.1.1 Planning Guidelines & Permitted Use

Table 0-1: Permitted Use for CUA 01 Core Commercial Zone

Retail stores	Flower shops
Restaurants and eateries	Home decor and furnishings
Banks and financial institutions	Tailoring and garment shops
Pharmacies	Shoe stores
Beauty salons and spas	Gift shops
Electronics and gadget shops	Sports equipment stores
Jewelry stores	Art galleries
Bookstores and stationery shops	Grocery stores and supermarkets
Hardware stores	Fitness centers and gyms
Pet shops	Mobile phone repair shops
Kitchen Market	Other Commercial Activities

Table 0-2: Restricted Use for CUA 01 Core Commercial Zone

Industry & Manufacturing	Uses harmful for Health & Safety

1.14.1.2CUA 02: Green Zone with Administrative Preference

This area is located in the Eastern Bank of Varani Khal. The area is predominantly in administrative use. Barguna D.C. Office, Court, District Bar Association, Shilpokola Academy etc. are the main offices there. This area has a lot of greenery.

General Trend & Issues		
 High quality government Administrative/residential area. 		
 Old part of the city. 		
 High density development 		
 Spontaneous development without proper infrastructure provision 		
 Insufficient and unsafe pedestrian facilities 		
Opportunities		

- Presence of heritage buildings and site.
- Vibrant urban life.
- Criss-crossed by many lanes.
- Lush green character.
- The presence of big old trees.
- Presence of Lake and ponds.

Action Required

- Preservation of the green Characteristics
- Maintain the area with low density, low height, and green zone.
- Pursue concerned agencies to conduct full length study to identify heritage buildings & sites and take initiatives to preserve them.
- Take marketing initiatives of the heritage resources to the potential tourists.
- Negotiate with the concerned authority of the central government to relocate the Paura Bhaban to this area.
- Initiate stakeholders, especially community, consultation to promote and preserve the value of buildings and sites having architectural, historical and other cultural significance.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone

1.14.1.2.1 Planning Guidelines & Permitted Uses of the zone

Table 0-3: Green Zone with Administrative Preference

Office /Residence & Banglow of Government Body

Office /Residence & Banglow of Autonomous/ Semi-autonomous/Corporation & Authority

Office /Residence Banglow of State-owned Company /bank

Government Service & Facilities/utilities

Limited Residential and Commercial

Supporting Private services with the consent of Proper authority

Associated uses suitable for this zone

1.14.1.3CUA 03 Mixed Use with Residencial Preference

Situated in the eastern bank Varani Khal and Southern Bank of Khakdun River. As the area is densely developed and the roads, drains and other infrastructure has become inadequate and at the same time the

area retains its heritage in its look, therefore preferable action should be land readjustment and urban upgradation rather than large scale demolition or land use change.

Issues and Problems

- Insufficient pedestrian facilities.
- spontaneous residential development.
- Unplanned Development

Opportunities

- Proximity to Administrative Zone
- Proximity to CBD
- Moderate density development dominates the zone.
- Highly potential for Residential-Commercial Mixed Use

Action Required

- Initiate community-based actions to prepare local development plan.
- Pursue government agencies to prepare infrastructure plans before development takes place.
- Prepare Action Area Plan on priority basis.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone

1.14.1.3.1 Planning Guidelines & Permitted Uses of Mixed Use with Residencial Preference

Table 0-4: Permitted Uses of Mixed Use with Residencial Preference

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-5: Restricted Use for Mixed Use with Residencial Preference

Industry & Manufacturing	Uses harmful for Health & Safety

1.14.1.4Structure plan Policies for Core Urban Area (CUA)

CON.01 Identify and preserve Ecologically Sensitive Area (ESA)

Major sites of ecological interest should be immediately identified and declared as ESA. Any development or activity that disrupts the local ecosystem of the area must be prohibited, ESA use any disturbance in these areas can propagate and affect the environment of the entire region.

CON.02 Locate and conserve 'Heritage Sights'

Places of historic interest, both cultural and religious, should be declared as 'Heritage Sights' and any alteration or unauthorized development in these places should be strictly restricted.

TRN.06 Formulating plans and actions that give highest priority to pedestrians.

As far as the short trips that are dominant in the project area are concerned, walking forms the healthiest and economically viable choice suited to the locality. Apart from the few roads designed to provide speed and mobility, most of the roads of a Paurashava like Barguna Paurashava are organic in pattern and suit pedestrians best.

H&S.09 Undertake slum improvement program and in some cases relocation plans need to be undertaken.

All slum areas need to be identified and proper improvement plans must be taken to improve the living quality of the slum people and to ensure fundamental needs of life. A proper relocation plan needs to be formulated to relocate the slum people to other areas with proper income generation activities. Slum people are also part of urban life, and they provide various urban services which are very necessary to the urban people. So, the relocation plan must focus on this point so that there is no chance of eliminating such services from the Barguna Paurashava area. Income generation activities in the relocated areas are very important and must be ensured. Otherwise relocated people will come back again in the Barguna Paurashava area and establish new slum.

1.14.1.5Guidelines for Core Urban Area

G1. Architectural, cultural, and historical buildings are to be conserved with due importance.

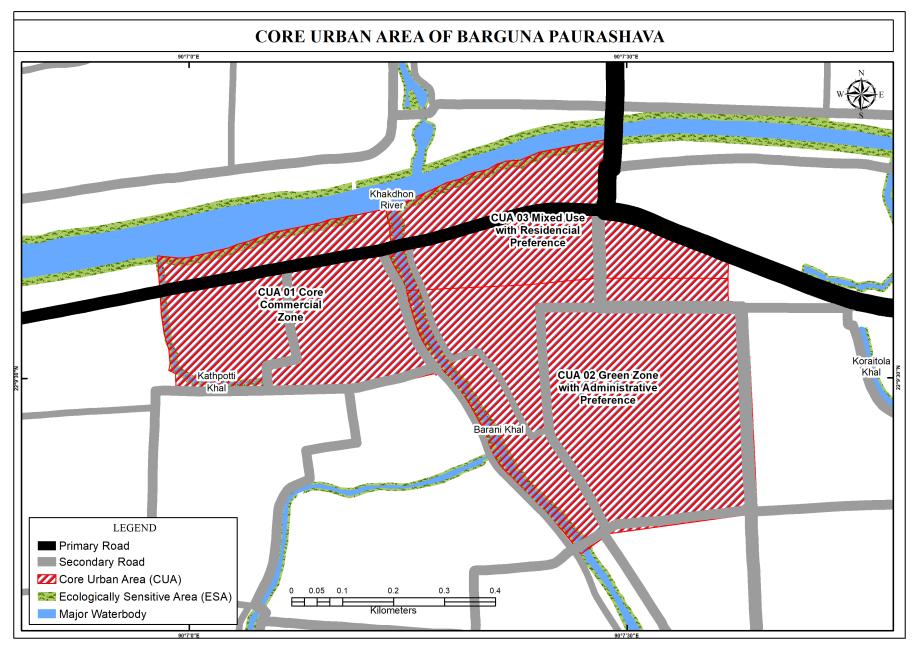
G2. Low density and low height should be maintained in CUA.02 with green space.

G3. Barguna Katcha Bazar with adjacent area is to be declared as precinct.

G4. There would be strict time control on vehicular movement in CUA.

G5. For constructing a building, Bangladesh Building Construction Rules 2008 will be followed.

G6. Till the whole Core Urban Area is covered by Action Plan, all development proposals in this zone will have to be submitted by Standard Application.



Map 0-3: Core Urban Area (CUA) of Barguna Urban Area

1.14.2 Urban Area (UA)

Existing urban area refers to the area outside the Paurashava core already designated as urban. This part of the Paurashava has been divided into Seven (07) zones depending on their characteristics and interventions required. These Seven zones have been shown in the Existing Urban Area map (Map 4.3) and discussed below.

1.14.2.1UA 01 Green Zone with Administrative Preference

Existence of Zila prison, District & Sessions Judge Court, Barguna District & Upazila Election Office, Bangabandhu Memorial Complex, Regional Passport Office, Barguna Police Line, Barguna General Hospital, TTC Barguna, Circuit House, etc. indicates the supremacy of administrative land use in this zone. Yet other uses can also be found here. Development control measures for this zone would try to preserve its administrative character.

Issues and Problems

- High quality government Administrative/residential area.
- Insufficient pedestrian facilities.

Opportunities

- Presence of heritage buildings and site.
- Lush green character.
- The presence of big old trees.
- Presence of Lake and ponds.

Action Required

- New uses in this area should conform with existing administrative establishments.
- Green characteristics must be preserved.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone.
- Pond and waterbody preservation

1.14.2.1.1 Planning Guidelines & Permitted Uses of the zone

Table 0-6: Green Zone with Administrative Preference

Office /Residence & Banglow of Government Body

Office /Residence & Banglow of Autonomous/ Semi-autonomous/Corporation & Authority

Office /Residence Banglow of State-owned Company /bank

Government Service & Facilities/utilities

Commercial Uses by Government body/State owned Company/corporation etc

Supporting Private services with the consent of Proper authority

Associated uses by Government body/State owned Company/corporation/authority etc

Limited Residential and Commercial

1.14.2.2UA 02 Residential Area

Semi-urban area with High/moderate density and Spontaneous development without proper infrastructure provision defines the characteristics of this area. It is the largest residential area in Barguna Paurashava.

Issues and Problems

- Semi-urban area
- High/moderate density
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve

Opportunities

- High/moderate density development
- High land
- Proximity to CBD
- High potential to grow following the existing growth pattern

Action Required

- Identify the alignment of proposed road and roads those need up-gradation.
- Defer development activities on land reserve required for new road and road up-gradation.
- Initiate community-based awareness program to preserve and protect water bodies.
- Initiate community-based actions to prepare local development plan.
- Pursue different government agencies to prepare infrastructure plans before development takes place.
- Site and Services Scheme should be strongly discouraged.
- A dense wall of vegetation should be all around the zone.
- Relevant infrastructure development to support proper development and functionality of the zone.
- Preservation of ecologically sensitive areas

1.14.2.2.1 Planning Guidelines & Permitted Uses of Residential Zone

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-7: Permitted Uses of Residential Zone

Table 0-8: Restricted Use for Residential Zone

Industry & Manufacturing	Uses harmful for Health & Safety
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1.14.2.3UA 03 Mixed Use Zone 01

Areas occupied by prominent educational institutions such as Barguna Zila School, Girls School etc. constitute this zone. Despite having so many educational institutions, the main land use of this area is residential. But the institutional character of this zone must be preserved.

Issues and Problems
 Location of Barguna Zila School, Girls School etc. constitutes this zone.
Opportunities

Low density green area dominates the zone.

Action Required

- Retain the existing prevailing institutional character of the zone.
- All modern amenities must be provided to maintain the standard of living in residential part.
- Adequate infrastructure development must be ensured to support the proper operation of the zone.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone.
- Preservation of ecologically sensitive areas.

1.14.2.3.1 Planning Guidelines & Permitted Uses of Mixed-Use Zone 01

Table 0-9: Permitted Uses of Mixed-Use Zone 01

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose
Educational institution	library	Book shop	Other educational accessories shop

Table 0-10: Restricted Use for Mixed Use Zone 01

Industry & Manufacturing	Uses harmful for Health & Safety
--------------------------	----------------------------------

1.14.2.4UA 04 High Density Residential Zone

Semi-urban area with High density and Spontaneous development without proper infrastructure provision. Situated on the southern bank of Khakdun River.

Issues	and Problems
•	Semi-urban area
•	High density
•	Spontaneous development without proper infrastructure provision
•	No initiative for provision of infrastructure reserve
Oppor	tunities
•	Existing development
•	High land
•	Proximity to CBD
•	High potential to grow following the existing growth pattern
Action	Required
	Identify the alignment of proposed road and roads those need up-gradation.
•	Defer development activities on land reserve required for new road and road up-gradation.
•	Initiate community-based awareness program to preserve and protect water bodies.
•	Initiate community-based actions to prepare local development plan.
•	Pursue different government agencies to prepare infrastructure plans before development
	takes place.

Preserve ecologically sensitive areas.

1.14.2.4.1 Planning Guidelines & Permitted Uses of High-Density Residential Zone

Table 0-11: Permitted Uses of High-Density Residential Zone

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-12: Restricted Use for High Density Residential Zone

Industry & Manufacturing	Uses harmful for Health & Safety
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1.14.2.5UA 05 Mixed use Zone with Administrative Preference

This zone is adjacent to crock Khal and Croke Sluice Bazar. This is a predominantly government Administrative/residential area with Insufficient pedestrian facilities. Upazila Parishad, Upazila Land

office, Upazila education Board, Upazila Water Development Board etc. are the main Government offices in this area.

EUA.05 Mixed-use Zone with Administrative Preference

Issues and Problems

- High quality government Administrative/residential area.
- Insufficient pedestrian facilities.
- Distance from CBD

Opportunities

- Presence of heritage buildings and site.
- Lush green character.
- The presence of big old trees.
- Presence of Lake and ponds.

Action Required

- Pursue concerned agencies to conduct full length study to identify heritage buildings & sites and take initiatives to preserve them.
- Take marketing initiatives of the heritage resources to the potential tourists.
- Pursue all to maintain the existing character of low density, low height and green character.
- Pursue concerned agency to replace the existing boundary wall with more seethrough/transparent walls to increase the visibility of the area
- New uses in this area should conform with existing administrative establishments.
- Green characteristics must be preserved.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone.
- Pond and waterbody preservation
- Ecologically sensitive area preservation.

1.14.2.5.1 Planning Guidelines & Permitted Uses of the zone

Table 0-13: Mixed use Zone with Administrative Preference

Office /Residence & Banglow of Government Body

Government Service & Facilities/utilities
Commercial Uses by Government body/State owned Company/corporation etc.
Associated uses by Government body/State owned Company/corporation/authority etc.
Residential, Commercial & Recreational
Other Activity related to residential purpose

Table 0-14: Mixed use Zone with Administrative Preference

Industry & Manufacturing	Uses harmful for Health & Safety
	e ses numitar for freathree surery

1.14.2.6UA 06 Mixed Use Zone 02

Considering the proximity to the preferred administrative zone, this zone would be developed as a mixeduse zone where trade and commerce would dominate. The residential use would be targeted mainly at the middle-income group.

Issues and Problems

- Insufficient pedestrian facilities.
- spontaneous residential development.
- Unplanned Development

Opportunities

- Proximity to Administrative Zone
- Low density development dominates the zone.
- Highly potential for High Class residential use

Action Required

- Initiate community-based actions to prepare local development plan.
- Pursue government agencies to prepare infrastructure plans before development takes place.
- Prepare Action Area Plan on priority basis.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone.
- Preservation of ecologically sensitive areas.

1.14.2.6.1 Planning Guidelines & Permitted Uses of Mixed-Use Zone 02

Table 0-15: Permitted Uses of Mixed-Use Zone 02

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-16: Restricted Use for Mixed-Use Zone 02

Industry & Manufacturing	Uses harmful for Health & Safety
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1.14.2.7UA 07 Sports Zone

The existing stadium and the areas surrounding it would form this zone. It would be turned into a national level sports complex incorporating an outer stadium, indoor sports complex, swimming pool, and gymnasium etc. so that it can be capable of hosting national/international sports events.

Issues and Problems

- Location of Barguna Paurashava stadium.
- The existence of slums.

Opportunities

- Present use conforms to the recommended use.
- River side view.

Action Required

- Prepare a plan for the development of the area as sports zone.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone.

1.14.2.7.1 Planning Guidelines & Permitted Uses of Sports Zone

Table 0-17: Permitted Uses of Sports Zone

Sports Area
Residential Quarters (Private)
Sports shops
Restaurants
Residential Hotels & Motels
Other Sports related activities

Table 0-18: Restricted Use for Sports Zone

Industry & Manufacturing	Uses harmful for Health & Safety	

1.14.2.8Structure plan Policies for Urban Area

CF.12 Create an Education and Research zone.

University is a place of knowledge and innovation. It is supported by different institutes and research centers. A designated area will have to be reserved and developed as an education and research zone. This zone should be outside of the core Paurashava area and should be easily accessible from different parts of the Paurashava. Local scholars can get the chance to show their potential and creativity here. It can work closely with local industries and entrepreneurs and act as the think tank for the community.

CF.13 Create a Sports and Recreation zone.

Sports and recreational facilities act as the catalyst for healthy living and a friendly environment for the residents in. A zone should be located and regarded as 'sports and recreation zone'. The existing stadium can be turned into a national level stadium and this zone can be built around it. It can include an outer stadium, indoor sports complex, gymnasium etc. Different types of international sports can be arranged here, and large amounts of revenue can be generated.

Ed.01 Initiative to improve conditions in existing industries and to ensure utilization of their full capacity.

Presently most of the manufacturing and industrial enterprises in Barguna Paurashava are run by private investors. It is desirable that the government's concerned authority extend cooperation to various private sector entrepreneurs to augment their activities, utilize full capacity of production and thus create more job opportunities and help economic development. The marginal manufacturing units, which do not have legal business/manufacturing documents, should be brought under book and encourage them by providing infrastructural facilities in a specific industrial area and providing them with financial assistance.

H&S.05 Present land division trend needs to be discouraged, especially restricted for single developer and large built able land. Emphasis to be given to establishing cluster of housing units.

Construction of high-rise buildings will be controlled. Building height restriction will be imposed within the Barguna Paurashava boundary to control the vertical development of the Paurashava. However, limited high rise residential building will be permitted in designated areas identified by the planning authority. Barguna Paurashava area will be divided into different height zones and construction permission will be given according to the height zones. More people can be accommodated in the same area of land if high rise building is encouraged but strict policy has to be taken to accommodate low- and middle-income groups in those towers. Cluster housing can be made in the form of multi storied structures, row house etc. instead of land sub-division

1.14.2.9 Guidelines for Urban Area

G1. Transform underutilized or contaminated sites into productive and safe spaces for development. (Brownfield redevelopment)

G2. Concentrate higher-density, mixed-use projects around public transit hubs to reduce reliance on cars and promote walkability. (Transit-oriented development)

G3. Utilize vacant or underdeveloped land within the city to accommodate new construction and avoid urban sprawl. (Infill development)

G4. Integrate diverse functions, such as residential, commercial, and recreational, within the same development to create vibrant neighborhoods. (Mixed-use promotion)

G5. Repurpose old or historic structures for new purposes, preserving cultural heritage while meeting contemporary needs. (Adaptive reuse of historic buildings)

G6. Restricting vehicle traffic in certain areas to create pedestrian-friendly spaces and enhance urban walkability. (Pedestrianization)

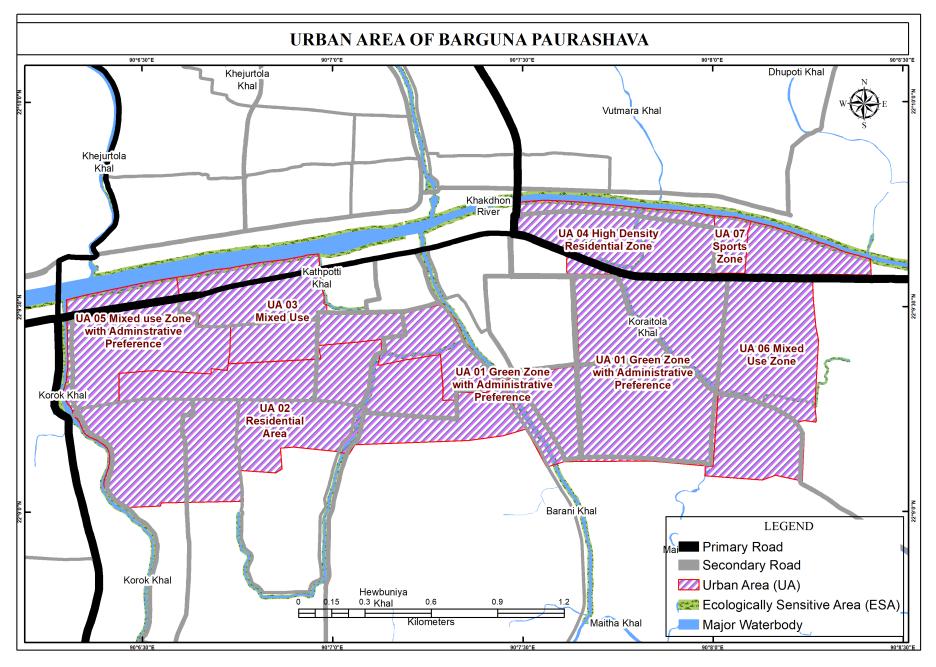
G7. Incorporate natural elements like green roofs and rain gardens to manage stormwater and improve environmental sustainability. (Green infrastructure)

G8. Implement policies to promote the construction of affordable housing units and address housing affordability challenges. (Affordable housing initiatives)

G9. Integrate technological solutions to enhance urban services, energy efficiency, and data-driven decision-making. (Smart city technologies)

G10. Renovate parks, plazas, and waterfronts to provide recreational opportunities and foster community interaction. (Public space enhancement)

G11. Design streets to accommodate all users, including pedestrians, cyclists, and public transportation, for safer and more accessible urban environments. (Complete streets)



Map 0-4: Urban Area (UA) of Barguna Urban Area

1.14.3 Urban Fringe Area (UFA)

The urban fringe area, also known as the urban-rural fringe or peri-urban area, refers to the transitional zone located at the outskirts of a city or urban area where urban development meets rural or agricultural land. It is the area that lies between the dense urban core and the more sparsely populated rural areas. This region exhibits a mix of urban and rural land uses, encompassing residential neighborhoods, commercial developments, industrial facilities, and agricultural activities. As cities expand and urban areas grow, they gradually encroach into the surrounding rural lands, transforming the landscape into a more urbanized one. However, the expansion is often accompanied by challenges like environmental concerns, such as conflicts over land use, preservation of natural habitats, and the impact on water resources and ecosystems. The urban fringe area also faces infrastructure challenges, as providing adequate services to the dispersed population can be complex. It is crucial for effective planning and sustainable development strategies to be in place to manage growth and maintain the quality of life in this critical transitional zone. (Map: 4.4)

1.14.3.1UFA 01 Low Density Residential area

Despite being within the Paurashava area, the zone exhibits rural characteristics, with open landscapes and a connection to nature. To safeguard its rural ambiance, it has been designated as a low/moderate density residential zone, ensuring a harmonious blend of urban development and a serene semi-rural lifestyle. This approach aims to preserve the area's distinct charm and create a thriving community that cherishes both the comforts of urban living and the tranquility of the countryside.

Issues and Problems

- Semi-urban area
- Low/moderate density
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve
- Low Land

Opportunities

- Low density development
- Proximity to the existing BSCIC area, Administrative Zone and proposed EPZ
- A lot of room to grow

- Identify the alignment of proposed road and roads that need upgradation.
- Road widening and relevant infrastructure development to support proper development and functionality of the zone.
- Preservation of ecologically sensitive areas.
- Encourage appropriate infrastructure development that respects the rural surroundings.
- Implement conservation initiatives to protect natural features within the zone.
- Provide incentives for developers who adhere to the low/moderate density vision.
- Regulate and limit commercial activities to maintain the rural character.
- Prioritize the design and development of public spaces and community facilities.
- Establish monitoring and enforcement mechanisms to ensure compliance with zoning regulations.
- Collaborate with relevant stakeholders, government agencies, and environmental organizations to coordinate efforts and support the implementation.

1.14.3.1.1 Planning Guidelines & Permitted Uses in Low Density Residential area

Table 0-19: Permitted Uses of Low-Density Residential area

Homestead Settlements
Residential Quarters (Private)
Retail shops
Restaurants
Residential Hotels
Bazar and growth Centers
Agriculture
Recreational Activities
Education and Research
Other Commercial activities

Table 0-20: Restricted Use for Low Density Residential area

Industry & Manufacturing that is harmful for Health & Safety

1.14.3.2UFA 02 Service Zone

Considering the existing waste dumping site and the Almost Empty surroundings, the establishment of a dedicated Sweeper Colony can significantly enhance waste management efforts. By providing residential accommodation for sweepers near their work location, it would reduce their commute time and ensure

prompt waste disposal. Moreover, the Sweeper Colony could be designed as an eco-friendly and selfsustaining community, fostering a sense of pride and improved living conditions for those who contribute to the cleanliness and sanitation of the area.

1.14.3.2.1 Planning Guidelines & Permitted Uses in Low Density Residential area

Table 0-21: Permitted Uses of Service Zone

Homestead Settlements
Residential Quarters (Private)
Other Commercial activities

*Note: as the area contains a waste dumping station, health and safety measures must be ensured. 1.14.3.3UFA 03 Agriculture

Mostly double/Triple cropped Agricultural Land. Agricultural land will be preserved, and No Development is permitted.

Issues and Problems

Mostly double/Triple cropped Agricultural Land

Opportunities

Fertile land

Action Required

- Preserve Agricultural land.
- No Development is permitted.

1.14.3.4Structure plan Policies for Urban Area

SDS 01. Priority should be given to the infill development in the subsisting civic areas with a view to saving resources needed for the development of infrastructures and community facilities.

From a development perspective redesigning the infrastructure facilities in built-up areas to cope with growing demand can always be very costly. The existing maximum density in urban areas is only 22 persons per acre, which are low in comparison to the of national standard 350 persons per acre. In rural areas, the average density is 4 people per acre. The low density indicates that there is space for development in current urban areas. Calculations show that the future population can be accommodated in the existing urban area through infill development. The positive side of this development policy is that it can save a large number of resources needed for infrastructure development in new areas.

SDS 02. The spatial development strategy should focus on conserving precious agrarian lands as part of

the natural development strategy. Thus, urban sprawling is to be discouraged.

Development will be discouraged in agrarian lands, especially in triple cropped and double cropped lands.

SDS 03. Urban development should be confined in and near ecologically sensitive areas to conserve ecology.

No development will be permitted in and near ecologically sensitive areas to conserve ecology.

TRN 1. Create mixed land-use areas that provide both places to live and work

Contemporary sustainable land use planning, also known as "Smart Growth," devotes time, attention, and resources to restoring community and vitality to CBDs and older suburbs. Mixed land use creates vibrant, vibrant neighborhoods/communities while reducing the need for long-distance travel and commuting. Short-distance travel also encourages the use of environmentally friendly alternatives such as walking and bicycling. Mixed land use provides the commercial foundation for viable public transportation. This would also mean limiting the creation of new, strictly single-use zones (like residential, commercial, etc.).

TRN 2. Avoid dispersed and scattered development patterns.

Dispersed and scattered development encourages 'sprawl' and increases travel. It increases the demand for more transportation corridors, resulting in increased traffic. As a result, avoiding and discouraging this type of development through various policy measures would help reduce the number of new trips created.

HDS 01. Housing provision should be available for all.

Financial facilities need to be given to the low- and middle-income group to construct proper houses for themselves. It is necessary to undertake a policy to construct houses for the low-income people and to deliver it to them with some easy installments which will improve the overall housing situation of the area. Public and private housing sector should work in close co-ordination to meet the future demand for housing. Existing public and private financial institutions need to revise their rules and regulations to provide loan facilities for construction of houses for the low- and middle-income group.

1.14.3.5Guidelines for Urban Area

G1. Ensure provision for parks, green spaces, and conservation areas as part of green infrastructure to preserve natural resources.

G2. Prioritize public transport, pedestrian, and cycling-friendly infrastructure for sustainable transportation.

G3. Identify and protect ecologically sensitive areas and implement green building practices for environmental protection.

G4. Encourage mixed-use developments that combine residential, commercial, and recreational spaces.

G5. Ensure housing options for diverse income groups to promote affordable housing.

G6. Involve residents and stakeholders in the planning process through community engagement.

G7. Implement designs to withstand natural disasters for disaster resilience.

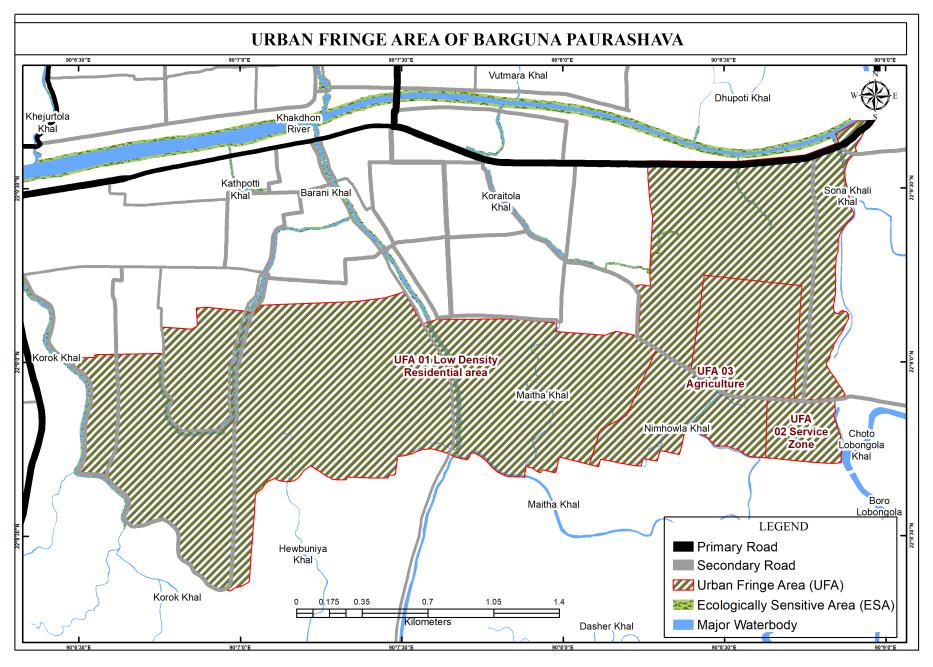
G8. Promote compact and efficient land use following smart growth principles.

G9. Develop effective waste disposal and recycling systems for waste management.

G10. Ensure sustainable water use and stormwater management to conserve water resources.

G11. Secure provision for economic development and local job opportunities to foster job creation.

G12. Provide essential amenities like schools and healthcare facilities as part of public services.



Map 0-5: Urban Fringe Area (UFA) of Barguna Urban Area

1.14.4 New Urban Area (NUA)

The new urban area refers to planned development zones or areas designated for future urbanization. These regions are often located on the outskirts of the existing urban area or within the urban fringe. New urban areas are developed to accommodate population growth and meet the demands of urban expansion. They are carefully planned with comprehensive land use regulations, infrastructure development, and public services to ensure sustainable and organized growth while avoiding the issues associated with haphazard urban sprawl. (Map: 4.5)

1.14.4.1NUA 01 Industrial Zone

Located in the southern part of Barguna Sadar Road and Khakdun River. Existis BACIC Area is located here.

Issues	and Problems
•	Existing BSCIC area in a small portion
•	Single cropped/double cropped Agricultural land.
•	Low density rural settlement
Oppo	rtunities
	Low density development

- High land
- Proximity to the existing urban area
- Major road forms the boundary

- Develop infrastructures required for industrial development.
- Ensure that only those industries that can be considered as "good neighbors" are allowed to develop within the New Urban Area presented in Map 4.5
- Ensure that general large scale nonpolluting industries are able to function in a conducive, non-pollutant environment.
- Ensure that polluting (but not necessarily noxious) industries are developed in appropriately serviced industrial areas; and
- Ensure that noxious industries are located on appropriately serviced land where their processes are unlikely to impact upon other land uses.

1.14.4.1.1 Allowable industries:

Sl. No.	Туре	
1.	Green Category Industry	
2.	ORANGE-A Category Industry	
3.	ORANGE-B Category Industry	

*Note: Industrial Classification of Department of Environment (DoE) is given in the Annexure 02

Restrictions:

Red Category Industries are prohibited.

1.14.4.2NUA 02 Low Income Housing

A huge number of employments will be generated from the EPZ. But these huge number of working-class people will need affordable housing facilities close to the EPZ area. Proposed area for low-income housing will provide that opportunity.

Issues and Problems

- Semi-urban area
- Low/moderate density
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve

Opportunities

- Low density development
- High land
- Proximity to the existing BSCIC area and proposed EPZ
- Proximity to Major Road (Barishal-Barguna Highway).

- Identify the alignment of proposed road and roads that need upgradation.
- Initiate community-based awareness program to preserve and protect water bodies.
- 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.
- Ensure water supply, power, and other infrastructure to uplift living standard.

1.14.4.2.1 Planning Guidelines & Permitted Uses of Low-Income Housing

Table 0-22: Permitted Uses of Low-Income Housing

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-23: Restricted Use for Low-Income Housing

Industry & Manufacturing	Uses harmful for Health & Safety

1.14.4.3NUA 03 Resettlement and Relocation Zone

Adjacent to Barguna Sadar Highway. This zone will be used for Resettlement and Relocation purposes.

Issues and Problems

- Rural area
- Low/moderate density
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve

Opportunities

- Very low density of population
- Ample space for new development
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve
- Low density development
- High land
- Proximity to the existing BECIC Area
- Proximity to Proposed Eco-Resort Area
- Proximity to proposed low-income housing.
- Major road forms the boundary

- Identify the alignment of proposed road and roads that need upgradation.
- Defer development activities on land reserve required for new road and road up-gradation.
- This area should be used for relocation and resettlement.
- Defer development activities on land reserve required for new road and road up-gradation.
- Pursue different government agencies to prepare infrastructure plan before development takes

1.14.4.3.1 Planning Guidelines & Permitted Uses of Resettlement and Relocation Zone

Table 0-24: Permitted Uses of Resettlement and Relocation Zone

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-25: Restricted Use for Resettlement and Relocation Zone

Industry & Manufacturing	Uses harmful for Health & Safety
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1.14.4.4NUA 04 Eco-Resort Area

This portion of the project area is bounded by the Ecologically Sensitive Areas. The plans for Barguna Paurashava set high priority on local ecosystem. There should be minimum disturbance to the local ecosystem.

Issues and Problems

- Rural area
- Low density
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve
- The western side of the zone is bordered with Canal and ecologically sensitive area.
- Barishal-Barguna road passed through the northern side.

Opportunities

- Low density development
- Proximity to the Canal.
- Proximity to existing Eco-Tourism Site
- High potential area for ecotourism development.

- Identify land reserve for implementation of Ecologically Sensitive Area.
- Initiate community-based awareness programs to preserve and protect the ecosystem.
- Initiate community-based actions to prepare local development plan.
- Promote and market the zone.

- Pursue different government agencies to prepare infrastructure plan before development takes place.
- Prepare Local Area Plan on priority basis to restore the present character and enhance its market value as tourist destination.

1.14.4.4.1 Planning Guidelines & Permitted Uses of Eco-Resort Area

Table 0-26: Permitted Uses of Eco-Resort Area

Cottage, Resort, Villas, Luxury/Budget Tent
Swimming Pool/Washroom
Fast Food Outlet/ Ice Cream Parlour
Indigenous Food Court
Health Club
Restaurants
Handicrafts/ Souvenir Shops
Open Air Stage for Performing Arts/ Music
Limousine Service
Other Recreational activities

Table 0-27: Restricted Use for Eco-Resort Area

Industry & Manufacturing	Uses harmful for Health & Safety

1.14.4.5NUA 05 River Side Activity Zone 01

This zone has developed as a strip between Barguna Sadar Road and Khakdun River. Potkakhali Shipyeard is located in the region. Because of the locational advantage of Khakdun river and Potkakhali Boat ghat, this place can be an ideal place for riverside side activities such as recreational and commercial purposes.

Issues and Problems

- Riverbank of Khakdun River.
- Mainly small business and low-density area.
- Criss-crossed by narrow lanes, which are of pedestrian scale.
- No significant activity

Opportunities

- Land and river connectivity.
- Enough vacant Land.

Action Required

- Market the area for private and public investment for the development of recreational and tourist based economic zones.
- Promote all investors to ensure that the area develops with a positive image of a gateway to Barguna Paurashava.

1.14.4.5.1 Key Ideas & Proposals at River side activity zone 01

- **River Cruises:** Enjoy a leisurely boat ride along the river, taking in the picturesque scenery, historical landmarks, and wildlife. River cruises often include narrations or guided tours to enhance the experience.
- Water Sports: Engage in water-based activities such as kayaking, canoeing, paddleboarding, or rafting. Rivers with suitable currents and rapids offer thrilling whitewater rafting adventures.
- **Fishing:** Rivers are often abundant with fish, providing opportunities for recreational fishing. Anglers can cast their lines and try their luck at catching various freshwater species.
- **Picnicking and Barbecues:** Riverside areas are ideal for picnics and barbecues. Set up a picnic spot, relax on the riverbank, and enjoy a meal with family and friends while appreciating the tranquil surroundings.
- **Hiking and Walking Trails:** Many riverside areas have well-maintained trails that allow visitors to explore the natural beauty and wildlife along the river. These trails can range from easy strolls to more challenging hikes.
- **Cycling:** Riverside paths often offer scenic routes for cycling enthusiasts. Rent a bicycle or bring your own and enjoy a ride while soaking in the riverside views.
- Wildlife Viewing: Rivers attract a diverse range of wildlife, including birds, mammals, and aquatic creatures. Visitors can observe and photograph the local fauna in their natural habitats.
- **Riverfront Dining:** Restaurants and cafes situated along the riverbanks provide a unique dining experience with stunning waterfront views. Enjoy a meal while watching the river flow by.
- **Riverfront Festivals and Events:** Many cities and towns organize festivals, concerts, or events along the riverfront. These gatherings often feature live music, food stalls, art exhibitions, and cultural celebrations.
- **Riverfront Parks and Gardens:** Riverside areas often have parks and gardens that offer green spaces for relaxation and recreation. Visitors can enjoy walking paths, open lawns, and landscaped gardens along the river.

1.14.4.6NUA 06 Planned Residential Area

The area falling in this zone is moderate density area with dispersed settlements. The entire zone would

be developed as a planned residential zone preferably in the form of multi-storied apartments, cluster

housing, row housing etc. Subdivision of land as in Sites and Services technique would have to be

avoided. A buffer of dense vegetation would surround the zone in order to keep its residential character undisturbed.

Issues and Problems

- Semi-urban area
- High/moderate density
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve

Opportunities

- High/moderate density development
- High land
- Proximity to Barishal-Barguna Highway
- High potential to grow following the existing growth pattern

Action Required

- Identify the alignment of proposed road and roads that need upgradation.
- Defer development activities on land reserve required for new road and road up-gradation.
- Initiate community-based awareness program to preserve and protect water bodies.
- Initiate community-based actions to prepare local development plan.
- Pursue different government agencies to prepare infrastructure plans before development takes place.

1.14.4.6.1 Planning Guidelines & Permitted Uses of Planned Residential Area

Table 0-28: Permitted Uses of Planned Residential Area

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-29: Restricted Use for Planned Residential Area

Industry & Manufacturing	Uses harmful for Health & Safety
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1.14.4.7NUA 07 Mixed Use Zone

This zone consists of a buffer of 200 Meter from Barishal-Barguna Highway. The area currently occupied as low-density residential area, some small commercial activity and rest of it is agricultural land. Also,

Northan side of Khakdun River with spontaneous residential and commercial development. The area is Highly potential for commercial activity as well as residential use.

Issues and Problems

- A buffer to 200 Meter from Barishal-Barguna Highway
- spontaneous residential development.
- Northan side of Khakdun River
- spontaneous residential and commercial development.

Opportunities

- Low density development dominates the zone.
- Highly potential for commercial activity

Action Required

- Initiate community-based actions to prepare local development plan.
- Pursue government agencies to prepare infrastructure plans before development takes place.
- Prepare Action Area Plan on priority basis.

1.14.4.7.1 Planning Guidelines & Permitted Uses of Mixed-Use Zone

Table 0-30: Permitted Uses of Mixed-Use Zone 02

Residential Quarters (Govt.)	Orphanage	Hostel/Mess	Residential House
Residential Quarters (Private)	Rest House	Grocery shop	Other Activity related to residential purpose

Table 0-31: Restricted Use for Mixed-Use Zone

Industry & Manufacturing	Uses harmful for Health & Safety

1.14.4.8NUA 08 Urban Deferred Area

This area will be kept reserved for new urban development. Detailed planning has to be done in this area for proper urban expansion.

Issues and Problems

- Rural area
- Low density

- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve

Opportunities

- Low density development
- Adjacent to area for terminal and Power station
- Proximity to the proposed planned residential Area

Action Required

- Identify the alignment of proposed road and road those need up-gradation.
- Initiate community-based awareness program to preserve and protect water bodies.
- Defer development activities on land required for new road.
- Preserve land for future development

1.14.4.9NUA 09 Park and Open Space Zone

This zone has a very potential riverfront location that can be developed into an area devoted to the recreation and amusement of Paurashava dwellers and visitors. This zone would be earmarked for amusement purposes in the form of park and greenery.

Issues and Problems

- Mostly vacant
- River front location
- Children & Amusement Park
- Almost the entire zone is occupied by Abandoned Brick Fields and most of the land is underutilized.

Opportunities

- Land and river connectivity.
- Public Demand for the location.

Action Required

- Prepare an action plan.
- The area should be designed to take advantage of the magnificent location of the river front.

1.14.4.10 NUA 10 River Side Activity Zone 02

This area has evolved as a linear strip located between Barguna Sadar Road and Khakdun River, with the Potkakhali Shipyard situated within its boundaries. The strategic positioning along the Khakdun River

and the presence of Potkakhali Boat Ghat make it an ideal location for various riverside activities, including both recreational and commercial purposes. The accessibility to the river and the shipyard offers unique opportunities for developing vibrant waterfront spaces that cater to the needs of the community and visitors alike.

Issues and Problems

- Riverbank of Khakdun River.
- Mainly small business and low-density area.
- Criss-crossed by narrow lanes, which are of pedestrian scale.
- No significant activity

Opportunities

- Land and river connectivity.
- Enough vacant Land.

Action Required

- Market the area for private and public investment for the development of recreational and tourist based economic zones.
- Promote all investors to ensure that the area develops with a positive image of a gateway to Barguna Paurashava.

1.14.4.10.1 Key Ideas & Proposals at River side activity zone 02

- **River Cruises:** Enjoy a leisurely boat ride along the river, taking in the picturesque scenery, historical landmarks, and wildlife. River cruises often include narrations or guided tours to enhance the experience.
- Water Sports: Engage in water-based activities such as kayaking, canoeing, paddleboarding, or rafting. Rivers with suitable currents and rapids offer thrilling whitewater rafting adventures.
- **Fishing:** Rivers are often abundant with fish, providing opportunities for recreational fishing. Anglers can cast their lines and try their luck at catching various freshwater species.
- **Picnicking and Barbecues:** Riverside areas are ideal for picnics and barbecues. Set up a picnic spot, relax on the riverbank, and enjoy a meal with family and friends while appreciating the tranquil surroundings.
- **Hiking and Walking Trails:** Many riverside areas have well-maintained trails that allow visitors to explore the natural beauty and wildlife along the river. These trails can range from easy strolls to more challenging hikes.
- **Cycling:** Riverside paths often offer scenic routes for cycling enthusiasts. Rent a bicycle or bring your own and enjoy a ride while soaking in the riverside views.
- Wildlife Viewing: Rivers attract a diverse range of wildlife, including birds, mammals, and aquatic creatures. Visitors can observe and photograph the local fauna in their natural habitats.
- **Riverfront Dining:** Restaurants and cafes situated along the riverbanks provide a unique dining experience with stunning waterfront views. Enjoy a meal while watching the river flow by.

- **Riverfront Festivals and Events:** Many cities and towns organize festivals, concerts, or events along the riverfront. These gatherings often feature live music, food stalls, art exhibitions, and cultural celebrations.
- **Riverfront Parks and Gardens:** Riverside areas often have parks and gardens that offer green spaces for relaxation and recreation. Visitors can enjoy walking paths, open lawns, and landscaped gardens along the river.

Industry & Manufacturing	Uses harmful for Health & Safety	

1.14.4.11 NUA 11 Institutional Zone

This area is located beside Barishal-Barguna highway and close to Barguna Central Bus Terminal. This

area is currently agricultural land. Due to public demand, a university has been proposed in this area.

Issues a	and	Probl	ems
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- Mostly vacant and agricultural land
- Lack of internal connectivity

Opportunities

- Connected to Barisal-Barguna Highway
- Land availability

Action Required

• Construction of Internal Road and other infrastructure to support the need of a university.

1.14.4.12 NUA 12 Service Zone

This is the new waste dumping and management site of Barguna Paurashava.

Issues and Problems

- Mostly vacant and agricultural land
- Lack of internal connectivity

Opportunities

- Existing Waste dumping and management site
- Land availability

Action Required

 Construction of Roads and other infrastructure to support the need of a waste management site.

1.14.4.13 NUA 13 Area with Rural Characteristics

Mostly Low/moderate density Rural Area.

Issues and Problems

- Mostly Rural Area
- Low/moderate density
- Spontaneous development without proper infrastructure provision
- No initiative for provision of infrastructure reserve

Opportunities

- Cultural Values
- Healthy environment
- Healthy Living.

Action Required

- Preserve rural characteristics.
- Development should support rural livelihood.
- Provide modern amenities without disturbing rural characteristics.

1.14.4.13.1 Planning Guidelines & Permitted Uses in Area with Rural Characteristics

Table 0-33: Permitted Uses of Area with Rural Characteristics

Homestead Settlements
Residential Quarters (Private)
Retail shops
Restaurants
Residential Hotels
Bazar and growth Centers
Agriculture
Recreational Activities
Education and Research
Other Commercial activities

Table 0-34: Restricted Use for Area with Rural Characteristics

Industry & Manufacturing that is harmful for Health & Safety

1.14.4.14 NUA 14 Agricultural

Mostly double/Triple cropped Agricultural Land. Agricultural land will be preserved, and No

Development is permitted.

Issues and Problems

Mostly double/Triple cropped Agricultural Land

Opportunities

Fertile land

Action Required

- Preserve Agricultural land.
- No Development is permitted.

1.14.4.15 Structure Plan Proposals for New Urban Area:

ED.08 Transforming the BSCIC estate into a commercial & industrial area

The BSCIC estate has been set up much before our independence in 1971 but could not draw optimum number of entrepreneurs till now. The surrounding area of this industrial estate is residential area. If this estate is declared as commercial cum industrial area, then it is expected that trading houses, business centers will be set up and the existing industries also be operated side by side as is found Tejgaon Industrial area of Dhaka. Moreover, some residential quarters may be established for low-income people.

CON.01 Identify and preserve Ecologically Critical Area (ESA)

Major sites of ecological interest should be immediately identified and declared as ESA. Any development or activity that disrupts the local ecosystem of the area must be prohibited. Because any disturbance in these areas can propagate and affect the environment of the entire region.

H&S.05 Present land division trend needs to be discouraged, especially restricted for single developer and large built able land. Emphasis to be given to establishing cluster of housing units.

Construction of high-rise buildings will be controlled. Building height restriction will be imposed within the Barguna Paurashava boundary to control the vertical development of the Paurashava. However, limited high rise residential building will be permitted in designated areas identified by the planning authority. Barguna Paurashava area will be divided into different height zones and construction permission will be given according to the height zones.

More people can be accommodated in the same area of land if high rise building is encouraged but strict policy has to be taken to accommodate low- and middle-income groups in those towers. Cluster housing can be made in the form of multi storied structures, row houses etc. instead of land sub-division. ULD.09 Provide infrastructure in newly expanding urban areas with two folds objectives: to encourage concentration of development within the newly expanded urban area and to control environmental burden on the ecology at a sustainable level.

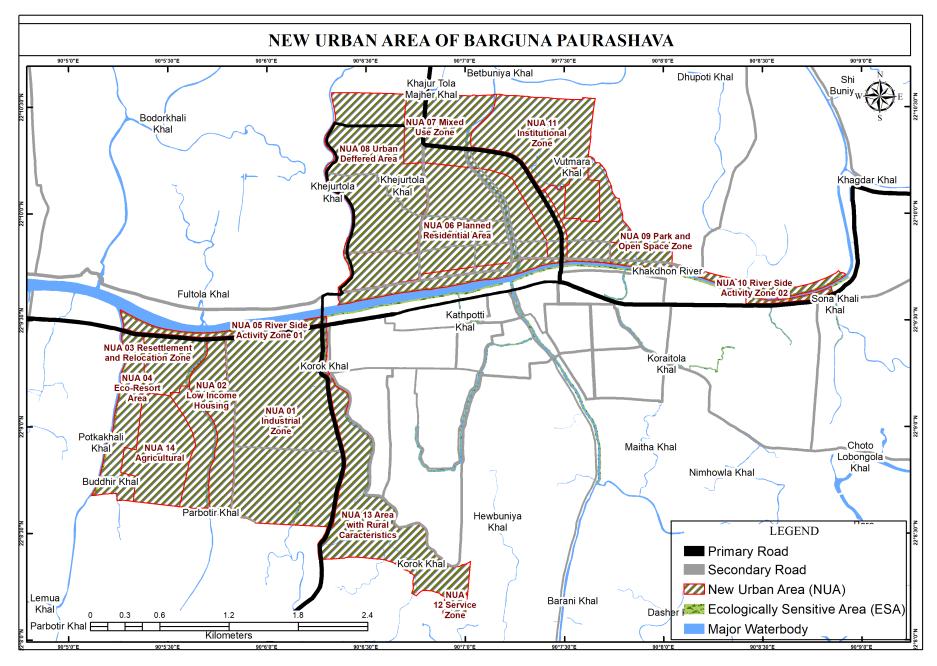
Infrastructure development plan can be used as an effective tool to increase concentration of development as determined in this Structure Plan. While providing infrastructure it should be kept into account that ecology has a limit to take environmental burden; therefore, infrastructure to be provided at a sustainable manner.

1.14.4.16 Guidelines for New Urban Area

GNUA.01 Adequate infrastructure & services needs to be provided as urbanization process is in operation in this area.

GNUA.02 Ecologically sensitive areas will be protected with strict control.

GNUA.03 In Riverside activity zone, structure height should be limited to two storied or equivalent.



Map 0-6: New Urban Area (NUA) of Barguna Urban Area

1.14.5 General Guidelines for Development Promotion & Control

G-1	Structure / Building must be constructed in compliance with the Barguna Urban Area Plan Road
	Network Proposal. For individual building, setback must be calculated by considering the
	Proposed width of the adjacent road.

G-2 Required green space & Open space have to be kept according to real estate development law while large area land development takes place.

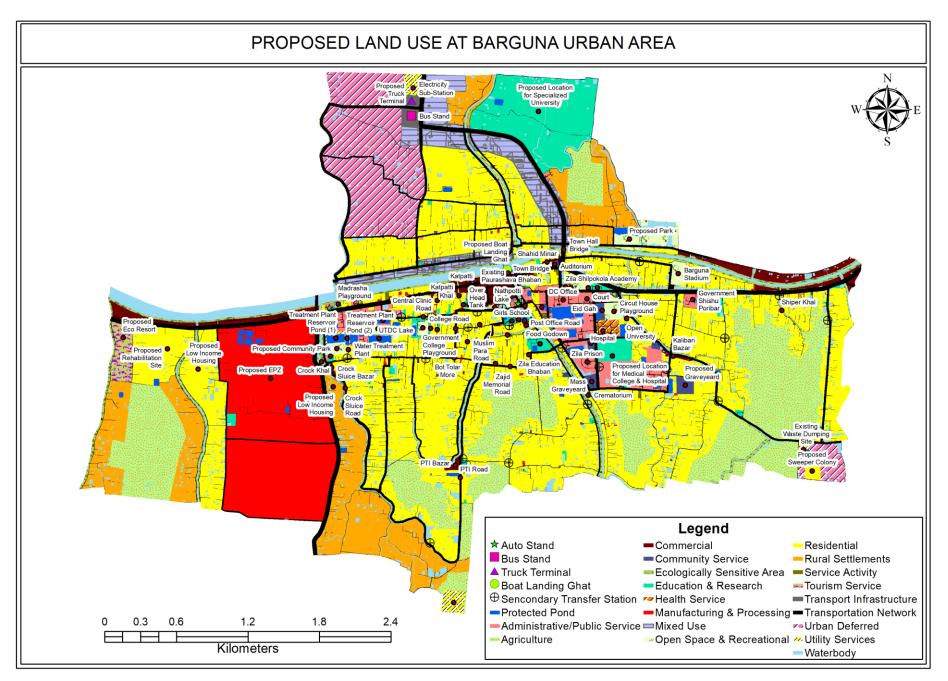
- **G-3** Natural waterbody & declared Protected Pond in Barguna Urban Area Plan shall remain free regarding any kind of physical Development.
- G-4 No Permanent Structure in Ecologically Sensitive Area (ESA)
- **G-5** Ponds larger than 1 bighas (0.33 acres) have been declared as protected ponds. Under no circumstances, these protected ponds can be filled up.

1.14.6 Proposed Land use:

Considering the rapid urbanization pattern and local demand the following land use has been proposed for Barguna Urban Area.

Proposed Land use	Area in Acre	Percentage
Administrative/Public Service	102.41	2.58
Agriculture	523.51	13.19
Commercial	65.90	1.66
Community Service	20.20	0.51
Ecologically Sensitive Area	84.41	2.13
Education & Research	174.39	4.39
Health Service	5.64	0.14
Manufacturing & Processing	336.85	8.49
Mixed Use	112.75	2.84
Open Space & Recreational	44.44	1.12
Residential	1234.27	31.10
Rural Settlements	311.25	7.84
Service Activity	5.50	0.14
Tourism Service	19.09	0.48
Transport Infrastructure	9.26	0.23
Transportation Network	348.44	8.78
Urban Deferred	225.35	5.68
Utility Services	20.20	0.51
Waterbody	324.58	8.18
Total	3968.46	100.00

Table 0-35: Proposed Land Use for Barguna Urban Area



Map 0-7: Proposed Land use Map of Barguna Urban Area

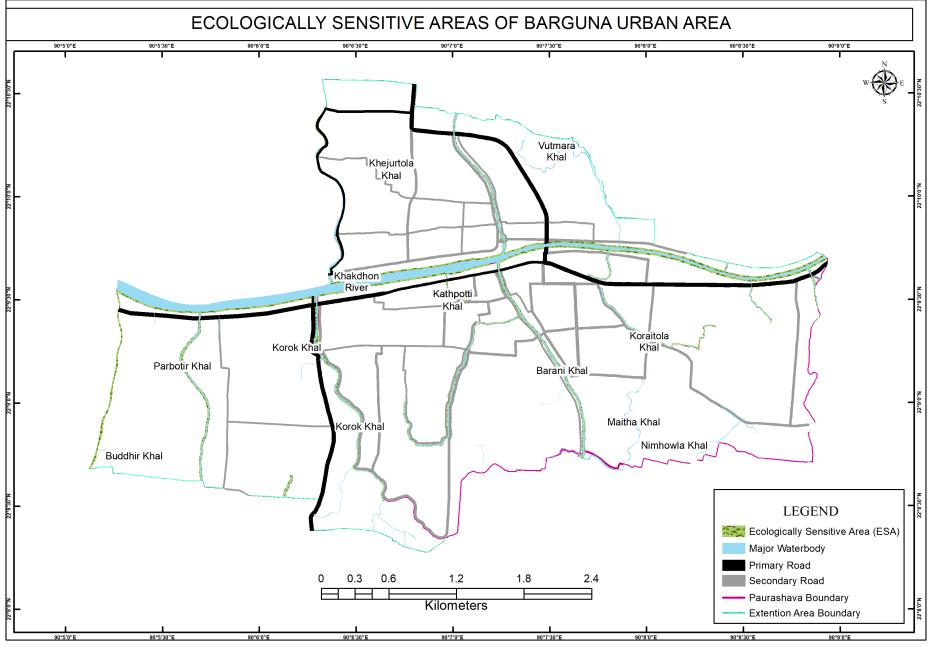
1.14.7 Ecologically Sensitive Area (ESA)

Barguna Urban area is crisscrossed by lots of ecologically sensitive elements like canal & River. People used to give importance to the major river. People used to consider the river to be preserved but they ignore the canal entirely. Therefore, these canals have gradually become encroached & expired at the end. We accustomed to forgetting the thing that these canal Plays a vital role as natural drainage system & irrigation purpose. If we encroach the canal, it will arise water logging, less yield of Argo product, Environmental degradation etc. At present Barguna Urban area is facing this kind of problem due to this canal encroachment. Again, these canals could be a very good alternative as an interesting transportation network & recreational element. Therefore, in Barguna Urban Area plan the major canal along with a buffer area by the two side has been declared as Ecologically sensitive Area. 50-feet buffer zone from the river stream and a 15-feet buffer zone from the canal stream has been declared as Ecologically Sensitive Area (ESA). The declaration holds significant importance for environmental protection and sustainable development. Here are some of the key significances of this measure:

- 1. Rivers and canals play a crucial role in supporting riparian ecosystems, which are home to a diverse range of plant and animal species. By declaring these buffer zones, the natural vegetation along the water bodies can be conserved, providing habitat for wildlife and preserving biodiversity.
- 2. The buffer zones act as a natural filter for pollutants and sediments that could otherwise enter the water bodies. They help to improve water quality and protect the rivers and canals from pollution caused by urban activities and runoff.
- 3. Vegetation in the buffer zones helps stabilize the soil along the river and canal banks, reducing erosion and preventing sedimentation that could negatively impact water flow and aquatic habitats.
- 4. These natural areas can serve as recreational spaces for residents and visitors, providing opportunities for outdoor activities, relaxation, and appreciation of nature within the urban landscape.

1.14.7.1Guidelines of Ecologically Sensitive Area (ESA):

- 1. No garbage (solid/liquid) is to be disposed into the Ecological Sensitive Area (ESA)
- 2. All Canals need to be rehabilitated through eviction & excavation.
- 3. Canals could be excavated by following mouza map, if possible, otherwise natural direction as the plan required.
- 4. Provide Pedestrian walkway on both sides of canal where cycling is allowed.
- 5. Preserve natural forest on both side of canal & take afforestation scheme where natural forest is absent.
- 6. Put in bridge with proper design instead of culvert where necessary by considering the tide & the height of water transport.
- 7. Relocation of People who are affected by eviction & excavation program with justified compensation.
- 8. Development activity in Ecologically Sensitive Zone must comply with the points 4 & 5 & Forest & Water body Conservation act, 2000.



Map 0-8: Ecologically Sensitive Areas (ESA)

TRAFFIC & TRANSPORTATION

1.15 Hierarchy of Roads

1.15.1 General Hierarchy of Road at Barguna Paurashava

In Barguna Paurashava Area there is only a regional road that is Barisal-Barguna highway. The regional road itself connects Barguna to Divisional Town Barisal. Therefore, no zila road is available in Barguna Paurashava. After that Union Road & Village Road complete the mobility here. The Common Road category in Bangladesh is as follows.

 National highways 	 Zilla roads 	 Union roads
 Regional highways 	 Upazila roads 	 Village roads

5.1.2 Functional Hierarchy of Barguna Paurashava Road Network

In Barguna Paurashava the road importance is based on not only regional connectivity or upazila connectivity but also the functionality as well. The main function is to enter into the Paurashava and access the two feri terminal on Payra and Bishkhali rivers. Therefore, the road that connects the main function will surely be treated as main road or primary road. Moreover, there are some other important roads connecting important locations. As these roads are categorically union road or even village road but the amount of movement is pretty high, so the importance of widening or improving the road surface is also higher due to the function it plays. According to the function & proposed road width Barguna Paurashava road network is segmented into the following functional hierarchy.

1.15.1.1Primary Road

The primary road at Barguna Paurashava area usually connects the Paurashava with Divisional town Barisal as well as two riverine feri & create mobility among the important local locations within. It works as the main backbone of the transport network. Generally, the carriage way proposal of the primary road for Barguna Paurashava area lies into 80 -120 feet. The Barisal -Barguna highway is the key primary road here. Barguna Paurashava master plan proposes Barisal-Barguna highway for promoting 120 feet instead of its present width 24 feet. But within Paurashava, the with will be reduced to 80 feet.

1.15.1.2Secondary Road

Secondary roads are connected to one or more primary roads with a proposed width range of 60-80 feet. These roads are narrower compared to primary roads and serve as connectors between major routes. These roads generally have fewer lanes and are intended to accommodate less volumes of

traffic compared to primary roads. Chairman Road, Char Colony Road Circuit House Road, Collage Brach Road, Collage Road, Collage School Road, etc. are some of the major Secondary roads.

1.15.1.3Tertiary Road

Tertiary roads are connected to one or more Secondary roads with proposed width range of 30-60 feet. These narrower roads primarily serve local connectivity within specific area and are intended to accommodate less volumes of traffic compared to Secondary roads.

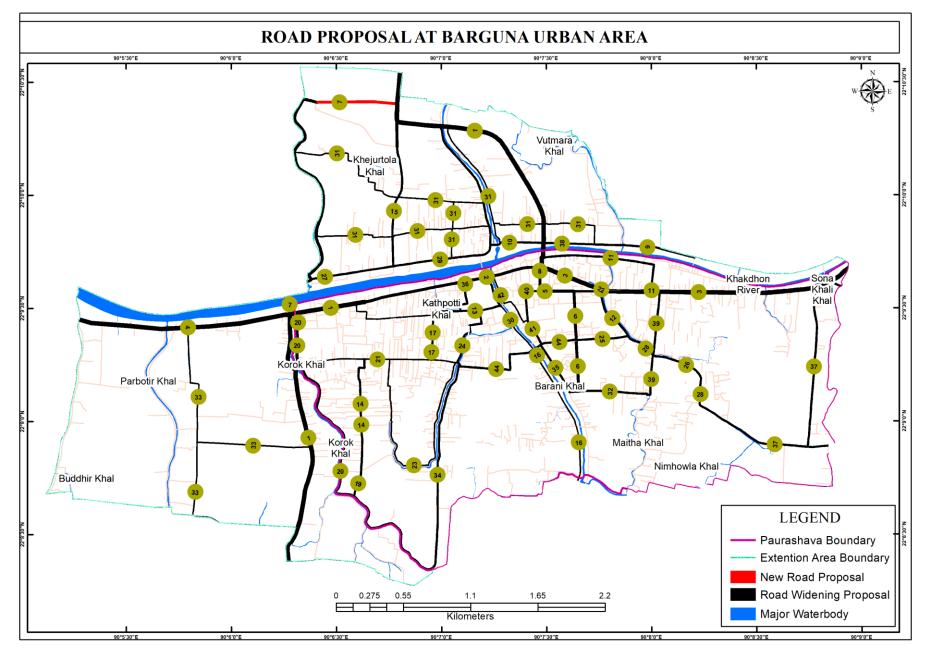
1.15.1.4Local Access Road

These roads are typically found within community level or areas with low population density. They are intended for local traffic and primarily provide access to individual properties or local amenities.

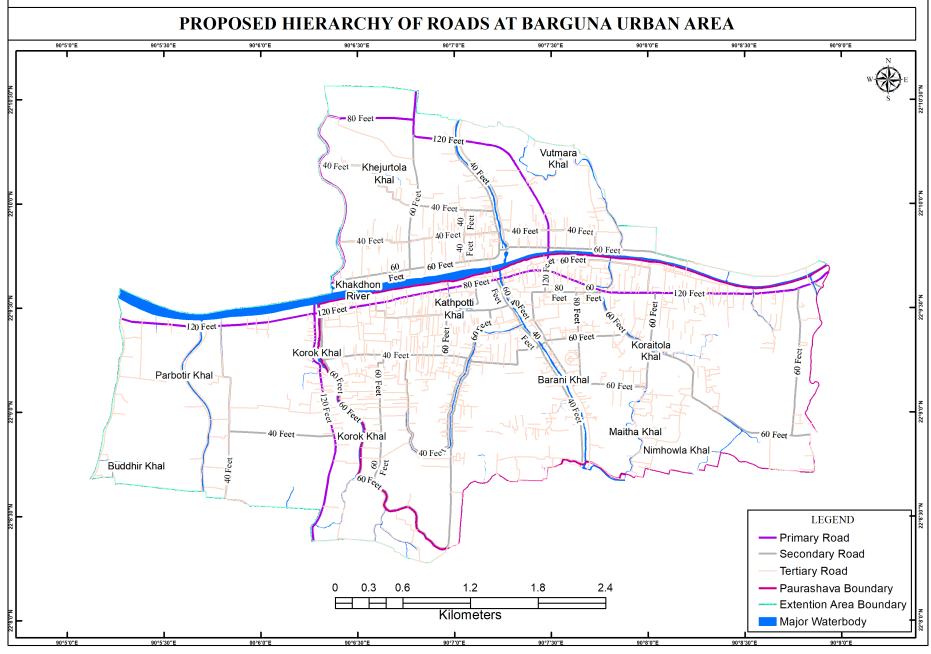
1.16 Transportation Proposal (Major Road) for Barguna Paurashava area

Road ID	Road_Name	Road Class	Existing Width(ft)	Proposed Width(ft)	Approx. Length(km)
1	Barishal Barguna Highway Part 01	Primary Road	40	120	5.1
2	Barishal Barguna Highway Part 02	Primary Road	40	80	1.48
3	Barguna Ferighat Road	Primary Road	15	120	2.59
4	Barguna Road	Primary Road	14	120	1.8
5	DC Office Road Part 02	Primary Road	14	80	0.27
6	Jailkhala Road	Secondary Road	13	80	0.81
7	Proposed Bypass Road	Primary Road	10	80	2.68
8	Sultan Ali Road	Secondary Road	16	80	0.19
9	Bhot Mora Road	Secondary Road	13	60	0.79
10	Chairman Road	Secondary Road	13	60	0.29
11	Char Colony Road	Secondary Road	14	60	1.13
12	Circuit House Road	Secondary Road	14	60	0.45
13	Collage Road	Secondary Road	16	60	0.35
14	Collage School Road	Secondary Road	12	60	0.82
15	Connecting Road to Barguna-Barisal Highway	Secondary Road	18	60	1.21
16	Abdul Kader Road	Secondary Road	13	40	1.17
17	Collage Brach Road	Secondary Road	14	60	0.6
18	Connecting Road to Barishal Barguna Highway and College Road	Secondary Road	14	40	0.75
19	Crock Primary School Road	Secondary Road	14	60	0.36
20	Crock Road	Secondary Road	15	60	4.21
21	D.K.P Road	Secondary Road	14	40	1.3
22	DC Office Road Part 01	Secondary Road	14	60	0.23
23	Dhansiri Road	Secondary Road	13	40	2.05
24	DKP Connecting Road	Secondary Road	14	40	0.55

25	Hospital Road	Secondary Road	18	60	0.43
26	Kali Bari Road	Secondary Road	15	60	0.31
27	Khejurtola Road	Secondary Road	11	60	0.12
28	Kodoitola Road	Secondary Road	15	60	0.89
29	Lakurtola Road	Secondary Road	15	60	2.5
30	Madrasha Road	Secondary Road	21	40	0.71
31	Other Connecting Roads	Secondary Road	13	40	5.79
32	Police Line Road	Secondary Road	20	60	0.67
33	Proposed EPZ Internal Road	Secondary Road	12	40	2.75
34	PTI Road	Secondary Road	12	60	1.73
35	Shahid Smriti Road	Secondary Road	12	60	0.45
36	Sher-e-Bangla Road	Secondary Road	16	60	0.29
37	Sona Khali Road	Secondary Road	15	60	2.19
38	South Monsi Tola Road	Secondary Road	14	60	0.61
39	Staff Quater Road	Secondary Road	10	60	0.84
40	Thana Para Road	Secondary Road	16	60	0.12
41	Thana Road	Secondary Road	14	60	0.47
42	Thana Road to Townhall Bridge Connecting Road	Secondary Road	12	40	0.53
43	West Dhupoti Road	Secondary Road	12	60	0.1
44	Zilla School Road	Secondary Road	13	60	1.1



Map 0-1: Proposed Transportation Network in Barguna Urban Area



Map 0-2: Proposed Road Hierarchy of Barguna Urban Area

DRAINAGE NETWORK

1.17 Drainage Outfall, Stream, and Watershed Boundary:

A study has been conducted to delineate drainage catchments in Barguna urban area using the digital elevation model (DEM) with a spatial resolution of 1m. However, for processing, the DEM was resampled into a course 10m resolution. The first step involved filling the sinks (depressions) in the DEM to create a hydrologically connected surface. This process involved raising the elevation of sink cells to match their downhill neighbors.

Flow direction was then determined by calculating the steepest slope for each cell and encoding eight possible flow directions towards surrounding cells. This 8-direction pour point model helped determine the flow path. Flow direction maps were used to create flow accumulation maps, counting the number of upstream cells contributing to the flow through each cell.

The stream network was delineated using the flow accumulation map, and it was divided into segments to identify the outlets of the basin. A threshold value of 4% of the longest flow path was used to determine the drainage network, and an extensive field survey was conducted to validate the accuracy of the delineated drainage network. Based on this threshold and field report information, they identified 10 sub-watersheds and 4 outlets in Barguna urban area, all of which were located on the Khakdon river within Barguna Paurashava. Some adjustments to the drainage network were made based on the field report data. (Map 6.1).

1.18 Drainage Proposal:

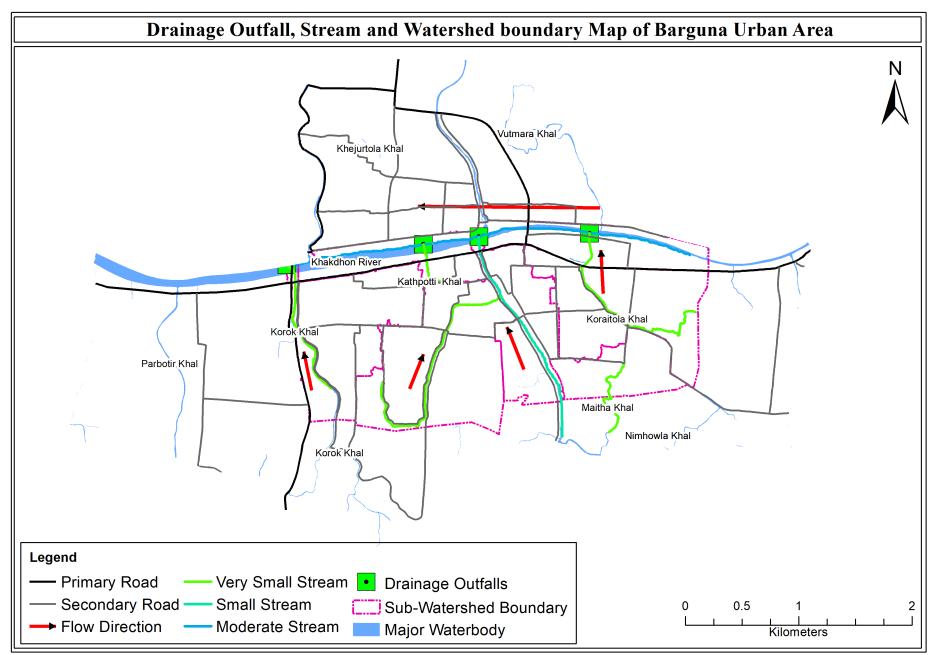
Barguna Paurashava has an existing functional drainage network but there are missing links and unserved areas. Through this drainage plan, missing links have been linked and unserved areas are covered with drainage coverage. Moreover, in new urban areas, there is no existing drainage coverage. Therefore, new drains have been proposed in this section of the urban area. (Map 6.2, 6.3)

Drain Type	Length in Meter
Existing Drain	39199.51
Proposed Drain	40008.94
Total	79208.45

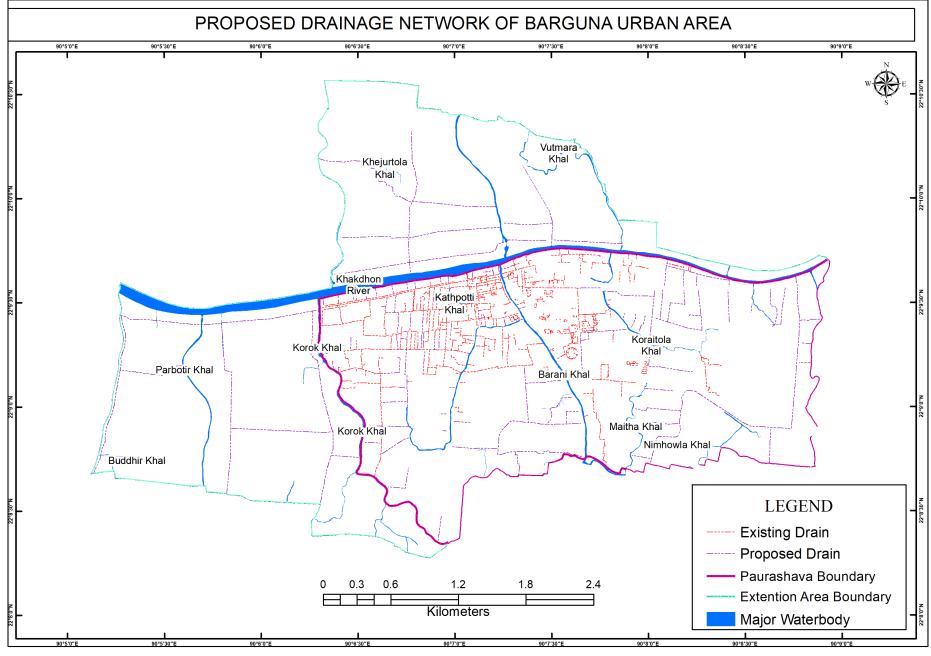
Table 0-1: Existing and Proposed Drain Statistics

Hierarchy	Length in Meter
Primary Drain	15701.42
Secondary Drain	20152.24
Tertiary Drain	43354.78
Total	79208.45

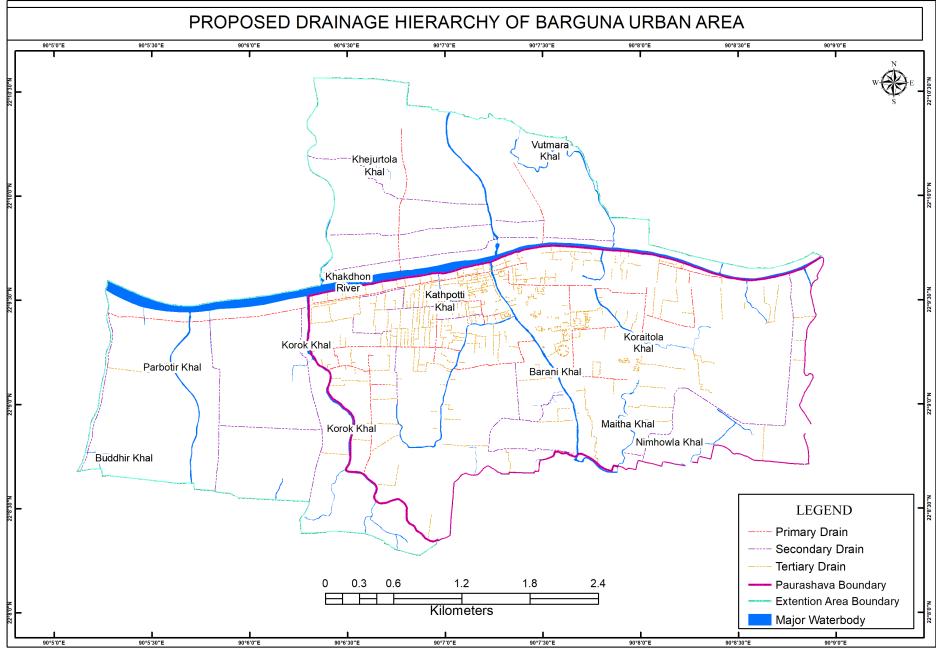
Table 0-2: Hierarchy of Drainage Network



Map 0-1: Drainage Outfall, Stream, and Watershed Boundary Map of Barguna Urban Area



Map 0-2: Drainage Proposal Map



Map 0-3: Hierarchy of Drainage Network Map

ACTION PLAN & WARD ACTION PLAN

1.19 Action Plan of Riverside Activity Zone

The Riverside Activity Zone is set to become a flourishing hub for leisure and tourism in the region, offering two carefully chosen sites nestled along the enchanting banks of the Khakdon River within the New Urban Area. With the allocation of 25.72 acres for Zone 01 and 36.30 acres for Zone 02, these areas have been thoughtfully designated to cater to a diverse array of riverside activities. To ensure environmental preservation, a green buffer of the Ecologically Critical Area will run alongside the riverbank, accompanied by a 5 feet wide walkway, a 10 feet wide cycling track, and an additional 5 feet wide walkway for visitors to traverse and revel in the natural beauty.

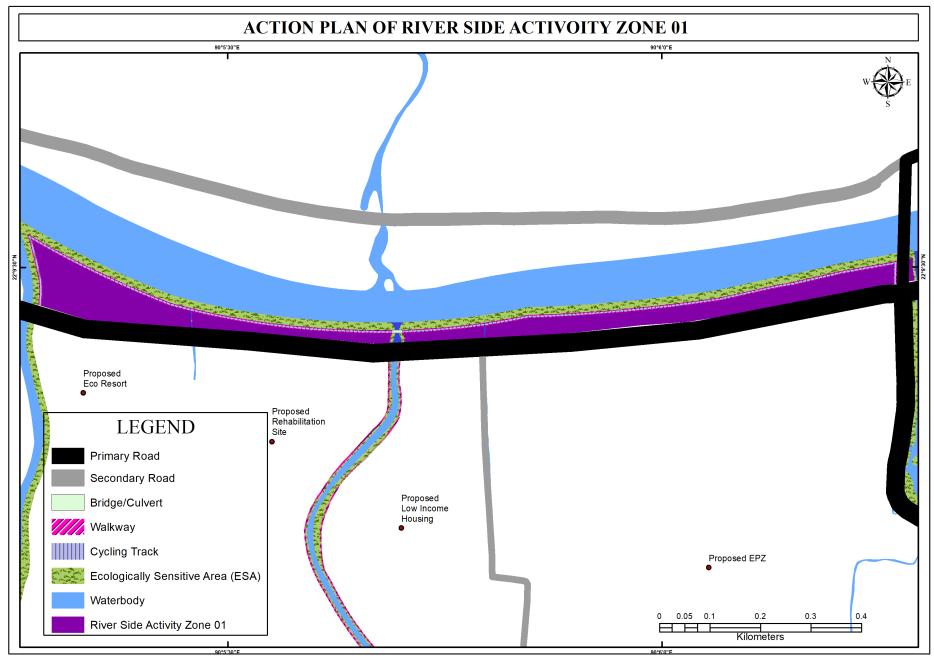
The Riverside Activity Zone is envisioned to become a vibrant and attractive destination for both locals and tourists, offering a wide range of activities and experiences centred around the Khakdon River. Here are some key ideas and proposals for the zone:

1.19.1 Key Ideas & Proposals at River side activity zone

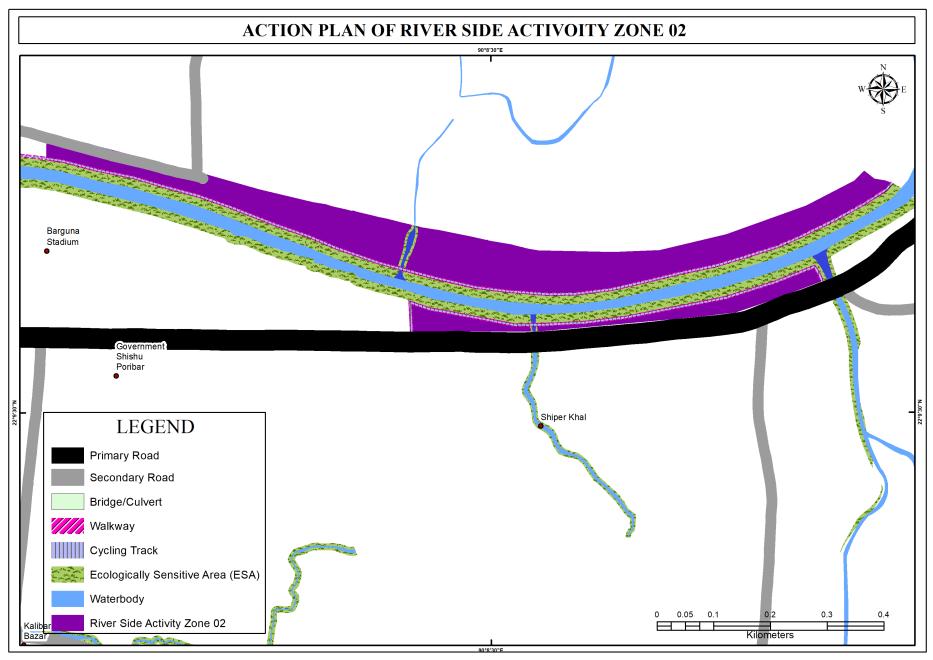
- **River Cruises:** Organize leisurely boat rides along the river, providing narrations or guided tours to educate visitors about the historical landmarks, local culture, and wildlife.
- Water Sports: Set up facilities for water-based activities such as kayaking, canoeing, paddleboarding, etc.
- **Fishing:** Designate fishing spots along the riverbank, where visitors can enjoy recreational fishing and try catching various freshwater species. Proper fishing regulations should be in place to ensure sustainable practices.
- **Picnicking and Barbecues:** Create designated picnic spots and provide barbecue facilities for visitors to relax, socialize, and enjoy meals while immersed in the natural beauty of the river surroundings.
- **Hiking and Walking Trails:** Develop well-maintained trails that meander along the river, catering to different difficulty levels to accommodate both casual strollers and avid hikers.
- **Cycling Paths:** Establish cycling tracks that offer scenic routes along the river, attracting cycling enthusiasts and promoting eco-friendly transportation options.
- Wildlife Viewing Stations: Set up viewing stations or observation points for visitors to watch and appreciate the diverse wildlife that thrives in the river ecosystem.
- **Riverfront Dining:** Encourage the development of restaurants and cafes along the riverbanks, providing unique dining experiences with stunning waterfront views.
- **Riverfront Festivals and Events:** Plan and host regular festivals, concerts, art exhibitions, and cultural events along the riverfront to foster a sense of community and attract more visitors.
- **Riverfront Parks and Gardens:** Create green spaces along the river, featuring parks, gardens, and recreational areas where people can relax, exercise, and connect with nature.
- Environmental Education: Implement educational programs and signage to raise awareness about the importance of environmental preservation and sustainable practices among visitors.
- Water Safety Measures: Prioritize the safety of visitors engaging in water activities by implementing proper safety measures, providing life-saving equipment, and monitoring river conditions.
- Accessible Infrastructure: Ensure that the riverside zone is easily accessible to people of all abilities, including wheelchair-friendly pathways and facilities.
- **Eco-friendly Initiatives:** Incorporate environmentally friendly practices in the zone's design and operations, such as recycling stations, energy-efficient lighting, and waste reduction strategies.

• **Local Partnerships:** Collaborate with local businesses, organizations, and community groups to enhance the overall experience and support the local economy.

By carefully implementing these ideas and proposals, the Riverside Activity Zone can fulfil its vision as a flourishing hub for leisure and tourism, attracting visitors from near and far while preserving the natural beauty and ecological balance of the Khakdon River.



Map 0-1: Action Plan of River Side Activity Zone 01



Map 0-2: Action Plan of River Side Activity Zone 02

1.20 Action plan of Varani Khal

Varani Khal holds a significant position in the Barguna Paurashava region, serving as one of its major canals. However, the once pristine waterway now faces an imminent threat due to the illegal occupation of its banks by Slums and Squatter Settlements. This unchecked encroachment has pushed the canal to the brink of extinction. To rescue the Varani Khal and restore it to its former glory, it is imperative to relocate the inhabitants of these settlements. A comprehensive plan has been devised, incorporating a Rehabilitation and relocation zone within the New Urban area.

The Varani Khal action area plan encompasses approximately 2 kilometers of the canal's stretch. Both sides of the waterway, covering nearly 8.3 acres of land, have been designated as an Ecologically Sensitive Area (ESA). This thoughtful measure aims to safeguard the delicate ecosystem around the canal, ensuring its sustenance and protection for future generations.

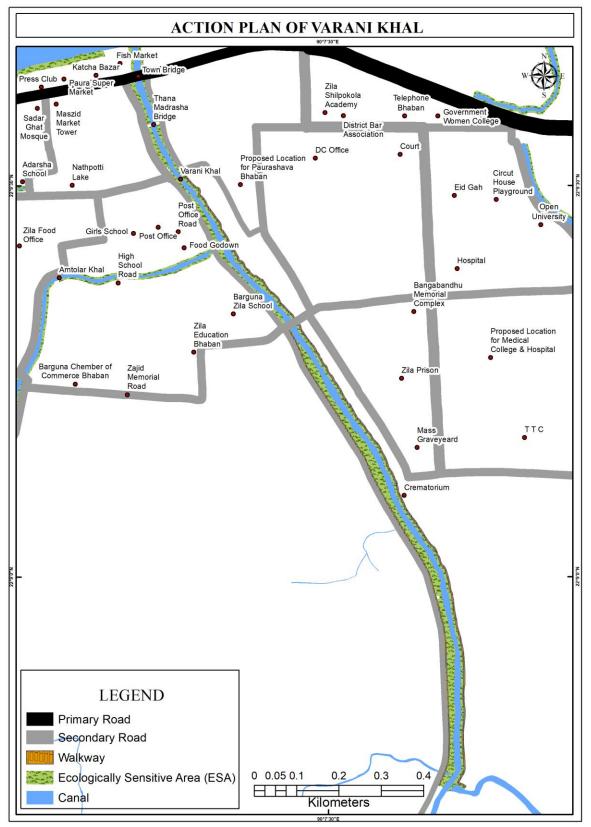
The restoration efforts go beyond merely reclaiming the canal's original state. The vision encompasses a transformation of the entire surroundings, enhancing its beauty and utility. The revitalization project envisions walkways for leisurely strolls, comfortable seating arrangements, and designated food corners, inviting locals and visitors alike to enjoy the serene ambiance of the rehabilitated canal.

Furthermore, the rejuvenated Varani Khal area is envisioned as a hub for social gatherings and interactions. It will foster a sense of community, providing a space for people to come together, exchange ideas, and strengthen bonds. This integration of social elements into the design fosters a vibrant and inclusive atmosphere.

By executing this comprehensive action plan, the Paurashava authority will be able to revive Varani Khal's ecological integrity while enhancing the quality of life for its residents and visitors. The plan reflects a balanced approach, considering both environmental preservation and the well-being of the local community. As a result, the once-endangered canal will serve as a symbol of progress and sustainability, embodying the harmonious coexistence of nature and human habitation. (Map 7.3)

1.20.1 Major Proposals

- Ecologically Sensitive Area (ESA)
- 10 feet wide walkway at both sides of the canal bank
- Sitting arrangements at convenient intervals (preferably at 100 feet interval).
- Boat ghats for canal safari.
- Lucrative bridges
- Food corners
- Selfie points



Map 0-3: Varani Khal Action Plan

1.21 Action Plan of Crock Khal

Crock Khal stands as a significant natural boundary, defining the western limit of the existing Paurashava area, and serving as the demarcation line for the New Urban region. Within the comprehensive action area plan, a stretch of approximately 2.19 kilometers of Crock Khal has been meticulously considered. Furthermore, an extensive area of 7.16 acres on both sides of the canal has been designated as an Ecologically Sensitive Area (ESA), prioritizing the preservation and conservation of the delicate ecosystem.

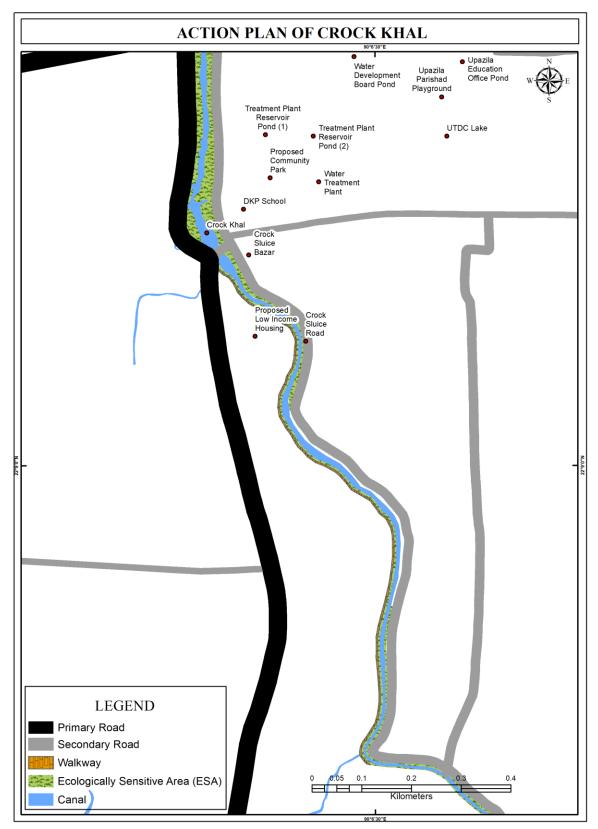
The overarching goal of this ambitious project goes beyond mere restoration of the canal; it aims to transform the entire vicinity into a picturesque and functional space. The rejuvenation plan envisions the creation of walkways, seating arrangements, and inviting food corners, providing locals and visitors alike the opportunity to revel in the serene ambiance of the rehabilitated canal area. Moreover, the rejuvenated Crock Khal area is envisioned as a lively venue for social gatherings and interactions, fostering a sense of community among residents and visitors alike. To accommodate the local workforce from the nearby Export Processing Zone (EPZ) area, the urban plan proposes the establishment of low-income housing along the western bank of the canal. This strategic positioning aims to maximize the benefits reaped by the occupants of these housing units.

Unlike Varani Khal, where walkways adorn both sides, the Crock Khal design will feature a five-foot walkway exclusively on its western side. This decision enables an optimized utilization of the canal's eastern bank while still ensuring that the western side provides a pleasant walkway experience for pedestrians.

Through this integrated approach, the plan strives to restore Crock Khal to its original state while transforming its vicinity into a vibrant and inclusive urban area. By providing low-income housing, fostering social interactions, and enhancing the canal's aesthetics, the plan exemplifies a thoughtful and sustainable model of urban development. As the western boundary of the New Urban area, Crock Khal will serve as a beacon of progress, offering a harmonious blend of nature, infrastructure, and community engagement for generations to come.

1.21.1 Major Proposals

- Ecologically Sensitive Area (ESA)
- 10 feet wide walkway at Western side of the canal bank
- Sitting arrangements at convenient intervals (preferably at 100 feet interval).
- Boat ghats for canal safari.
- Lucrative bridges
- Food corners
- Selfie points



Map 0-4: Crock Khal Action Plan

1.22 Action Plan of Parbotir Khal

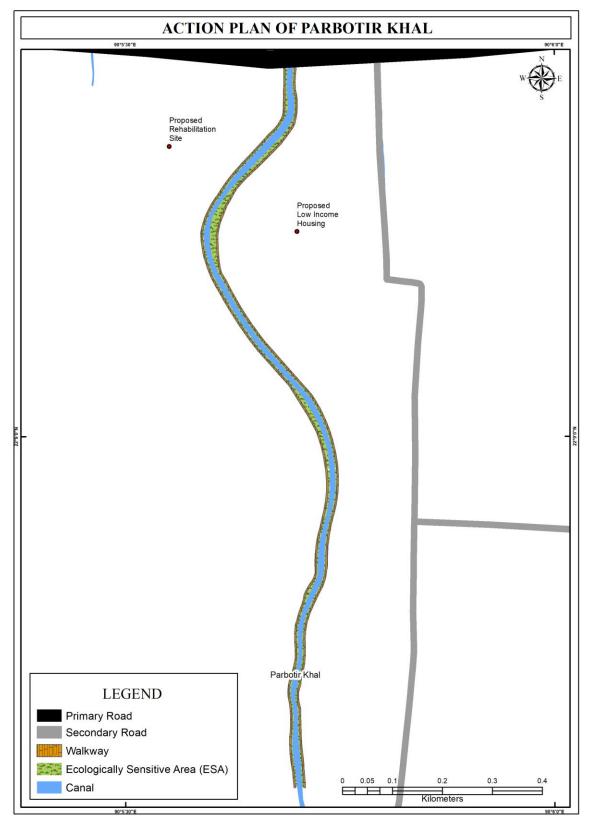
Parbotir Khal, a significant canal located within the new urban area, holds immense importance for various reasons. In the urban area plan, careful consideration has been given to the canal's location to address resettlement and relocation needs arising from development activities. A designated zone on the western bank has been allocated for those facing eviction or requiring relocation. On the eastern side of the canal, a low-income housing zone is planned, primarily catering to the workers of the nearby EPZ. However, both the rehabilitated individuals and the low-income group have limited access to recreational facilities, making the regeneration of Parbotir Khal into a recreational hub crucial to fulfilling their needs.

The comprehensive action area plan focuses on a 1.6 km segment of Parbotir Khal, with approximately 5.5 acres of land on both sides designated as the Ecologically Sensitive Area (ESA). This measure ensures the preservation of the delicate ecosystem, contributing to the overall sustainability of the project. Beyond the ecological aspect, the restoration plan aims to beautify the canal's surroundings, offering an array of amenities for the community's enjoyment. The vision includes walkways, comfortable seating arrangements, food corners, and designated spaces for social gatherings and interactions. By incorporating these elements, the revitalized Parbotir Khal will foster a vibrant atmosphere that encourages community cohesion and inclusivity. The recreational transformation of Parbotir Khal also serves as a vital link between the rehabilitated residents and the low-income workers, providing them with a common space to socialize and relax. This integration ensures that both groups can benefit from the canal's renewed charm and the sense of togetherness it fosters.

The regeneration of Parbotir Khal goes beyond its restoration as a canal; it symbolizes an effort to address the needs of the displaced and low-income communities. By creating a recreational hub with a focus on environmental preservation and community well-being, the project represents a holistic approach to urban development. As Parbotir Khal flourishes into a revitalized and inclusive space, it will stand as a testament to the successful integration of ecological sensitivity, aesthetics, and social inclusivity within the urban landscape.

1.22.1 Major Proposals

- Ecologically Sensitive Area (ESA)
- 10 feet wide walkway at both sides of the canal bank
- Sitting arrangements at convenient intervals (preferably at 100 feet interval).
- Boat ghats for canal safari.
- Lucrative bridges
- Food corners
- Selfie points



Map 0-5: Parbotir Khal Action Plan

1.23 Action Plan of Amtolar Khal

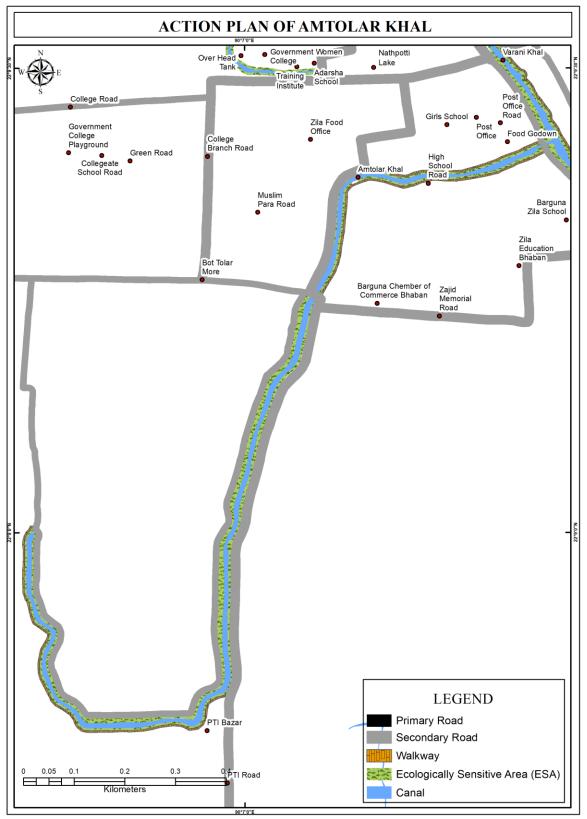
Amtolar Khal holds immense significance within the context of Barguna Paurashava, as it gracefully traverses through the very heart of the township, enveloped by major residential settlements. Regrettably, the canal has fallen victim to unchecked encroachment, a situation that calls for urgent attention. Restoring this waterway to its original state not only holds the promise of reinstating the region's natural equilibrium but also represents a step towards preserving its historical essence.

The revitalization endeavor goes beyond restoration; it envisions a comprehensive transformation aimed at enhancing the region's aesthetics and recreational potential. To this end, a meticulous plan has been devised, earmarking the canal's banks as an Ecologically Sensitive Area (ESA) where thoughtfully planned plantations will thrive. This strategic ecological approach not only promises to breathe life into the surroundings but also contributes to the overall environmental health of the region. The rejuvenation blueprint extends to the creation of walkways, inviting seating arrangements, and other essential amenities, collectively crafting an inviting and functional recreational space. This vision crystallizes as Amtolar Khal evolves into a bustling recreational hub, catering to the diverse leisure pursuits of the community.

Encompassing a stretch of approximately 2.2 kilometers, the comprehensive action area plan delves into the intricate details required to execute this ambitious revitalization. Notably, a sprawling area spanning 5.51 acres on both sides of the canal has been rightfully designated as an Ecologically Sensitive Area (ESA). This deliberate emphasis on preservation underscores the project's commitment to safeguarding the fragile ecosystem that harmoniously coexists with the urban landscape. The revival of Amtolar Khal encapsulates both historical restoration and visionary urban development. The undertaking stands as a testament to the potential of strategic ecological planning, sustainable beautification, and purposeful recreational space creation. As the revitalized Amtolar Khal assumes its role as a thriving recreational nucleus, it will serve as a beacon of progress, environmental consciousness, and community well-being, anchoring the region in a harmonious and prosperous future.

1.23.1 Major Proposals

- Ecologically Sensitive Area (ESA)
- 10 feet wide walkway at both sides of the canal bank
- Sitting arrangements at convenient intervals (preferably at 100 feet interval).
- Boat ghats for canal safari.
- Lucrative bridges
- Food corners
- Selfie points



Map 0-6: Action Plan of Amtolar Khal

1.24 Ward Action Plan of Barguna Paurashava

Barguna pourashava started its journey in 1974 with 9 wards with an area of 12.96 sqkm area. The present population is 40019 (BBS, 2022); the projected population by 2031 will be 46388 & by 2041 it will be 53464. Considering the demand of municipal population, the Ward Action Plan & land use proposal of each ward has been fixed up.

1.24.1 Action Plan of Ward No. 01

General Information

- Approximate Area is 1949.66 acre.
- Present population 5148 nos (BBS, 2022)
- Projected Population will be 6643 nos (2041)

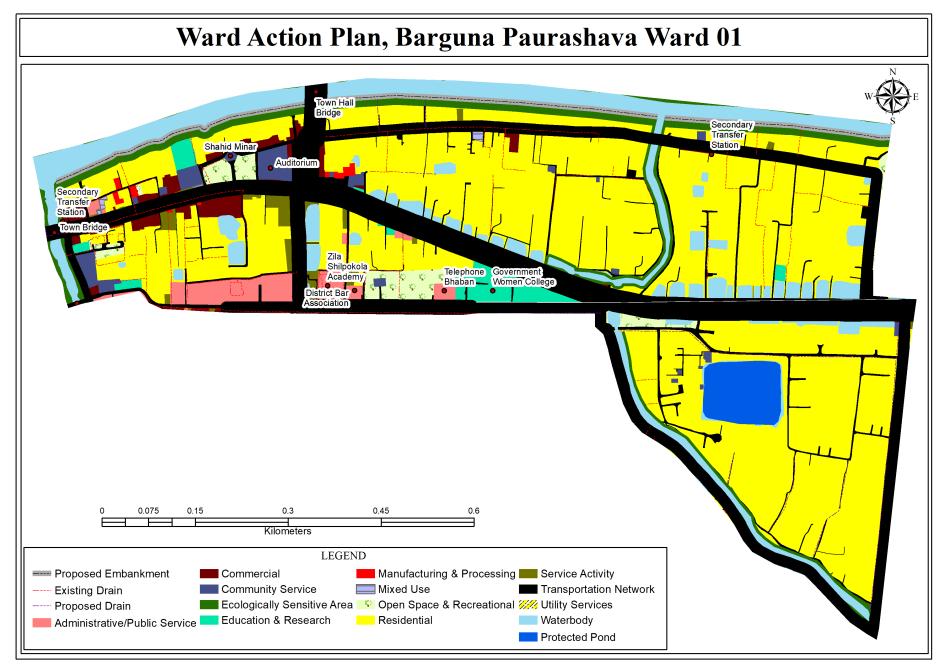
Significant Proposal

- High Density Residential Area
- Mixed Use zone with Residential preference
- Road Widening
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.1.1Land use Proposal

Table 0-1: Land Use Proposal of Ward no 01

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	2.94	1.90
Commercial	2.16	1.40
Community Service	2.00	1.30
Ecologically Sensitive Area	7.37	4.78
Education & Research	2.44	1.58
Manufacturing & Processing	0.29	0.19
Mixed Use	0.13	0.08
Open Space & Recreational	2.79	1.81
Residential	76.48	49.58
Service Activity	1.30	0.84
Transportation Network	33.88	21.96
Utility Services	0.01	0.01
Waterbody	22.46	14.56
Total	154.25	100.00



Map 0-7: Action Plan of Barguna Paurashava Ward no 01

1.24.2 Action Plan of Ward No. 02

General Information

- Approximate Area is 1445.56 acre.
- Present population 5130 nos (BBS, 2022)
- Projected Population will be 6625 nos (2041)

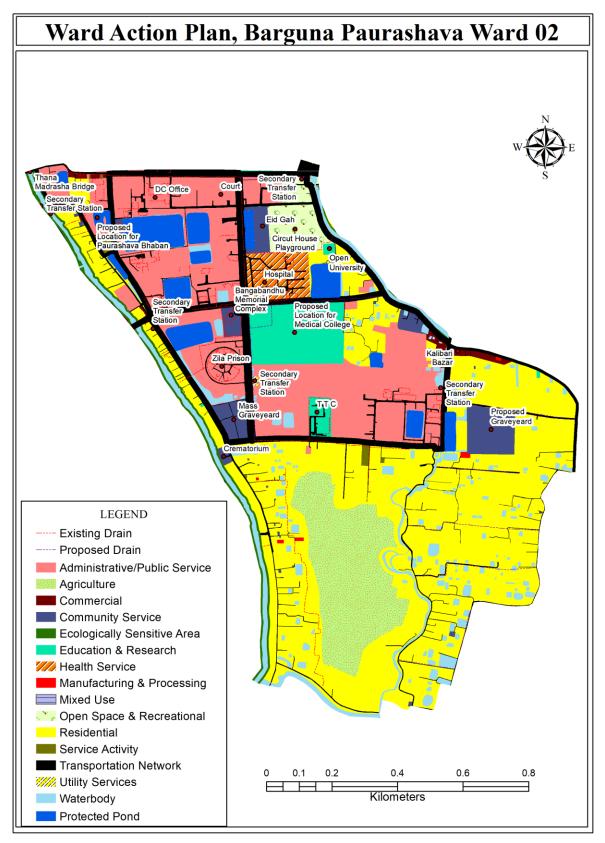
Significant Proposal

- Administrative Zone
- Proposed Graveyard
- Secondary Transfer Station
- locations for Paurashava bhaban relocation
- Proposed Medical College
- Road Widening
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.2.1Land use Proposal

Table 0-2: Land Use Proposal of Ward no 02

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	69.17	18.94
Agriculture	30.19	8.27
Commercial	1.72	0.47
Community Service	12.10	3.31
Ecologically Sensitive Area	5.47	1.50
Education & Research	15.18	4.16
Health Service	5.64	1.55
Manufacturing & Processing	0.30	0.08
Mixed Use	0.01	0.00
Open Space & Recreational	7.03	1.92
Residential	136.29	37.32
Service Activity	0.96	0.26
Transportation Network	40.03	10.96
Utility Services	0.19	0.05
Waterbody	40.92	11.21
Total	365.20	100.00



Map 0-8: Action Plan of Barguna Paurashava Ward no 02

1.24.3 Action Plan of Ward No. 03

General Information

- Approximate Area is 113.67 acre
- Present population 5046 nos (BBS, 2022)
- Projected Population will be 6541 nos (2041)

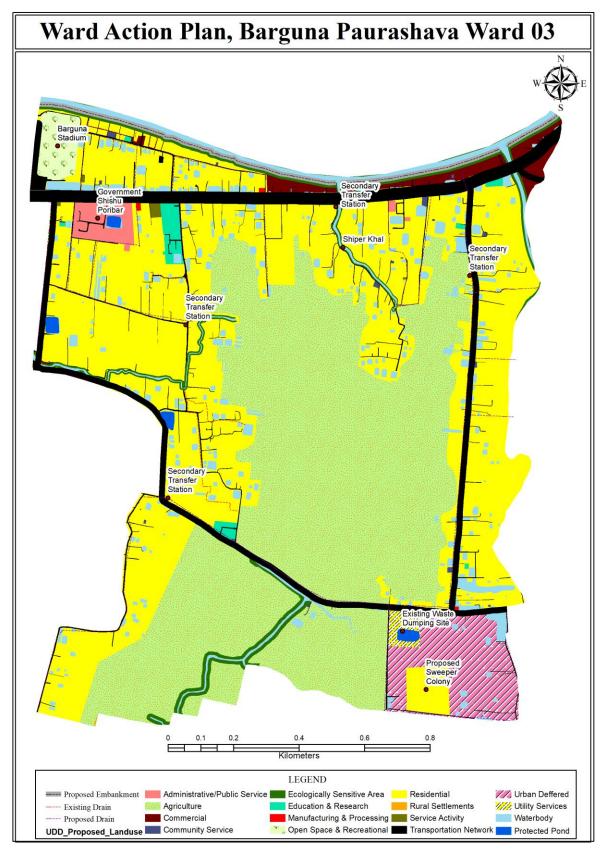
Significant Proposal

- Sweeper Colony
- Barguna Stadium Modernization
- Renovation of Existing Waste Dumping Site
- Multiple Secondary Transfer Station
- Road Widening
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.3.1Land use Proposal

Table 0-3: Land Use Proposal of Ward no 03

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	4.98	0.89
Agriculture	216.57	38.58
Commercial	6.60	1.18
Community Service	0.59	0.11
Ecologically Sensitive Area	13.50	2.40
Education & Research	3.47	0.62
Manufacturing & Processing	0.17	0.03
Open Space & Recreational	5.58	0.99
Residential	208.99	37.23
Rural Settlements	0.03	0.00
Service Activity	0.48	0.09
Transportation Network	42.17	7.51
Urban Deffered	20.59	3.67
Utility Services	2.74	0.49
Waterbody	34.93	6.22
Total	561.40	100.00



Map 0-9: Action Plan of Barguna Paurashava Ward No 03

1.24.4 Action Plan of Ward No. 04

General Information

- Approximate Area is 64.25 acre.
- Present population 5466 nos (BBS, 2022)
- Projected Population will be 6961 nos (2041)

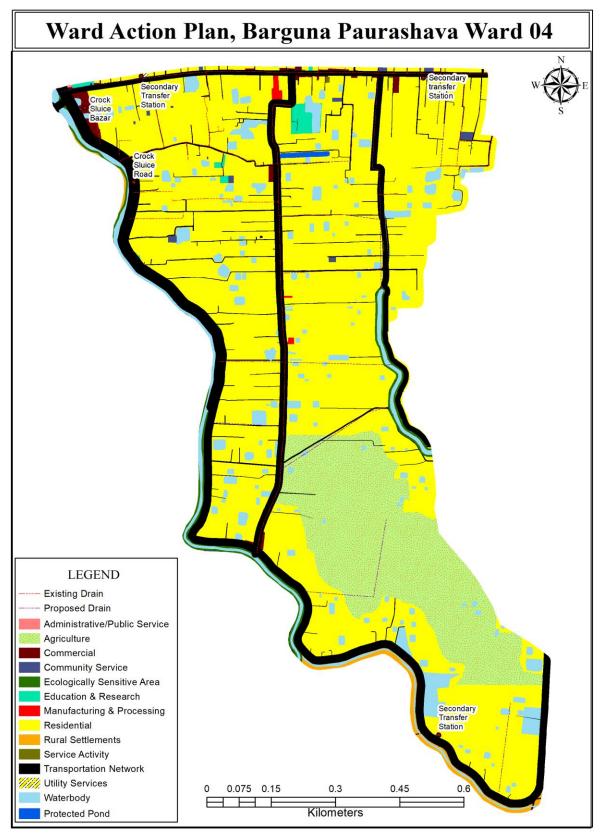
Significant Proposal

- Crock Sluice Bazar Renovation
- Multiple Secondary Transfer Station
- Road Widening
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.4.1Land use Proposal

Table 0-4: Land Use Proposal of Ward no 04

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	0.01	0.01
Agriculture	37.51	15.40
Commercial	1.14	0.47
Community Service	0.54	0.22
Ecologically Sensitive Area	2.64	1.09
Education & Research	1.08	0.44
Manufacturing & Processing	0.32	0.13
Residential	147.29	60.47
Rural Settlements	1.89	0.78
Service Activity	0.05	0.02
Transportation Network	31.24	12.83
Utility Services	0.10	0.04
Waterbody	19.74	8.11
Total	243.56	100.00



Map 0-10: Action Plan of Barguna Paurashava Ward No 04

1.24.5 Action Plan of Ward No. 05

General Information

- Approximate Area is 64.25 acre.
- Present population 5296 nos (BBS, 2022)
- Projected Population will be 6791 nos (2041)

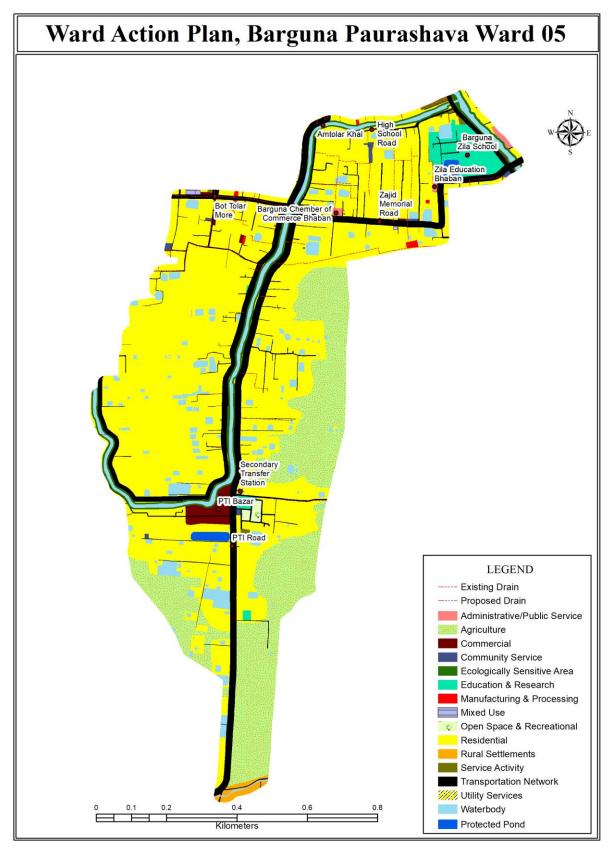
Significant Proposal

- PTI Bazar Renovation
- Road Widening
- Multiple Secondary Transfer Station
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.5.1Land use Proposal

Table 0-5: Land Use Proposal of Ward no 05

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	0.52	0.21
Agriculture	46.11	18.78
Commercial	2.21	0.90
Community Service	0.63	0.26
Ecologically Sensitive Area	5.41	2.20
Education & Research	5.40	2.20
Manufacturing & Processing	0.38	0.15
Mixed Use	0.19	0.08
Open Space & Recreational	0.56	0.23
Residential	135.62	55.24
Rural Settlements	0.90	0.37
Service Activity	0.47	0.19
Transportation Network	25.30	10.30
Utility Services	0.09	0.04
Waterbody	21.75	8.86
Total	245.53	100.00



Map 0-11: Action Plan of Barguna Paurashava Ward No 05

1.24.6 Action Plan of Ward No. 06

General Information

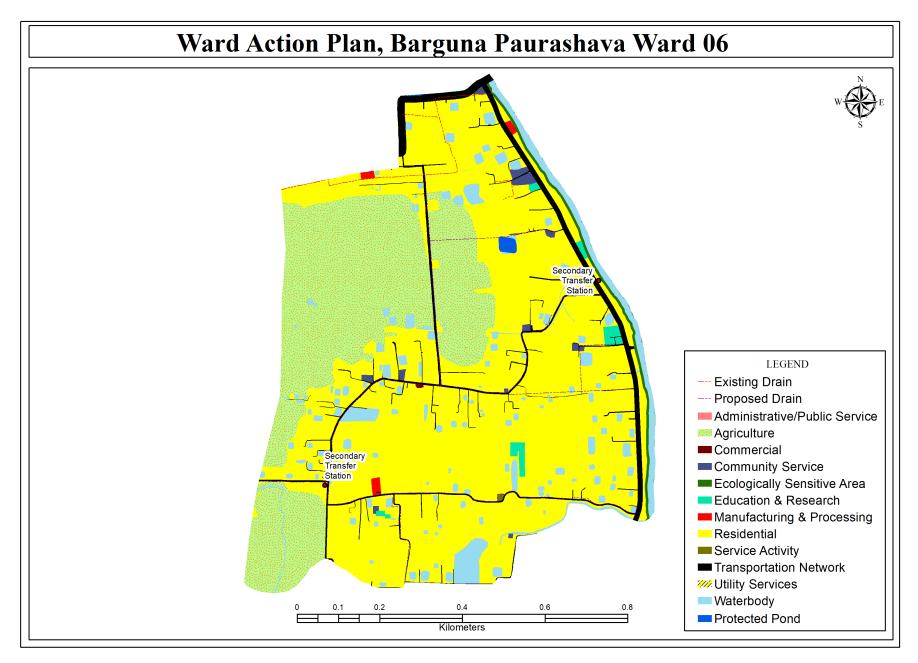
- Approximate Area is 29.65 acre.
- Present population 2187 nos (BBS, 2022)
- Projected Population will be 3682 nos (2041)

Significant Proposal

- Multiple Secondary Transfer Station
- General Residential Area
- Road Widening
- Drainage Proposal
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.6.1Land use Proposal

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	0.00	0.00
Agriculture	56.54	26.69
Commercial	0.04	0.02
Community Service	1.10	0.52
Ecologically Sensitive Area	1.77	0.83
Education & Research	1.23	0.58
Manufacturing & Processing	0.46	0.22
Residential	125.13	59.06
Service Activity	0.06	0.03
Transportation Network	9.98	4.71
Utility Services	0.05	0.02
Waterbody	15.52	7.32
Total	211.88	100.00



Map 0-12: Action Plan of Barguna Paurashava Ward No 06

1.24.7 Action Plan of Ward No. 07

General Information

- Approximate Area is 49.42 acre.
- Present population 2448 nos (BBS, 2022)
- Projected Population will be 3943 nos (2041)

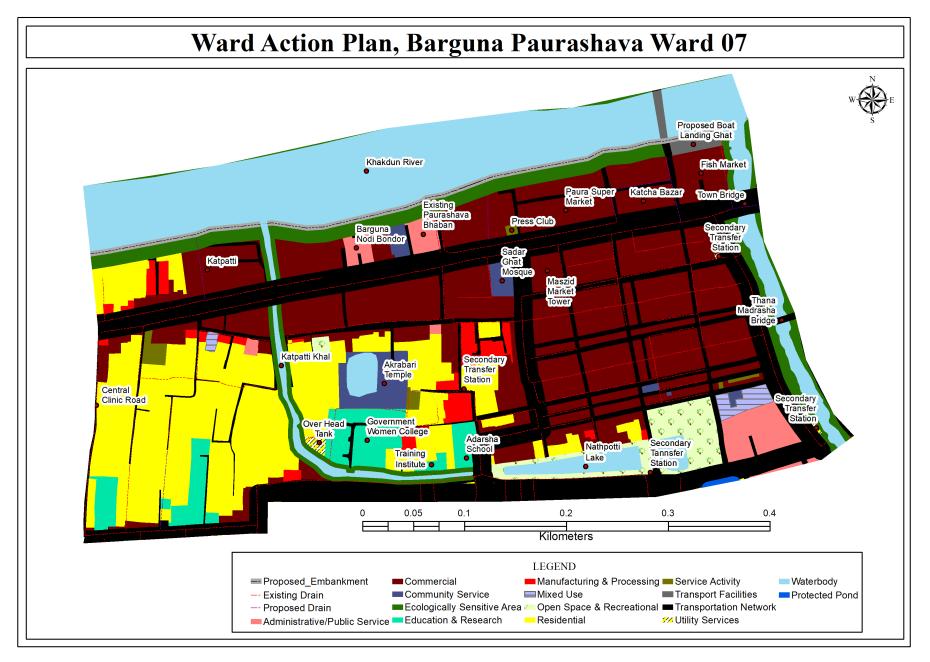
Significant Proposal

- Multiple Secondary Transfer Station
- General Residential Area
- Road Widening
- Drainage Proposal
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds

1.24.7.1Land use Proposal

Table 0-7: Land Use Proposal of Ward no 07

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	1.21	1.92
Commercial	15.05	23.79
Community Service	1.00	1.59
Ecologically Sensitive Area	4.02	6.36
Education & Research	1.95	3.09
Manufacturing & Processing	1.06	1.68
Mixed Use	0.30	0.48
Open Space & Recreational	1.36	2.15
Residential	9.95	15.72
Service Activity	0.26	0.41
Transport Facilities	0.29	0.46
Transportation Network	13.66	21.59
Utility Services	0.09	0.14
Waterbody	13.06	20.65
Total	63.27	100.00



Map 0-13: Action Plan of Barguna Paurashava Ward No 07

1.24.8 Action Plan of Ward No. 08

General Information

- Approximate Area is 66.72 acre.
- Present population 4562 nos (BBS, 2022)
- Projected Population will be 6057 nos (2041)

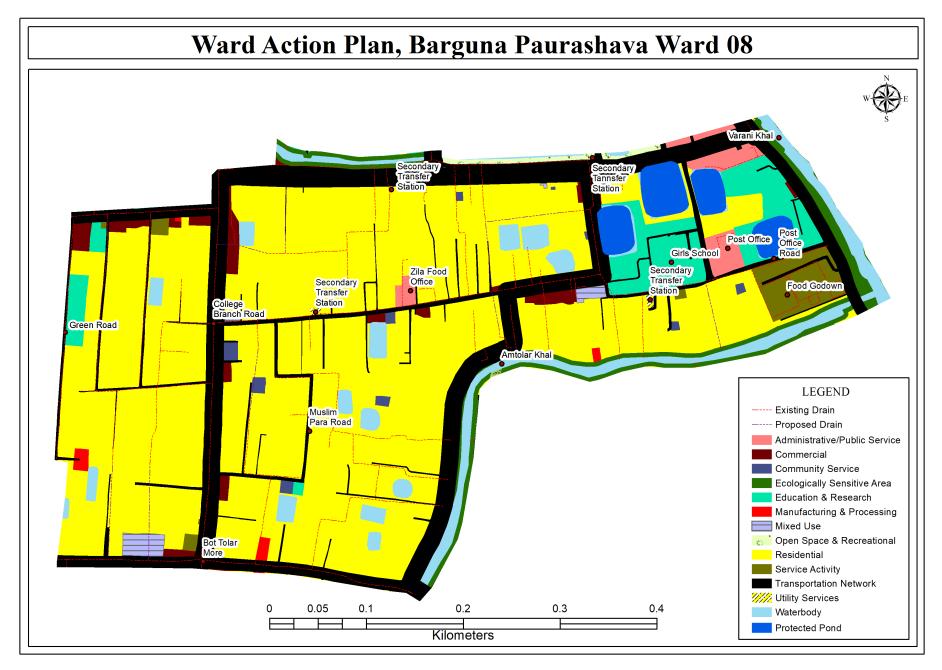
Significant Proposal

- Planned Residential Area
- Road Widening
- Drainage Proposal
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.8.1Land use Proposal

Table 0-8: Land Use Proposal of Ward no 08

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	0.86	1.30
Commercial	0.97	1.47
Community Service	0.32	0.48
Ecologically Sensitive Area	1.96	2.96
Education & Research	3.07	4.62
Manufacturing & Processing	0.19	0.28
Mixed Use	0.44	0.66
Administrative/Public Service	0.25	0.38
Residential	38.20	57.53
Service Activity	1.24	1.87
Transportation Network	11.79	17.75
Utility Services	0.05	0.08
Waterbody	7.04	10.61
Total	66.41	100.00



Map 0-14: Action Plan of Barguna Paurashava Ward No 08

1.24.9 Action Plan of Ward No. 09

General Information

- Approximate Area is 64.25 acre.
- Present population 4736 nos (BBS, 2022)
- Projected Population will be 6231 nos (2041)

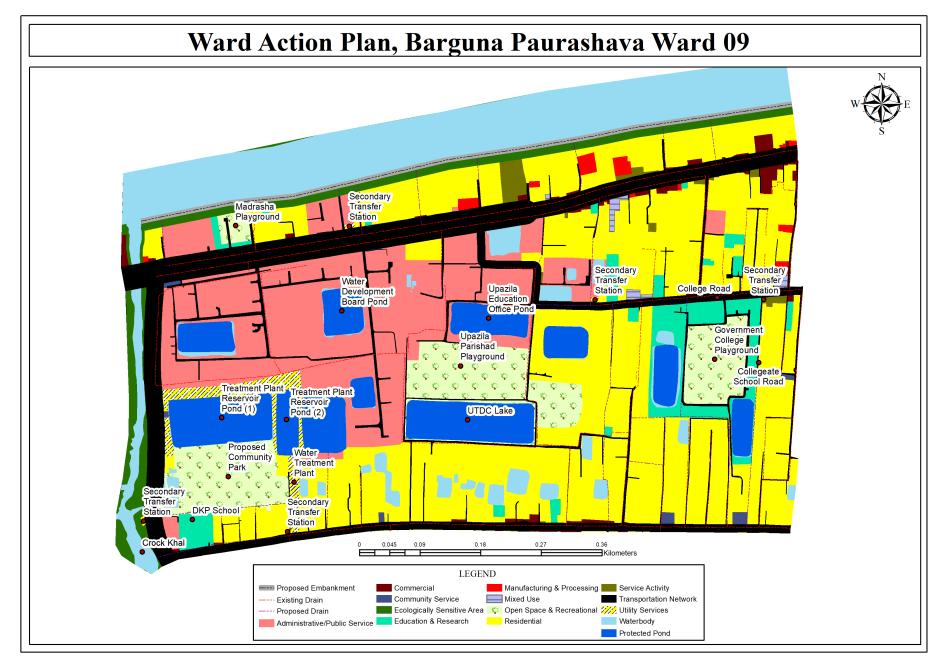
Significant Proposal

- Planned Residential Area
- Road Widening
- Drainage Proposal
- Ponds which are larger than 1 Bigha (0.33 acre approx.) are declared as Protected Ponds.

1.24.9.1Land use Proposal

Table 0-9: Land Use Proposal of Ward no 09

Proposed Land Use	Area in Acre	Percentage
Administrative/Public Service	22.32	14.17
Commercial	1.09	0.69
Community Service	0.31	0.20
Ecologically Sensitive Area	5.63	3.57
Education & Research	4.68	2.97
Manufacturing & Processing	0.73	0.46
Mixed Use	0.38	0.24
Open Space & Recreational	11.84	7.51
Residential	48.78	30.96
Service Activity	0.85	0.54
Transportation Network	20.38	12.93
Utility Services	1.92	1.22
Waterbody	38.66	24.54
Total	157.57	100.00



Map 0-15: Action Plan of Barguna Paurashava Ward No 09

IMPLEMENTATION & COORDINATION

1.25 Development Coordination

In order to ensure the effective planning and development of Barguna Paurashava, it is crucial to have a coordinated effort among the implementing agencies responsible for major development initiatives. Currently, there is a noticeable deficiency in the existing system due to the absence of a coordinated approach in setting priorities and implementing projects. Recognizing these challenges, the Structure Plan of the Plan proposes the establishment of a higher tier authority known as the Implementation Committee. This committee aims to address the shortcomings by facilitating coordination among the relevant agencies and fostering a unified approach to planning and development.

The integrated planning and development of Barguna Paurashava requires the collaboration and cooperation of various implementing agencies. These agencies hold significant responsibilities for driving development initiatives within the area. However, the absence of a coordinated approach to prioritize projects and ensure their smooth implementation has become a notable drawback within the current system. To overcome these issues, the Structure Plan of the Plan introduces the concept of an Implementation Committee. This proposed higher tier authority aims to bridge the coordination gap and enhance the effectiveness of planning and development efforts. The Implementation Committee would serve as a central coordinating body, responsible for harmonizing the activities of the implementing agencies and fostering a cohesive and synchronized approach.

By establishing the Implementation Committee, the Structure Plan intends to address the apparent deficiencies in the existing system. This committee would play a pivotal role in coordinating the various development responsibilities, setting priorities, and overseeing the implementation of projects. Through its collaborative efforts, the Implementation Committee would ensure that the integrated planning and development of Barguna Paurashava proceed smoothly and efficiently. Recognizing the need for a coordinated approach, the Structure Plan proposes the establishment of the Implementation Committee. This committee would serve as a higher tier authority, responsible for coordinating the activities of the implementing agencies and addressing the deficiencies in the existing system. By fostering collaboration and synchronizing efforts, the Implementation Committee aims to enhance the effectiveness of planning and development in Barguna Paurashava.

The proposed committee for Barguna Paurashava would comprise key stakeholders, including the Paura Meyor (Mayor), Ward Councilors, and representatives from both government and non-government

entities. Chaired by the Mayor, this committee would also include local heads of all local government bodies and representatives from various development agencies. To facilitate its functions effectively, a comprehensive ordinance is required for Barguna Paurashava. One of the crucial functions of this committee would be investment planning. It would aim to bring together the implementing agencies and encourage their cooperation in developing a partially integrated development program. This would involve making mutually agreed adjustments to projects and programs to ensure synergy and avoid duplication of efforts.

As the committee evolves, it can assume a more significant role by evaluating the projects and programs proposed by individual agencies in relation to one another. This assessment would help in determining overall priorities for expenditure. The ultimate goal would be to prepare a comprehensive Multi-Sectoral Investment Program (MSIP) that takes into account the diverse needs and objectives of the various sectors involved in Barguna Paurashava's development. By establishing the committee and defining its objectives, the aim is to foster collaboration and coordination among the implementing agencies. The committee would serve as a platform for stakeholders to discuss and align their efforts, leading to the production of a partially integrated development program. As the committee progresses, it would transition into a more proactive role of assessing and prioritizing projects, ultimately culminating in the preparation of the Multi-Sectoral Investment Program (MSIP).

To enable the committee to carry out its functions effectively, it is essential to have a robust ordinance specifically designed for Barguna Paurashava. This ordinance would outline the committee's composition, roles, responsibilities, decision-making processes, and any necessary legal frameworks to support its activities.

In summary, the proposed committee for Barguna Paurashava would consist of key stakeholders, including government officials, local representatives, and development agency representatives. Its primary function would be investment planning, aiming to create a partially integrated development program through collaborative adjustments to projects and programs. Over time, the committee would evolve into assessing projects, prioritizing expenditure, and preparing the Multi-Sectoral Investment Program (MSIP). To support these activities, a comprehensive ordinance tailored to Barguna Paurashava's needs would be necessary.

1.25.1 Tasks of the Committee:

The Committee can perform several tasks to ensure coordination of activities and project programming in the Paurashava area. The general process is outlined below:

1. Identification of on-going and planned projects and programs in the Paurashava area.

The Committee would compile a comprehensive list of all known on-going and planned projects and programs within the jurisdiction of Barguna Paurashava. This list would encompass initiatives undertaken by various government agencies, as well as significant projects from the private sector. To accomplish this, the Committee would conduct thorough research and engage with relevant stakeholders. It would gather information about ongoing projects, programs, and initiatives, considering a wide range of government agencies and major private sector enterprises operating within the Paurashava area.

The objective of this task is to have a clear understanding of the existing and upcoming development activities within Barguna Paurashava. By identifying these projects and programs, the Committee can assess their scope, progress, and potential impact on the overall development of the area. The compiled list would serve as a valuable resource for the Committee to evaluate and prioritize projects, avoid duplication of efforts, identify potential synergies, and make informed decisions regarding resource allocation and implementation strategies.

In summary, the Committee would be tasked with identifying and creating a comprehensive list of both ongoing and planned projects and programs within the jurisdiction of Barguna Paurashava. This would involve gathering information from various government agencies and major private sector enterprises, aiming to have a clear overview of the development activities taking place in the area. A

2. Evaluation of the projects and programs to assess conformity with the Structure Plan.

The Committee would undertake the task of evaluating each of the identified projects and programs to determine their conformity with the objectives and policies outlined in the Structure Plan. This evaluation process is crucial to ensure that the projects and programs align with the overall vision and goals set forth in the plan. During the evaluation, the Committee would assess whether each project and program adheres to the policies and guidelines specified in the Structure Plan. Projects that are found to be in alignment with the plan would be acknowledged, and reference would be made to the specific policies they support. This would help establish a clear connection between the project and the objectives of the Structure Plan, highlighting its positive contribution to the envisioned development of Barguna Paurashava.

Conversely, if any projects or programs are deemed not to conform to the Urban Area Plan, the Committee would make note of this deviation. Reference would be provided to the policies within the plan that these projects or programs run counter to, indicating the areas of non-compliance. This evaluation process allows the Committee to identify potential conflicts and inconsistencies between proposed initiatives and the intended direction of development outlined in the Structure Plan. By evaluating projects and programs against the Structure Plan, the Committee ensures that the chosen initiatives contribute to the overall vision and policy framework established for Barguna Paurashava. This evaluation process helps maintain consistency, coherence, and effectiveness in the implementation of development activities within the area.

In summary, the Committee would evaluate each identified project and program to determine its conformity with the objectives and policies of the Structure Plan. Projects that align with the plan would be acknowledged, and reference would be made to the supporting policies. For projects that do not conform, reference would be given to the policies to which they run counter. This evaluation process enables the Committee to maintain consistency and coherence in the implementation of projects and programs, ensuring they contribute to the envisioned development of Barguna Paurashava.

3. Identification of on-going or planned projects and programs that should be stopped.

As part of the evaluation process, the Committee may identify a small number of ongoing or planned projects and programs that conflict with the objectives or policies outlined in the Structure Plan. While conducting the evaluation, it is possible to discover initiatives that are not in line with the intended direction of development for Barguna Paurashava. However, it is important to note that stopping ongoing projects may pose challenges, particularly if they have reached an advanced stage of implementation. In such cases, it might be difficult for the Committee or the Authority to halt these projects due to various reasons, such as contractual obligations, financial implications, or practical constraints. Nevertheless, it is still essential to identify them and recognize their misalignment with the Structure Plan.

On the other hand, for planned projects and programs that have not yet started or are in the early stages, the identification of non-conformity provides an opportunity for the government to reassess their relevance and worth. By recognizing their misalignment with the Structure Plan at an earlier stage, the government can prevent unnecessary investments and avoid wasted resources on initiatives that do not support the envisioned development of Barguna Paurashava. In the future, the Committee should aim to identify projects and programs that do not conform to the Structure Plan at an earlier stage, ideally during the planning phase itself. By doing so, the Committee can prevent the initiation of projects that are not aligned with the plan, thus avoiding the need to stop them later on and minimizing the associated costs and efforts.

In summary, while evaluating projects and programs, the Committee may identify a few ongoing or planned initiatives that conflict with the objectives or policies of the Structure Plan. Stopping ongoing projects may present challenges, but the government can reconsider the worth of planned initiatives that are found to be non-conforming. Going forward, early identification of non-conforming projects can help prevent the initiation of such initiatives, saving resources and ensuring a more successful implementation of the Structure Plan.

4. Identification of on-going or planned projects and programs that should continue to be given priority.

During the evaluation process mentioned earlier, the Committee would also identify a small number of ongoing or planned projects and programs that align strongly with the objectives and policies of the Structure Plan. These initiatives demonstrate a significant contribution towards realizing the envisioned development of Barguna Paurashava and, as a result, should continue to be given priority. Based on the evaluation findings, the Committee would highlight these high-priority projects and programs. Their alignment with the Structure Plan would be emphasized, indicating their potential to effectively support the objectives and policies outlined in the plan. These initiatives are considered crucial for the overall development of Barguna Paurashava and should be accorded special attention and resources.

By identifying and prioritizing these projects and programs, the Committee ensures that resources and efforts are directed towards endeavors that have a high likelihood of success and significant impact on the desired development outcomes. These prioritized initiatives can serve as key drivers in the realization of the Structure Plan's objectives and policies, leading to tangible improvements in the social, economic, and environmental aspects of Barguna Paurashava.

In summary, during the evaluation process, the Committee would identify a small number of ongoing or planned projects and programs that strongly align with the objectives and policies of the Structure Plan. These initiatives, due to their substantial contribution towards realizing the development goals, should continue to be given priority. By focusing resources and attention on these high-priority endeavors, the Committee ensures effective implementation of the Structure Plan and maximizes the impact of development efforts in Barguna Paurashava.

5. Preparation of a development programme.

Preparation of a development program for the next five years is a crucial step in the overall process. The Committee would undertake the responsibility of formulating a tentative development program that covers the upcoming Five-Year Development Plan period. This program would serve as a roadmap for guiding the implementation of development initiatives within Barguna Paurashava. The development program should outline the key priorities, projects, and programs that need to be undertaken during the designated period. It should be aligned with the objectives and policies of the Structure Plan and take into account the evaluation of projects and programs conducted by the Committee. The program should reflect the identified high-priority initiatives and consider the resources and capacities available for implementation.

To ensure the effectiveness and relevance of the development program, it is essential for the Committee to regularly update and review it. This process involves continuous monitoring, evaluation, and adjustment to reflect changing circumstances, emerging needs, and progress made in the implementation of projects. By adopting a rolling forward approach, the Committee can maintain an updated and dynamic development program that stays in line with the evolving requirements of Barguna Paurashava. As the process matures, the Committee can take on a more proactive role, leading the actions of the implementing agencies. This involves preparing briefs or guidelines for the agencies to assist them in aligning their individual projects and programs with the overall development objectives of Barguna Paurashava. These briefs would provide the agencies with a clear understanding of the desired outcomes, priorities, and standards they should adhere to when proposing their initiatives. By guiding the agencies in this manner, the Committee ensures greater coherence and coordination in the implementation of projects, leading to a more integrated and impactful development program.

In summary, the Committee would be responsible for preparing a development program for the next five years, aligned with the objectives and policies of the Structure Plan. This program would outline priorities, projects, and programs for implementation within Barguna Paurashava. The Committee would regularly update and review the program, incorporating changes and progress made. Additionally, the Committee would provide briefs or guidelines to the implementing agencies to align their projects with the overall development objectives of the area. By undertaking these activities, the Committee ensures the development program remains relevant, coordinated, and effective in driving the desired development outcomes in Barguna Paurashava.

1.25.2 Structure Plan Policies for Development Coordination

INSA.01 Formulate 'Higher Tier Authority '

The main objectives of forming a higher tier planning authority (Implementation Committee) are to provide services at a level that caters for the population requirements, enhances the know-how transfer and updates the regulations which contributes to the development of human resources and to increase their efficiency and skills.

INSA.04 Ensure coordination among the organizations working with the same goals and objectives.

Co-ordination among different development organizations must be ensured to have an effective implementation of the Set of Plans. Careful distribution of the tasks among the different organizations and coordinating and monitor these regularly will ensure the implementation of the Structure plan as a whole. Coordination will take place through MG. Organizations working in the same field for example in economic or structure field are needed to sit together to work out their plans and programs to achieve the structure plan's goals and objectives and MG should act as a moderator of such meeting to ensure that all projects and programs are following the Set of Plans of the area. MG will also assist different organizations to understand the goals and objectives of the new Set of Plans to identify their future tasks. This will ensure to save time, money and other resources and make sure to use public and private resources effectively and efficiently

1.26 Building Permission & Land Use Clearance

After opening the Padma Bridge & other mega project in southern region, a vast window of opportunity has been opened for Barguna. The very common investment in Barguna Paurashava is Fisheries and marine resource as well as watermelon production. A dedicated EPZ has been proposed in the New urban area of the Paurashava to farther boost up the productivity of the region.

Due to rapid urbanization, haphazard development pattern can be seen throughout the paura area. To Control this kind of haphazard development & to promote synchronized development this plan has made various development proposals & guidelines like Strategic Planning Zone (SPZ), building height restriction etc. All these guidelines & regulation of the plan along with existing act needs to needs to implemented otherwise it will not be able to help in the long run.

Barguna Paurashava will execute the planning guidelines of the plan with the committee approval.

1.27 Custodian of Barguna Masterplan

The Urban Development Directorate (UDD) is the custodian of Barguna Paurashava master plan. At present urban Development Directorate (UDD) is responsible to clarify, explain, review & update of the plan.

1.28 Review & Updates of Barguna Masterplan

Considering the rapid urbanization & rapid changes, this Barguna Paurashava masterplan has the provision of Updating itself by three (03) years interval.

SUGGESTION & CONCLUSION

1.29 Conclusion

Barguna Paurashava Urban Area Plan represents a visionary and comprehensive blueprint for the sustainable development and growth of the Paurashava. Throughout this planning process, extensive efforts have been made to address the various challenges faced by the urban environment, while also capitalizing on the Paurashava's inherent strengths and opportunities.

The plan prioritizes the well-being and prosperity of its residents, ensuring that social equity, inclusivity, and community participation are at its core. With a focus on infrastructure development, the plan aims to enhance connectivity, accessibility, and mobility within the urban area, fostering a vibrant and interconnected landscape.

Environmental sustainability has been meticulously woven into the fabric of the plan, with measures designed to protect natural resources, mitigate climate risks, and promote eco-friendly practices. By incorporating green spaces, promoting renewable energy, and encouraging sustainable building designs, the Paurashava can thrive while preserving its unique ecological identity.

The economic growth and prosperity of Barguna Paurashava are also emphasized, as the plan seeks to foster a conducive environment for business, industry, and entrepreneurship. By investing in education, healthcare, and skill development, the plan aspires to cultivate a capable and empowered workforce that can contribute to its sustainable economic growth.

The inclusion of Strategic Planning Zones (SPZ) in the Barguna Paurashava Urban Area Plan demonstrates a thoughtful approach to development control, ensuring that growth occurs in a well-organized and sustainable manner. By defining clear land use regulations, the plan aims to strike a balance between promoting permissible activities in designated zones while safeguarding agricultural land and ecologically sensitive areas from potential harm. This measure is vital to protect the region's natural resources, biodiversity, and overall environmental health.

The proposal for an Export Processing Zone (EPZ) in proximity to the existing one is a strategic move to create employment opportunities and foster economic growth in the area. Such initiatives can attract investments, boost industrial activities, and consequently enhance the livelihoods of local communities. The plan's emphasis on job creation aligns with the broader goal of promoting socio-economic progress within the Paurashava.

The canal recovery and beautification project signify a significant breakthrough, as it not only enhances the aesthetic appeal of the urban area but also contributes to environmental preservation and water resource management. Revitalizing the canal can have positive implications for water quality, flood control, and recreational spaces, improving the overall quality of life for residents.

Addressing public demand, the proposal for a University near the Barguna Central Bus Stand and a Medical College near Sadar Hospital responds to the community's educational and healthcare needs. These institutions will not only attract students and medical professionals but also stimulate intellectual and medical advancements in the region. The proximity of educational and medical facilities can also bolster the urban area's overall attractiveness and contribute to its growth as an educational and medical hub.

The plan's success greatly depends on effective governance and collaboration among various stakeholders, including local authorities, residents, businesses, and non-governmental organizations. Transparency, accountability, and adaptive management are vital components that will ensure the plan remains dynamic and responsive to the evolving needs of the Paurashava.

It is essential to remember that the implementation of the plan will be an ongoing process, requiring patience, dedication, and perseverance. Through collective effort and commitment, Barguna Paurashava can transform into a model urban center that serves as a benchmark for other Paurashavas to follow.

In conclusion, the Barguna Paurashava Urban Area Plan sets the stage for a sustainable, inclusive, and prosperous future, wherein its residents can enjoy an improved quality of life while embracing its unique cultural heritage. With a clear vision and determination, the realization of this plan will undoubtedly shape Barguna Paurashava into a thriving and resilient urban community for generations to come.

Annexure I: Industrial Classification of Department of Environment (DoE)

List of General industries

1. Green and Orange A Industries:

GREEN Category

- 1. Assembling and manufacturing of TV, Radio, etc.
- 2. Assembling and manufacturing of clocks and watches.
- 3. Assembling of telephones.
- 4. Assembling and manufacturing of toys (plastic made items excluded).
- 5. Bookbinding.
- 6. Rope and mats (made of cotton, jute and artificial fibers).
- 7. Photography (movie and x-ray excluded).
- 8. Production of artificial leather goods.
- 9. Assembling of motorcycles, bicycles and toy cycles.
- 10. Assembling of scientific and mathematical instruments (excluding manufacturing).
- 11. Musical instruments.
- 12. Sports goods (excluding plastic made items).
- 13. Tea packing (excluding processing).
- 14. Re-packing of milk powder (excluding production).
- 15. Bamboo and cane goods.
- 16. Artificial flower (excluding plastic made items).
- 17. Pen and ball-pen.
- 18. Gold ornaments (excluding production) (shops only).
- 19. Candle.
- 20. Medical and surgical instrument (excluding production).
- 21. Factory for production of cork items (excluding metallic items).
- 22. Laundry (excluding washing).

ORANGE-A Category

- 1. Dairy Farm, 10 (ten) cattle heads or below in urban areas and 25 cattle heads or below in rural areas.
- 2. Poultry (up to 250 in urban areas and up to 1000 in rural areas).
- 3. Grinding/husking of wheat, rice, turmeric, pepper, pulses (up to 20 Horse Power).
- 4. Weaving and handloom.
- 5. Production of shoes and leather goods (capital up to 5 hundred thousand Taka).
- 6. Sawmill/wood sawing.
- 7. Furniture of wood/iron, aluminum, etc., (capital up to 5 hundred thousand Taka).
- 8. Printing Press.
- 9. Plastic & rubber goods (excluding PVC).
- 10. Restaurant.

- 11. Cartoon/box manufacturing/printing packaging.
- 12. Cinema Hall
- 13. Dry-cleaning.
- 14. Production of artificial leather goods (capital up to 5 hundred thousand Taka).
- 15. Sports goods.
- 16. Production of salt (capital up to 10 hundred thousand Taka).
- 17. Agricultural machinery and equipment.
- 18. Industrial machinery and equipment.
- 19. Production of gold ornaments.
- 20. Pin, U Pin.
- 21. Frames of spectacles.
- 22. Comb.
- 23. Production of utensils and souvenirs of brass and bronze.
- 24. Factory for production of biscuit and bread (capital up to 5 hundred thousand Taka).
- 25. Factory for production of chocolate and lozenge. (capital up to 5 hundred thousand Taka).
- 26. Manufacturing of wooden water vessels.

2. Modified list of orange B

ORANGE-B Category

- 1. PVC items.
- 2. Artificial fiber (raw material).
- 3. Glass factory.
- 4. Life saving drug (applicable to formulation only).
- 5. Edible oil.
- 6. Jute mill.
- 7. Hotel, multi-storied commercial & apartment building.
- 8. Casting.
- 9. Aluminum products.
- 10. Glue (excluding animal glue).
- 11. Bricks/tiles.
- 12. Lime.
- 13. Plastic products.
- 14. Processing and bottling of drinking water and carbonated drinks.
- 15. Galvanizing.
- 16. Perfumes, cosmetics.
- 17. Flour (large)
- 18. Stone grinding, cutting, polishing.
- 19. Processing fish, meat, and food.
- 20. Printing and writing ink.
- 21. Animal feed.

- 22. Ice-cream.
- 23. Clinic and pathological lab.
- 24. Utensils made of clay and china clay/sanitary wares (ceramics).
- 25. Processing of prawns & shrimps.
- 26. Water purification plant.
- 27. Metal utensils/spoons etc.
- 28. Sodium silicate.
- 29. Matches.
- 30. Starch and glucose.
- 31. Animal feed.
- 32. Automatic rice mill.
- 33. Automatic rice mill.
- 34. Assembling of motor vehicles.
- 35. Manufacturing of wooden vessel.
- 36. Photography (activities related to production of films for movie and x-ray).
- 37. Tea processing.
- 38. Production of powder milk/condensed milk/dairy.
- 39. Wood treatment.
- 40. Soap.
- 41. Repairing of refrigerators.
- 42. Repairing of metal vessel.
- 43. Engineering works (up to 10 hundred thousand Taka capital.)
- 44. Spinning mill.
- 45. Electric cable.
- 46. Cold storage.
- 47. Tire re-treading.
- 48. Motor vehicles repairing works (up to 10 hundred thousand Taka capital).
- 49. Cattle farm: above 10 (ten) numbers in urban area, and above 25 (twenty five) numbers in rural area.

50. Poultry: Number of birds above 250 (two hundred fifty) in urban area and above 1000 (one thousand) in rural area.

- 51. Grinding/husking wheat, rice, turmeric, chilly, pulses machine above 20 Horse Power.
- 52. Production of shoes and leather goods, above 5(five) hundred thousand Taka capital.
- 53. Furniture of wood/iron, aluminum, etc., above 5 (five) hundred thousand Taka capital.
- 54. Production of artificial leather goods, above 5(five) hundred thousand Taka capital.
- 55. Salt production, above 10(ten) hundred thousand Taka capital.
- 56. Biscuit and bread factory, above 5 (five) hundred thousand Taka capital.
- 57. Factory for production of chocolate and lozenge, above 5(five) hundred thousand Taka capital.
- 58. Garments and sweater production.
- 59. Fabric washing.
- 60. Power loom.
- 61. Construction, re-construction, and extension of road (feeder road, local road).
- 62. Construction, re-construction, and extension of bridge (length below 100 meters).

63. Public toilet.

64. Ship-breaking.

3. Red Category Industries (modified list of DOE)

- 1. Tannery.
- 2. Formaldehyde.
- 3. Urea fertilizer.
- 4. T.S.P. Fertilizer.
- 5. Chemical dyes, polish, varnish, enamel.
- 6. Power plant.
- 7. All mining projects (coal, limestone, hard rock, natural gas, mineral oil, etc.)
- 8. Cement.
- 9. Fuel oil refinery.
- 10. Artificial rubber.
- 11. Paper and pulp.
- 12. Sugar.
- 13. Distillery.
- 14. Fabric dying and chemical processing.
- 15. Caustic soda, potash.
- 16. Other alkalis.
- 17. Production of iron and steel.
- 18. Raw materials of medicines and basic drugs.
- 19. Electroplating.
- 20. Photo films, photo papers and photo chemicals.
- 21. Various products made from petroleum and coal.
- 22. Explosives.
- 23. Acids and their salts (organic or inorganic).
- 24. Nitrogen compounds (Cyanide, Cyanamid etc.).
- 25. Production of plastic raw materials (PVC, PP/Iron, Polyesterin etc.)
- 26. Asbestos.
- 27. Fiberglass.
- 28. Pesticides, fungicides, and herbicides.
- 29. Phosphorus and its compounds/derivatives.
- 30. Chlorine, fluorine, bromine, iodine, and their compounds/derivatives.
- 31. Industry (excluding nitrogen, oxygen, and carbon dioxide).
- 32. Waste incinerator.
- 33. Other chemicals.
- 34. Ordnance.

- 35. Nuclear power.
- 36. Wine.
- 37. Non-metallic chemicals not listed elsewhere.
- 38. Non-metals not listed elsewhere.
- 39. Industrial estate.
- 40. Basic industrial chemicals.
- 41. Non-iron basic metals.
- 42. Detergent.
- 43. Landfilling by industrial, household and commercial wastes.
- 44. Sewage treatment plant.
- 45. Lifesaving drugs.
- 46. Animal glue.
- 47. Rodenticide.
- 48. Refractory's.
- 49. Industrial gas (Oxygen, Nitrogen & Carbon-dioxide).
- 50. Battery.
- 51. Hospital.
- 52. Ship manufacturing.
- 53. Tobacco (processing/cigarette/Bin-making).
- 54. Metallic boat manufacturing.
- 55. Wooden boat manufacturing.
- 56. Refrigerator/air-conditioner/air-cooler manufacturing.
- 57. Tire and tubes
- 58. Board mills
- 59. Carpets.
- 60. Engineering works.
- 61. Repairing of motor vehicles
- 62. Water treatment plant.
- 63. Sewerage pipeline laying/relaying/extension.
- 64. Water, power, and gas distribution line laying/relaying/extension.
- 65. Exploration/extraction/distribution of mineral resources.
- 66. Construction/reconstruction/expansion of flood control embankment, polder, dike, etc.
- 67. Construction/reconstruction/expansion of road (regional, national & international).
- 68. Construction/reconstruction/expansion of bridge (length 100 meter and above).
- 69. Mureate of Potash (manufacturing).
- 70. Alcatraz.
- 71. Carbon rod.
- 72. Re-rolling

ANNEXURE-II: PROJECT TEAM

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